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## CRITERIA 3

### **3.4.7 & 3.4.8 - Publications in Scopus and WoS**

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Page 1 (Records 1 -- 50)

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**Record 1 of 250****Title:** Artificial neural network modeling of a photovoltaic-thermal evaporator of solar assisted heat pumps**Author(s):** Gunasekar, N (Gunasekar, N.); Mohanraj, M (Mohanraj, M.); Velmurugan, V (Velmurugan, V.)**Source:** ENERGY **Volume:** 93 **Pages:** 908-922 **DOI:** 10.1016/j.energy.2015.09.078 **Part:** 1 **Published:** DEC 15 2015**Times Cited in Web of Science Core Collection:** 33**Total Times Cited:** 34**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 21**Cited References:** Agrawal S, 2011, SOL ENERGY, V85, P356, DOI 10.1016/j.solener.2010.11.013

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**Abstract:** In this work, the artificial neural network model was developed to predict the energy performance of a photovoltaic-thermal evaporator used in solar assisted heat pumps. The experiments were carried out under the meteorological conditions of Coimbatore city (latitude of 10.98 degrees N and longitude of 76.96 degrees E) in India. The energy performance parameters of a photovoltaic-thermal evaporator such as, evaporator heat gain, solar energy input ratio, photovoltaic efficiency and photovoltaic panel temperature were observed with reference to four ambient parameters such as, solar intensity, ambient temperature, ambient wind velocity and ambient relative humidity. The experimental results were used as training data for the network. The multilayer feed forward network is optimized to 4-15-4 configuration for predicting the energy performance of the photovoltaic-thermal evaporator. Analysis of variance was carried out to identify the significant ambient parameter influencing the energy performance of photovoltaic-thermal evaporators. The network predictions are found to be closer to the experimental values with the maximum fraction of absolute variance values, minimum root mean square errors and minimum coefficient of variance values. The analysis of variance results confirmed that solar intensity and ambient temperature are the most influencing parameters affecting the energy performance of photovoltaic-thermal evaporators. (C) 2015 Elsevier Ltd. All rights reserved.

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**Abstract:** A salinity sensor employing photonic crystal fiber is designed for measuring the concentration of salt in sea water. The sea water sample is infiltrated into one of the air holes in cladding, which offers high confinement loss and act as an analyte core mode and background acts as silica mode. In order to satisfy the phase matching condition, the power transferred from silica core to the liquid filled analyte core, which is investigated using finite element method. An enhanced sensitivity of salinity in sea water reports as 5405 nm/RIU for x-polarization and 5675 nm/RIU for y-polarization with a detection limit of 0.0037 RIU has been reported. The proposed PCF also promises to yield the large birefringence of order 10<sup>(-3)</sup> along with the enhanced sensitivity. (C) 2017 Elsevier B.V. All rights reserved.  
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**Title:** Performance of self-compacting concrete containing different mineral admixtures

**Author(s):** Ramanathan, P (Ramanathan, P.); Baskar, I (Baskar, I.); Muthupriya, P (Muthupriya, P.); Venkatasubramani, R (Venkatasubramani, R.)

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**Abstract:** Self-Compacting Concrete is an innovative concrete that does not require vibration for placing and compaction. It is able to flow under its own weight, completely filling formwork and achieving full compaction, even in the presence of congested reinforcement. One of the disadvantages of self-compacting concrete is its cost, associated with the use of high volumes of Portland cement and use of chemical admixtures. One alternative to reduce the cost of self-compacting concrete is the use of mineral admixtures such as silica fume, ground granulated blast furnace slag and fly ash, which is finely, divided materials added to concrete during mixture procedure. When these mineral admixtures replace a part of the Portland cement, the cost of self-compacting concrete will be reduced especially if the mineral admixtures are waste or industrial by-product. Moreover, the use of mineral admixtures in the production of self-compacting concrete not only provides economical benefits but also reduces heat of hydration. The incorporation of mineral admixtures also eliminates the need for viscosity-enhancing chemical admixtures. The lower water content of the concrete leads to higher durability, in addition to better mechanical integrity of the structure. This paper presents an experimental investigation on strength aspects like compressive, flexural and split tensile strength of self compacting concrete containing different mineral admixtures and workability tests for different mineral admixtures (slump, L-box, U-box and T-50) are carried out. The methodology adopted is that mineral admixtures are replaced by 30%, 40% and 50% for Portland cement and performance is measured and compared. The influence of mineral admixtures on the workability, compressive strength, splitting tensile strength and flexural strength of self-compacting concrete was investigated. The mix proportion is obtained as per the guidelines given by European Federation of producers and contractors of special products for structure. The following inferences were made; optimum dosage of super plasticizer enhanced the flow property of the concrete. As a result, overall improvements in the flow and filling ability of the self-compacting concrete were observed. It is observed that when mineral admixtures used in self-compacting concrete, can reduce the amount of super-plasticizer necessary to achieve a given fluidity. It should be noted that the effect of mineral admixtures on admixture requirements is significantly dependent on their particle size distribution as well as particle shape and surface characteristics. From this view point, a cost effective self-compacting concrete design can be obtained by incorporating reasonable amounts of silica fume, fly ash, and ground granulated blast furnace slag.

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**Title:** An investigation of material removal rate and surface roughness of squeeze casted A413 alloy on WEDM by multi response optimization using RSM

**Author(s):** Soundararajan, R (Soundararajan, R.); Ramesh, A (Ramesh, A.); Mohanraj, N (Mohanraj, N.); Parthasarathi, N (Parthasarathi, N.)

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**Abstract:** The machinability study on newly fabricated A413 alloy produced by squeeze casting route under optimal condition through wire electrical discharge machining process are also investigated as final one of the present work. The experiments were systematically carried out by adapting central composite rotatable design approach of response surface methodology to investigate the effect of wire electrical discharge machining parameters such as pulse on time, pulse off time and peak current on material removal rate and surface roughness. Analysis of variance was also carried out to check the significance of the models. The mathematical models were developed to predict the results which are within the limits of agreeable average error for material removal rate and surface roughness through additivity test. Desirability function approach was used to find the optimal parametric combinations for multi-objective optimization and successful machining of the castings. It has been verified by confirmatory experiment to show the efficiency of the proposed method. On the whole, it is stated that the investigation on squeeze casting and wire electrical discharge machining process parameter of A413 alloy have proved the better casting properties and machining quality. Hence, it is recommended for all industrial applications especially automobile, aerospace. (C) 2016 Elsevier B.V. All rights reserved.

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**Publisher:** ELSEVIER SCIENCE SA**Publisher Address:** PO BOX 564, 1001 LAUSANNE, SWITZERLAND**Web of Science Categories:** Chemistry, Physical; Materials Science, Multidisciplinary; Metallurgy & Metallurgical Engineering**Research Areas:** Chemistry; Materials Science; Metallurgy & Metallurgical Engineering**IDS Number:** DU4ZT**ISSN:** 0925-8388**eISSN:** 1873-4669**29-char Source Abbrev.:** J ALLOY COMPD**ISO Source Abbrev.:** J. Alloy. Compd.**Source Item Page Count:** 13**Output Date:** 2020-01-07**Record 5 of 250****Title:** Solving Multi-objective Vehicle Routing Problem with Time Windows by FAGA**Author(s):** Kumar, VS (Kumar, V. Sivaram); Thansekhar, MR (Thansekhar, M. R.); Saravanan, R (Saravanan, R.); Amali, SMJ (Amali, S. Miruna Joe)**Edited by:** Xavior MA; Yarlagaadda PKDV**Source:** 12TH GLOBAL CONGRESS ON MANUFACTURING AND MANAGEMENT (GCMM - 2014) **Book Series:** Procedia Engineering **Volume:** 97 **Pages:** 2176-2185 **DOI:** 10.1016/j.proeng.2014.12.461 **Published:** 2014**Times Cited in Web of Science Core Collection:** 15**Total Times Cited:** 16**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 5**Cited References:** Banos R, 2013, COMPUT IND ENG, V65, P286, DOI 10.1016/j.cie.2013.01.007

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**Abstract:** The vehicle routing problem with time windows (VRPTW) is a complex transportation issue. In this paper, multi objective VRPTW is considered in which the total distance travelled, total number of vehicles used and route balance are minimized. Genetic algorithm with fitness aggregation approach and specialized operators like selection based on aggregate fitness value, best cost route crossover called Fitness Aggregated Genetic Algorithm (FAGA) is introduced for solving the multi objective problem. The algorithm was tested on large number of Solomon's benchmarks for bi-objective model that is minimization of total distance travelled and total number of vehicles used. The results produced by FAGA are highly competitive to best known results reported in the literature. After validation the third objective that is route balance is incorporated into bi-objective model and it is observed that FAGA produces better balanced routes without affecting the total distance travelled and total number of vehicles used. (C) 2014 The Authors. Published by Elsevier Ltd.

**Accession Number:** WOS:000369433200242**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 12th Global Congress on Manufacturing and Management (GCMM)**Conference Date:** DEC 08-10, 2014**Conference Location:** VIT Univ, Vellore, INDIA**Conference Sponsors:** VIT Univ, Sch Mech & Bldg Sci, Queensland Univ Technol**Conference Host:** VIT Univ**Author Keywords:** Vehicle Routing Problem with Time Windows; Vehicle Routing Problem with Route balance; Multi Objective Optimization; Genetic Algorithm; Fitness Evaluation for Multi Objectives**KeyWords Plus:** GENETIC ALGORITHMS**Addresses:** [Kumar, V. Sivaram; Thansekhar, M. R.] KLN Coll Engn, Dept Mech Engn, Pottapalayam 630611, Tamil Nadu, India.

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**Record 6 of 250****Title:** Kinetics, mechanism, isotherm and thermodynamic analysis of adsorption of cadmium ions by surface-modified *Strychnos potatorum* seeds**Author(s):** Kumar, PS (Kumar, Ponnusamy Senthil); Gayathri, R (Gayathri, Rangasamy); Senthamarai, C (Senthamarai, Chandrasekaran); Priyadharshini, M (Priyadharshini, Muthukumar); Fernando, PSA (Fernando, Panimayam Sebastina Anne); Srinath, R (Srinath, Ramakrishnan); Kumar, VV (Kumar, Vaidyanathan Vinoth)**Source:** KOREAN JOURNAL OF CHEMICAL ENGINEERING **Volume:** 29 **Issue:** 12 **Pages:** 1752-1760 **DOI:** 10.1007/s11814-012-0077-1 **Published:** DEC 2012**Times Cited in Web of Science Core Collection:** 15**Total Times Cited:** 15**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 25**Cited References:** Al-Anber ZA, 2008, J HAZARD MATER, V151, P194, DOI 10.1016/j.jhazmat.2007.05.069

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**Cited Reference Count:** 35

**Abstract:** The surface-modified *Strychnos potatorum* seeds (SMSP) were used as an effective low-cost adsorbent for the removal of cadmium ions from aqueous solution. SMSP was characterized by Fourier transform infrared spectroscopy and scanning electron microscopic analyses. The effect of operating variables such as solution pH, adsorbent dose, contact time, initial cadmium ions concentration and temperature on the removal of cadmium ions were studied in a batch mode adsorption operation. The optimum conditions for the adsorption of cadmium ions onto the SMSP were found to be: pH of 5.0, SMSP dose of 2 g/L, contact time of 30min, temperature of 30 A degrees C for an initial cadmium ions concentration of 100 mg/L. Kinetic data were analyzed using the pseudo-first order and pseudo-second order kinetic equations, intraparticle diffusion model, Boyd kinetic model and shrinking core model. The characteristic parameters for each model have been estimated. Adsorption of cadmium ions onto the SMSP follows the pseudo-second order kinetic model. The rate-limiting steps in the adsorption process were found to be external and internal diffusion. Equilibrium data were well described by the Langmuir isotherm model than the Freundlich isotherm model, which yields a maximum monolayer adsorption capacity of 200 mg/g. Thermodynamic parameters such as standard free energy change, enthalpy change and entropy change were also estimated. The results show that the removal of cadmium ions by the SMSP was found to be spontaneous and exothermic.

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**Record 7 of 250**

**Title:** D-glucose sensor using photonic crystal fiber

**Author(s):** Thenmozhi, H (Thenmozhi, Harikesavan); Rajan, MM (Rajan, MuruganSenthil Mani); Devika, V (Devika, Veluchamy); Vigneswaran, D (Vigneswaran, Dhasarathan); Ayyanar, N (Ayyanar, Natesan)

**Source:** OPTIK **Volume:** 145 **Pages:** 489-494 **DOI:** 10.1016/j.ijleo.2017.08.039 **Published:** 2017

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**Abstract:** We propose triangular lattice structured photonic crystal fiber (PCF) sensor for sensing applications with attractive features for the detection of glucose concentration. The proposed sensor is numerically investigated using Finite Element Method (FEM). We have investigated the sensing property of the proposed photonic crystal fiber structure by varying the concentration of the D-glucose from 10%-60% which gives the average sensitivity of 19135.70 nm/RIU. We expect that this sensor can provide an effective platform for glucose sensing and potentially leading to a further development of optical sensing applications. (C) 2017 Elsevier GmbH. All rights reserved.

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**Title:** Pattern Matching based Classification using Ant Colony Optimization based Feature Selection

**Author(s):** Sreeja, NK (Sreeja, N. K.); Sankar, A (Sankar, A.)

**Source:** APPLIED SOFT COMPUTING **Volume:** 31 **Pages:** 91-102 **DOI:** 10.1016/j.asoc.2015.02.036 **Published:** JUN 2015

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**Cited Reference Count:** 44

**Abstract:** Classification is a method of accurately predicting the target class for an unlabelled sample by learning from instances described by a set of attributes and a class label. Instance based classifiers are attractive due to their simplicity and performance. However, many of these are susceptible to noise and become unsuitable for real world problems. This paper proposes a novel instance based classification algorithm called Pattern Matching based Classification (PMC). The underlying principle of PMC is that it classifies unlabelled samples by matching for patterns in the training dataset. The advantage of PMC in comparison with other instance based methods is its simple classification procedure together with high performance. To improve the classification accuracy of PMC, an Ant Colony Optimization based Feature Selection algorithm based on the idea of PMC has been proposed. The classifier is evaluated on 35 datasets. Experimental results demonstrate that PMC is competent with many instance based classifiers. The results are also validated using nonparametric statistical tests. Also, the evaluation time of PMC is less when compared to the gravitation based methods used for classification. (C) 2015 Elsevier B.V. All rights reserved.

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**Title:** Tri-core photonic crystal fiber based refractive index dual sensor for salinity and temperature detection

**Author(s):** Amiri, IS (Amiri, Iraj S.); Paul, BK (Paul, Bikash Kumar); Ahmed, K (Ahmed, Kawsar); Aly, AH (Aly, Arafa H.); Zakaria, R (Zakaria, Rozalina); Yupapin, P (Yupapin, Preecha); Vigneswaran, D (Vigneswaran, Dhasarathan)

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**Cited Reference Count:** 21

**Abstract:** This article discusses the tri-core photonic crystal microstructure fiber for the process of simultaneous sensing for salinity and temperature of water substances. This kind of microstructure is preferred in many sensing application to scale the detection process in micrometer range. In this novel sensor, the sensitivity is calculated through coupling mechanism by tracking wavelength shift of various concentrations of salinity and temperature using finite element method. The sensible samples are in liquid and are infiltrated into the framed hollow cavity. Based on the coupling principle between silica substrate and the analyte material, the sense of the salt as well as temperature is obtained. Finally, it is noted that sensitivity of the salt level in water as 5404.9 nm/RIU for x polarization direction and 5674 nm/RIU for y polarization direction have been calculated with the temperature sensitivity of 4 nm/degrees C in the same water substances.

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**Author Keywords:** finite element method; photonic crystal fiber; sensitivity and coupling mechanism

**KeyWords Plus:** SEAWATER SALINITY

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**Record 10 of 250**  
**Title:** Characterization and optimization of Abrasive Water Jet Machining parameters of aluminium/tungsten carbide composites  
**Author(s):** Kumar, KR (Kumar, K. Ravi); Sreebalaji, VS (Sreebalaji, V. S.); Pridhar, T (Pridhar, T.)  
**Source:** MEASUREMENT **Volume:** 117 **Pages:** 57-66 **DOI:** 10.1016/j.measurement.2017.11.059 **Published:** MAR 2018  
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**Abstract:** The present study aims to optimize the Abrasive Water Jet Machining parameters while machining aluminium/tungsten carbide composites. Investigations were carried on 2, 4, 6, 8 and 10 wt% tungsten carbide reinforced composite specimens fabricated by stir casting technique. Response surface methodology was employed to explore the influence of abrasive jet parameters and their relations on the responses. Microstructure of the machined surfaces was examined by scanning electron microscope. Material removal rate is greatly influenced by transverse speed followed by % reinforcement and standoff distance respectively, while surface roughness is highly influenced by % tungsten carbide followed by transverse speed and standoff distance. The optimum parameter set in maximizing the material removal rate and minimizing the surface roughness is standoff distance -4.22 mm, transverse speed -223.28 mm/min, and percentage WC - 2.10%. The experimental results and multi response optimization obtained provide a technical database for industrial applications.  
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**Author Keywords:** Composites; Aluminium; Tungsten carbide; Desirability; AWJM; Optimization  
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**29-char Source Abbrev.:** MEASUREMENT  
**ISO Source Abbrev.:** Measurement  
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**Record 11 of 250**  
**Title:** Study on Durability Characteristics of Self-Compacting Concrete with Fly Ash  
**Author(s):** Dhiyaneshwaran, S (Dhiyaneshwaran, S.); Ramanathan, P (Ramanathan, P.); Baskar, I (Baskar, I); Venkatasubramani, R (Venkatasubramani, R.)  
**Source:** JORDAN JOURNAL OF CIVIL ENGINEERING **Volume:** 7 **Issue:** 3 **Pages:** 342-353 **Published:** 2013  
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**Cited Reference Count:** 16  
**Abstract:** This paper investigates the study of workability and durability characteristics of Self-Compacting Concrete (SCC) with Viscosity Modifying Admixture (VMA), and containing Class F fly ash. The mix design for SCC was arrived as per the Guidelines of European Federation of National Associations Representing for Concrete (EFNARC). In this investigation, SCC was made by usual ingredients such as cement, fine aggregate, coarse aggregate, water and mineral admixture fly ash at various replacement levels (10%, 20%, 30%, 40% and 50%). The super plasticizer used was Glenium B233 and the viscosity modifying agent used was Glenium Stream 2. The experiments are carried out by adopting a water-powder ratio of 0.45. Workability of the fresh concrete is determined by using tests such as: slump flow, T50, V-funnel, L-Box and U-box tests. The durability of concrete is tested by acid resistance, sulphate attack and saturated water absorption at the age of 28, 56 and 90 days.  
**Accession Number:** WOS:000434734600008  
**Language:** English  
**Document Type:** Article  
**Author Keywords:** Self-compacting concrete; Fly ash; Saturated water absorption; Acid resistance; Sulphate attack; Mineral admixture  
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**ISO Source Abbrev.:** Jordan J. Civ. Eng.

**Source Item Page Count:** 12**Output Date:** 2020-01-07

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**Record 12 of 250****Title:** Hygrothermal durability and failure modes of FRP for marine applications**Author(s):** Santhosh, K (Santhosh, K.); Muniraju, M (Muniraju, M.); Shivakumar, ND (Shivakumar, N. D.); Raguraman, M (Raguraman, M.)**Source:** JOURNAL OF COMPOSITE MATERIALS **Volume:** 46 **Issue:** 15 **Pages:** 1889-1896 **DOI:** 10.1177/0021998311427776 **Published:** JUL 2012**Times Cited in Web of Science Core Collection:** 12**Total Times Cited:** 13**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 35**Cited References:** ALLRED RE, 1981, J COMPOS MATER, V15, P100, DOI 10.1177/002199838101500201

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**Cited Reference Count:** 19

**Abstract:** This article deals with the durability of 2D woven mat carbon/polyester, glass/isopolyester, and gel-coated glass/isopolyester reinforced composites under hygrothermic conditions with regard to marine applications. The test coupons were exposed to 60 degrees C and 70 degrees C at 95% RH for a maximum duration of 100 h. The samples were periodically withdrawn and weighed for moisture absorption and tested for the degradation in the mechanical properties such as ultimate tensile strength, flexural strength, interlaminar shear strength, and Young's modulus and flexural modulus. Carbon/isopolyester-based specimens showed greater stability with respect to degradation in the mechanical properties than the glass/isopolyester/gel coat- and glass/isopolyester-based specimens. Glass/isopolyester exhibited the maximum moisture absorption, whereas the minimum moisture absorption was found in glass/isopolyester/gel coat. Diffusion coefficient (D) was found to be the highest for glass/isopolyester and the lowest for glass/isopolyester/gel coat, based on the Fick's law of diffusion. Diffusion coefficient increases with the increase in temperature for all the specimens. Microstructure study of fractured specimens was carried out using scanning electron microscope to compare matrix/fiber debonding and matrix-degradation of fiber-reinforced polymer composites.

**Accession Number:** WOS:000306508200011**Language:** English**Document Type:** Article**Author Keywords:** Hygrothermal aging; polymer matrix composites; moisture absorption; mechanical properties; isopolyester; diffusion coefficient; SEM**KeyWords Plus:** GLASS FIBRE/EPOXY COMPOSITES; WATER-ABSORPTION; TEMPERATURE; INTERPHASE; SORPTION; POLYMER; REGION; VOIDS**Addresses:** [Raguraman, M.] Univ Leeds, Sch Mech Engn, Leeds LS2 9JT, W Yorkshire, England.

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**Reprint Address:** Raguraman, M (reprint author), Univ Leeds, Sch Mech Engn, Leeds LS2 9JT, W Yorkshire, England.**E-mail Addresses:** r.munusamy@leeds.ac.uk**Publisher:** SAGE PUBLICATIONS LTD**Publisher Address:** 1 OLIVERS YARD, 55 CITY ROAD, LONDON EC1Y 1SP, ENGLAND**Web of Science Categories:** Materials Science, Composites**Research Areas:** Materials Science**IDS Number:** 975JS**ISSN:** 0021-9983**29-char Source Abbrev.:** J COMPOS MATER**ISO Source Abbrev.:** J. Compos Mater.**Source Item Page Count:** 8**Output Date:** 2020-01-07

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**Record 13 of 250****Title:** Investigation of Mechanical Properties and Dry Sliding Wear Behaviour of Squeeze Cast LM6 Aluminium Alloy Reinforced with Copper Coated Short Steel Fibers**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Nithyanandam, N (Nithyanandam, Nisaanthakumar); Rajendran, K (Rajendran, Karthikeyan); Radhakrishnan, KK (Radhakrishnan, Kesavaprasad Kothandapani)**Source:** TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS **Volume:** 71 **Issue:** 4 **Pages:** 813-822 **DOI:** 10.1007/s12666-017-1258-8 **Published:** APR 2018**Times Cited in Web of Science Core Collection:** 11**Total Times Cited:** 11**Usage Count (Last 180 days):** 3**Usage Count (Since 2013):** 5

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**Cited Reference Count:** 36

**Abstract:** LM6 aluminium alloy with 2.5-10 wt% of copper coated short steel fiber reinforced composites were prepared using squeeze casting process. Microstructure and mechanical properties viz., hardness, tensile strength and ductility were investigated. Dry sliding wear behaviour was tested by considering sliding distance and load. Fracture surface and worn surface were examined using field emission scanning electron microscope (FESEM). Hardness of composites increased with increasing wt% of fiber. Tensile strength of composites increased up to 19% for 5 wt% fiber composites. Further addition of fibers decreased the tensile strength of composites. Ductility of the composites decreased with the addition of fibers into the matrix. Wt% of fibers significantly decreased the weight loss, coefficient of friction and wear rate. Also the cumulative weight loss decreased up to 57% for 10 wt% of composites compared to LM6 aluminium alloy. Fracture surface of composite tensile specimen showed dimple formation and fiber pullout. Worn surface of matrix showed long continuous grooves due to local delamination on the surface. However, worn surface of composites showed fine and smooth grooves due to ploughing rather than local delamination. Copper coated steel fiber reinforcement in LM6 aluminium alloy exhibited better mechanical properties and wear resistance compared to matrix.

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**Language:** English

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**Author Keywords:** LM6 aluminium alloy; Steel fiber; Squeeze casting; Microstructure; Tensile strength; Wear resistance

**KeyWords Plus:** METAL-MATRIX COMPOSITES; MICROSTRUCTURE; FABRICATION; OPTIMIZATION

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**Record 14 of 250****Title:** TA-FSFT Thermal Aware Fail Safe Fault Tolerant algorithm for Wireless Body Sensor Network**Author(s):** Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Chitra, A (Chitra, A.)**Source:** WIRELESS PERSONAL COMMUNICATIONS **Volume:** 90 **Issue:** 4 **Pages:** 1935-1950 **DOI:** 10.1007/s11277-016-3431-5 **Published:** OCT 2016**Times Cited in Web of Science Core Collection:** 11**Total Times Cited:** 11**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 9**Cited References:** Ababneh N., 2012, 2012 IEEE Workshops of International Conference on Advanced Information Networking and Applications (WAINA), P466, DOI 10.1109/WAINA.2012.34

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**Abstract:** Availability of data from network has become mandatory for monitoring patient during critical conditions. Fault tolerant strategy requires availability of nodes during critical conditions and it should be thermal aware in nature. Thermal Aware-Fail Safe Fault Tolerant (TA-FSFT) algorithm serves as a solution to this problem forming fault tolerant, energy efficient network for Wireless Body Sensor Network. The lifetime enhancement by fault tolerant method is proposed by classifying the packets based on the subject's status, scheduling sensors and routing based on the residual energy of the node. The data from the sensor is used to classify the patient state. The Markov model helps in predicting the state of the subject and scheduling sensors based on its state. Minimizing the energy consumption of the node minimizes heat dissipation caused by the sensors, thereby making TA-FSFT algorithm thermal aware in nature. Simulation results of TA-FSFT algorithm outperform with 1.519 times increase in lifetime and 1.453 times increase in throughput. TA-FSFT algorithm decreases thermal dissipation avoiding tissue damage by implanted node and provides a thermal aware fault tolerant mechanism to the system. Unnecessary energy dissipation and heat dissipation of nodes is avoided thereby it is made fail safe. Under some intermittent fault conditions the node shares data to the sink via the healthy node ensuring the data connectivity during above normal and abnormal conditions. The network is ensured for close monitoring under extreme situation with fail safe and fault tolerant manner.

**Accession Number:** WOS:000385368400017**Language:** English**Document Type:** Article**Author Keywords:** Wireless Body Sensor Network (WBSN); Fault tolerant; Energy efficient; Thermal aware**Addresses:** [Kanagachidambaresan, G. R.] Sri Krishna Coll Technol, Dept EEE, Coimbatore 641042, Tamil Nadu, India.

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**Record 15 of 250**

**Title:** A study of microstructure and wear behaviour of TiB<sub>2</sub>/Al metal matrix composites

**Author(s):** Sreenivasan, A (Sreenivasan, A.); Vizhian, SP (Vizhian, S. Paul); Shivakumar, ND (Shivakumar, N. D.); Muniraju, M (Muniraju, M.); Raguraman, M (Raguraman, M.)

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**Times Cited in Web of Science Core Collection:** 11

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**Usage Count (Last 180 days):** 0

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**Cited Reference Count:** 8

**Abstract:** The present paper deals with the study of microstructure and wear characteristics of TiB<sub>2</sub> reinforced aluminium metal matrix composites (MMCs). Matrix alloys with 5, 10 and 15% of TiB<sub>2</sub> were made using stir casting technique. Effect of sliding velocity on the wear behaviour and tribo-chemistry of the worn surfaces of both matrix and composites sliding against a EN24 steel disc has been investigated under dry conditions. A pin-on-disc wear testing machine was used to find the wear rate, in which EN24 steel disc was used as the counter face, loads of 10-60N in steps of 10N and speeds of 100, 200, 300, 400 and 500 rpm were employed. The results showed that the wear rate was increased with an increase in load and sliding speed for both the materials. However, a lower wear rate was obtained for MMCs when compared to the matrix alloys. The wear transition from slight to severe was presented at the critical applied loads. The transition loads for the MMCs were much higher than that of the matrix alloy. The transition loads were increased with increase in TiB<sub>2</sub> and the same was decreased with the increase of sliding speeds. The SEM and EDS analyses were undertaken to demonstrate the effect of TiB<sub>2</sub> particles on the wear mechanism for each conditions.

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**Document Type:** Article

**Author Keywords:** MMC composites; wear; microstructure

**KeyWords Plus:** SLIDING WEAR

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**Record 16 of 250**

**Title:** Design of D-shaped elliptical core photonic crystal fiber for blood plasma cell sensing application

**Author(s):** Ahmed, K (Ahmed, Kawsar); Paul, BK (Paul, Bikash Kumar); Vasudevan, B (Vasudevan, B.); Rashed, ANZ (Rashed, Ahmed Nabih Zaki); Maheswar, R (Maheswar, R.); Amiri, IS (Amiri, I. S.); Yupapin, P (Yupapin, P.)

**Source:** RESULTS IN PHYSICS **Volume:** 12 **Pages:** 2021-2025 **DOI:** 10.1016/j.rinp.2019.02.026 **Published:** MAR 2019

**Times Cited in Web of Science Core Collection:** 10

**Total Times Cited:** 10

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Cited Reference Count: 16

**Abstract:** In this research, the proposed design presents the compact sensing performances while infiltrating the blood fluid in the central hole of the D-shaped elliptical dual-core photonic crystal fiber (PCF) configuration. The properties such as index difference, coupling length, and transmission spectrum pertains the sensing property of the blood plasma cell. The proposed sensor can detect plasma by finite element method (FEM) which can be utilized to detect the variation of plasmon of light using plasma materials.

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**Document Type:** Article

**Author Keywords:** D-shaped PCF; Blood fluid; Sensor

**KeyWords Plus:** BIREFRINGENCE

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**Title:** Dry sliding wear characterization of squeeze cast LM13/FeCu composite using response surface methodology

**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Thangaraj, AN (Thangaraj, Arunprasad Narippalayam); Sekar, H (Sekar, Harishankar)

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**Cited Reference Count:** 26

**Abstract:** Dry sliding wear is one of the predominant factors to be considered while selecting material for automotive and aerospace applications. Researchers have been exploring novel aluminium matrix composites (AMC), which offer minimum wear rate for various tribological applications. In this present work, an attempt has been made to reinforce LM13 aluminium alloy with copper coated steel fibers (10wt.%) using squeeze casting process and to perform dry sliding wear test using pin-on-disc tribometer. Microstructure of cast samples was examined using image analysis system to investigate the dispersion of reinforcement in matrix. Dry sliding wear test was performed by considering factors such as load (10-50 N), sliding velocity (1-5 m.s(-1)) and sliding distance (500-2,500 m). Wear test was performed according to the experimental design at room temperature. Three factors and five levels central composite design were used to design the experiments using response surface methodology. Based on the results of the experiments, a regression model was developed to predict the wear rate of composites and checked for its adequacy using significance tests, analyses of variance and confirmation tests. Worn surface of samples was investigated using field emission scanning electron microscope and reported with its mechanisms. Microstructure of cast samples revealed uniform dispersion of reinforcement throughout the matrix. Response surface plots revealed that wear rate of composites increases with increasing load up to 50 N with the velocity 1-5 m.s(-1) and a sliding distance up to 2,500 m. However wear rate decreasesd with increasing velocity at lower loads (up to 20 N) and increased after reaching transition velocity of 2 m.s(-1). Dry sliding wear process parameters were optimised for obtaining minimum wear rate and they were found to be a load of 18.46 N, velocity of 4.11 m.s(-1), sliding distance of 923 m. Worn surface of samples revealed a mild wear at lower loads (up to 30 N), and severe wear was observed at high loads (40-50 N) due to higher level of deformation on the surface.

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**Author Keywords:** aluminium alloy; casting; response surface methodology; microstructure; wear

**KeyWords Plus:** ALUMINUM-ALLOYS; BEHAVIOR; OPTIMIZATION; PARAMETERS; STRENGTH; TENSILE

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**Record 18 of 250**

**Title:** Silicon nano crystal filled photonic crystal fiber for high nonlinearity

**Author(s):** Paul, BK (Paul, Bikash Kumar); Ahmed, F (Ahmed, Fahad); Moctader, MG (Moctader, Md Golam); Ahmed, K (Ahmed, Kawsar); Vigneswaran, D (Vigneswaran, Dhasarathan)

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Cited Reference Count: 23

**Abstract:** A novel design of circular hybrid photonic crystal fiber (CH-PCF) with high nonlinearity and high numerical aperture (NA) is introduced in this paper. The numerical simulation results are obtained by using finite element method (FEM) and selecting finer mesh. Some fundamental optical parameters such as nonlinearity, effective area, scattering loss, power fraction and NA for the two orthogonal polarized modes are rigorously evaluated. Significant improvement of PCFs in terms of the non-linearity and NA are demonstrated by carefully investigating of the geometrical parameters of structure. The reported design undoubtedly confirms high nonlinearity of 128873.1183 W(-1 )km(-1) for x-polarization and 152134.1052 W(-1 )km(-1) for y-polarization respectively at the optical wavelength of 0.5 mu m Simultaneously, outmost NA of 0.57 and 0.59 are found at optical wavelength lambda = 2.5 mu m. So, the obtained outcomes make the proposed PCF a prominent candidate in super continuum generation as well as all optical signal processing applications.

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**Language:** English

**Document Type:** Article

**Author Keywords:** Photonic crystal fiber; Nonlinearity; Numerical aperture; Confinement loss; Silicon nano crystal

**KeyWords Plus:** NANOSCALE GAP STRIPS; DESIGN; CORE; BIREFRINGENCE; CONFINEMENT; DISPERSION

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Record 19 of 250

**Title:** Ant colony optimization based binary search for efficient point pattern matching in images

**Author(s):** Sreeja, NK (Sreeja, N. K.); Sankar, A (Sankar, A.)

**Source:** EUROPEAN JOURNAL OF OPERATIONAL RESEARCH **Volume:** 246 **Issue:** 1 **Pages:** 154-169 **DOI:** 10.1016/j.ejor.2015.04.012 **Published:** OCT 1 2015

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**Cited Reference Count:** 21

**Abstract:** Point Pattern Matching (PPM) is a task to pair up the points in two images of a same scene. There are many existing approaches in literature for point pattern matching. However, the drawback lies in the high complexity of the algorithms. To overcome this drawback, an Ant Colony Optimization based Binary Search Point Pattern Matching (ACOBSPPM) algorithm is proposed. According to this approach, the edges of the image are stored in the form of point patterns. To match an incoming image with the stored images, the ant agent chooses a point value in the incoming image point pattern and employs a binary search method to find a match with the point values in the stored image point pattern chosen for comparison. Once a match occurs, the ant agent finds a match for the next point value in the incoming image point pattern by searching between the matching position and maximum number of point values in the stored image point pattern. The stored image point pattern having the maximum number of matches is the image matching with the incoming image. Experimental results are shown to prove that ACOBSPPM algorithm is efficient when compared to the existing point pattern matching approaches in terms of time complexity and precision accuracy. (C) 2015 Elsevier B.V. and Association of European Operational Research Societies (EURO) within the International Federation of Operational Research Societies (IFORS). All rights reserved.

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**Document Type:** Article

**Author Keywords:** Decision support systems; Image recognition; Point pattern matching; Ant Colony Optimization; Binary search

**KeyWords Plus:** ALGORITHM; RELAXATION

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**Record 20 of 250**

**Title:** Efficiently Mining of Effective Web Traversal Patterns With Average Utility

**Author(s):** Thilagu, M (Thilagu, M.); Nadarajan, R (Nadarajan, R.)

**Edited by:** Jena SK; Majhi B

**Source:** 2ND INTERNATIONAL CONFERENCE ON COMMUNICATION, COMPUTING & SECURITY [ICCCS-2012] **Book Series:** Procedia Technology **Volume:**

**1 Pages:** 444-451 **DOI:** 10.1016/j.protcy.2012.10.053 **Published:** 2012

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**Cited Reference Count:** 15

**Abstract:** Mining of frequent web traversal patterns finds pages that co-occur in an order in a transaction. Patterns only with frequency would not provide sufficient information about the preferences or interestingness of users. By adopting utility-based mining model in web traversal pattern mining, by considering time spent on the web pages as utility or user preferences. However, an issue identified in the existing utility-based web traversal pattern mining algorithms is that transaction weighted utility of a pattern is computed considering utilities of all transactions in which it exists and thus includes utilities of all patterns occurring before the pattern, irrespective of its prefixes in those transactions. This leads to generation of more candidate patterns unnecessarily and affects the efficiency of the algorithm. Another issue is that, if the length of a pattern increases, automatically its utility will also increase. With the effect of pattern length, really good utility patterns cannot be identified among all high utility patterns. Also, longer patterns with less page utility in a transaction may result in higher values and it will be treated same as shorter patterns with more page utility. By considering high average utility patterns rather patterns with only actual utility, we could distinguish high utility patterns with respect to their lengths. Moreover, a high average utility pattern would be more effective than a high utility pattern and we could reveal better results by finding effective traversal patterns in a database. With this motivation, an efficient algorithm addressing the above said issues has been proposed to discover effective web traversal patterns in a transaction database. Experiments results on

real datasets show that the proposed algorithm is more efficient than an existing approach. (C) 2012 The Authors. Published by Elsevier Ltd. Selection and/or peer-review under responsibility of the Department of Computer Science & Engineering, National Institute of Technology Rourkela

**Accession Number:** WOS:000314408300053

**Language:** English

**Document Type:** Proceedings Paper

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**Conference Location:** Rourkela, INDIA

**Conference Sponsors:** Natl Inst Technol, Dept Comp Sci & Engr

**Author Keywords:** Web Usage Mining; Web Traversal Sequence; Utility-Based Mining; High Utility Pattern; Effective Web Traversal Pattern; Projected Transaction Weighted Utility

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**Record 21 of 250**

**Title:** Enhanced sensitivity of cancer cell using one dimensional nano composite material coated photonic crystal

**Author(s):** Ramanujam, NR (Ramanujam, N. R.); Amiri, IS (Amiri, I. S.); Taya, SA (Taya, Sofyan A.); Olyaei, S (Olyaei, Saeed); Udaiyakumar, R (Udaiyakumar, R.); Pandian, AP (Pandian, A. Pasumpon); Wilson, KSJ (Wilson, K. S. Joseph); Mahalakshmi, P (Mahalakshmi, P.); Yupapin, PP (Yupapin, P. P.)

**Source:** MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS **Volume:** 25 **Issue:** 1 **Pages:** 189-196 **DOI:** 10.1007/s00542-018-3947-6 **Published:** JAN 2019

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**Cited Reference Count:** 34

**Abstract:** We theoretically analyze the detection of a cancer cell in the one-dimensional photonic crystal by infiltrating different sample cells in the cavity layer. The defect modes appear in their transmission spectra only if the nanocomposite layers are included on either side of the cavity layer. This analysis is carried out by a dielectric constant and the transmittance peak of the cancer cell is compared with the normal cell. The transmittance peak shifts are analyzed with various filling factors for optimization purposes. Through the shifting spectrum, the sensitivity of cancer cell from the normal cell is obtained from a minimum of 42nm/RIU to a maximum of 43nm/RIU.

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**Title:** Quasi-Photonic Crystal Fiber-Based Spectroscopic Chemical Sensor in the Terahertz Spectrum: Design and Analysis

**Author(s):** Paul, BK (Paul, Bikash Kumar); Ahmed, K (Ahmed, Kawsar); Vigneswaran, D (Vigneswaran, Dhasarathan); Ahmed, F (Ahmed, Fahad); Roy, S (Roy, Subrata); Abbott, D (Abbott, Derek)

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Cited Reference Count: 45

**Abstract:** In this paper, a novel microstructure quasi-photonic crystal fiber design is proposed. Aimed at a high relative sensitivity, it is targeted for chemical sensing applications in the terahertz. regime. A rigorous full-vector finite element method-based numerical investigation has been applied by employing an anisotropic perfectly matched layer for optimizing key parameters. Improved relative sensitivity responses of 78.8%, 77.8%, and 69.7% are achieved for targeted analytes ethanol, benzene, and water, respectively, at the operating frequency of f = 1.3 THz. Moreover, confinement loss, effective area, power fraction, and numerical aperture are analyzed from 0.8 to 2.0 THz.

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**Language:** English

**Document Type:** Article

**Author Keywords:** Liquid sensor; quasi photonic crystal fiber; terahertz

**KeyWords Plus:** HIGH-BIREFRINGENCE; OPTICAL-FIBER; FIELD; OPTIMIZATION; ENHANCEMENT; SENSITIVITY; DNA

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**Title:** Modeling and Analysis of Mechanical Properties of Aluminium Alloy (A413) Processed through Squeeze Casting Route Using Artificial Neural Network Model and Statistical Technique

**Author(s):** Soundararajan, R (Soundararajan, R.); Ramesh, A (Ramesh, A.); Sivasankaran, S (Sivasankaran, S.); Sathishkumar, A (Sathishkumar, A.)

**Source:** ADVANCES IN MATERIALS SCIENCE AND ENGINEERING **Article Number:** 714762 **DOI:** 10.1155/2015/714762 **Published:** 2015

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**Abstract:** Artificial Neural Network (ANN) approach was used for predicting and analyzing the mechanical properties of A413 aluminum alloy produced by squeeze casting route. The experiments are carried out with different controlled input variables such as squeeze pressure, die preheating temperature, and melt temperature as per Full Factorial Design (FFD). The accounted absolute process variables produce a casting with pore-free and ideal fine grain dendritic structure resulting in good mechanical properties such as hardness, ultimate tensile strength, and yield strength. As a primary objective, a feed forward back propagation ANN model has been developed with different architectures for ensuring the definiteness of the values. The developed model along with its predicted data was in good agreement with the experimental data, inferring the valuable performance of the optimal model. From the work it was ascertained that, for castings produced by squeeze casting route, the ANN is an alternative method for predicting the mechanical properties and appropriate results can be estimated rather than measured, thereby reducing the testing time and cost. As a secondary objective, quantitative and statistical analysis was performed in order to evaluate the effect of process parameters on the mechanical properties of the castings.

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**Record 24 of 250****Title:** A hierarchical heterogeneous ant colony optimization based approach for efficient action rule mining**Author(s):** Sreeja, NK (Sreeja, N. K.); Sankar, A (Sankar, A.)**Source:** SWARM AND EVOLUTIONARY COMPUTATION **Volume:** 29 **Pages:** 1-12 **DOI:** 10.1016/j.swevo.2016.02.004 **Published:** AUG 2016**Times Cited in Web of Science Core Collection:** 7**Total Times Cited:** 7**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 12**Cited References:** Bing Liu, 1998, Proceedings Fourth International Conference on Knowledge Discovery and Data Mining, P80

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**Cited Reference Count:** 21

**Abstract:** Most data mining algorithms aim at discovering customer models and classification of customer profiles. Application of these data mining techniques to industrial problems such as customer relationship management helps in classification of customers with respect to their status. The mined information does not suggest any action that would result in reclassification of customer profile. Such actions would be useful to maximize the objective function, for instance, the net profit or minimizing the cost. These actions provide hints to a business user regarding the attributes that have to be changed to reclassify the customers from an undesirable class (e.g. disloyal) to the desired class (e.g. loyal). This paper proposes a novel algorithm called Hierarchical Heterogeneous Ant Colony Optimization based Action Rule Mining (HHACOARM) algorithm to generate action rules. The algorithm has been developed considering the resource constraints. The algorithm has ant agents at different levels in the hierarchy to identify the flexible attributes whose values need to be changed to mine action rules. The advantage of HHACOARM algorithm is that it generates optimal number of minimal cost action rules. HHACOARM algorithm does not generate invalid rules. Also, the computational complexity of HHACOARM algorithm is less compared to the existing action rule mining methods. (C) 2016 Elsevier B.V. All rights reserved.

**Accession Number:** WOS:000381170200001**Language:** English**Document Type:** Article**Author Keywords:** Action rule mining; Hierarchical heterogeneous ant colony optimization; Reclassification**Addresses:** [Sreeja, N. K.] Sri Krishna Coll Technol, Dept Comp Applicat, Coimbatore 641042, Tamil Nadu, India.

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**Cited Reference Count:** 29

**Abstract:** Coal ash obtained from the Thermal Power plants consists of a major portion of Flyash and less amount of Bottom ash. As a major portion of the coal ash, fly ash has been recognized widely as a source material for geopolymers while the utilization of bottom ash has received very less attention owing to its coarser size. Hence to promote greater utilisation of bottom ash in construction sector, this work proposes the use of ground bottom ash in geopolymer mortar. The effect of molar ratio of SiO<sub>2</sub>/Na<sub>2</sub>O, Na<sub>2</sub>SiO<sub>3</sub>/NaOH ratio and curing mode were studied on compressive strength of coal ash geopolymer mortar. Molarity of sodium silicate solution was kept as 8M. Ambient curing and steam curing at 60 degrees C was attempted. Test results indicate that Na<sub>2</sub>SiO<sub>3</sub>/NaOH of ratio 2 with SiO<sub>2</sub>/Na<sub>2</sub>O molar ratio 1 mortar achieved higher compressive strength under both ambient curing and steam curing.

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**Author Keywords:** ground bottom ash; curing; molarity; molar ratio; compressive strength

**KeyWords Plus:** FLUIDIZED-BED COMBUSTION; BOTTOM ASH; FLY-ASH

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**Title:** Effects of TiO<sub>2</sub> on the performance of silver coated on side-polished optical fiber for alcohol sensing applications

**Author(s):** Kanmani, R (Kanmani, R.); Zainuddin, NAM (Zainuddin, N. A. M.); Rusdi, MFM (Rusdi, M. F. M.); Harun, SW (Harun, S. W.); Ahmed, K (Ahmed, K.); Amiri, IS (Amiri, I. S.); Zakaria, R (Zakaria, R.)

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Cited Reference Count: 21

**Abstract:** This work reports the experimental and numerical investigations on the effect of titanium oxide (TiO2) integrated on the optical fiber silver (Ag) surface plasmon resonance (SPR) sensors. In this paper, the numerical simulation is also analyzed using the finite element method (FEM) which shows good agreement. Results are compared with the experimental findings, focusing on the SPR phenomena for refractive index sensing using side-polished optical fiber, where the characteristics of the Ag layer with the integration of TiO2 are optimized. The essential parameters include the thickness of Ag namely 20 nm, 30 nm and 40 nm for optimization studies of SPR properties. TiO2 was then coated on the Ag thin layer to sense isopropanol at different concentration. It is shown that the combination of a 30 nm thickness of Ag layer with a dielectric TiO2 improves sensor performance in terms of sensitivity reading of 268 nm/RIU with a detection limit of 0.012. The main interest is to develop the device with cost effective, ease fabrication and less cumbersome of sensors using TiO2 which one of an alternative material to defeat the oxidation process and avoid charge recombination. If the sensitivity increases at a higher wavelength, it indicates that the TiO2 holds great potential in photonic applications.

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KeyWords Plus: PHOTONIC CRYSTAL FIBER; SENSITIVITY; SENSOR

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Author(s): Ahmed, K (Ahmed, Kawsar); Ahmed, F (Ahmed, Fahad); Roy, S (Roy, Subrata); Paul, BK (Paul, Bikash Kumar); Aktar, MN (Aktar, Mst Nargis); Vigneswaran, D (Vigneswaran, Dhasarathan); Islam, MS (Islam, Md Saiful)

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**Abstract:** In this paper, a novel partial type-b crystalline core with more compact cladding in hexagonal packing photonic crystal fiber (CC-PCF)-based optical sensor has been proposed for sensing different blood components. This fiber has investigated in terahertz (THz) region from 1.5 to 3.50 THz, intending to superior relative sensitivity with low confinement loss (CL). Circular air holes have been employed in the formation of the partial type-b crystalline core in a symmetric manner. A significant relative sensitivity response of 80.93%, 80.56%, 80.13%, 79.91%, and 79.39% are achieved for the targeted analytes such as RBCs, hemoglobin, WBCs, plasma, and water at frequency/ = 1.5 THz. In X-polarization mode, a negligible CL of 1.23 x 10(-11) dB/m, 8.63 x 10(-12) dB/m, 4.93 x 10(-12) dB/m, 2.93 x 10(-12) dB/m, and 1.13 x 10(-12) dB/m are also gained, respectively, for same analytes and at same THz frequency. Moreover, effective area (A<sub>eff</sub>), V-Parameter (V<sub>eff</sub>), dispersion (β<sub>2</sub>), spot size (W<sub>eff</sub>), and beam divergence (θ) have been determined over the investigated region. The improved outcomes are anticipated that the proposed CC-PCF sensor will be opened a new epoch in biomedical sensing purposes.

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**Title:** Optical Properties of New Type of Superconductor-Semiconductor Metamaterial Photonic Crystals  
**Author(s):** Aly, AH (Aly, Arafa H.); Mohamed, D (Mohamed, Doaa); Elsayed, HA (Elsayed, Hussein A.); Vigneswaran, D (Vigneswaran, Dhasarathan)  
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**Abstract:** Based on the fundamentals of the characteristic matrix method, we theoretically investigate the optical properties of onedimensional superconductor metamaterial photonic crystals. The photonic crystals are composed of a superconductor layer and two semiconductor metamaterial layers of In0.53Ga0.47As with different doping densities. The numerical results show negative values in permittivity of the metamaterial layer along a broad band of the incident radiation. The negative values show a significant effect on the optical properties of the present structure. Moreover, the optical properties of our design can be controlled by different parameters such as thicknesses of the layers, the operating temperature and the doping density. Our results may be suitable for different applications in the optical community.

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**Author Keywords:** Superconductor; Photonic crystals; Metmaterial; Optical properties  
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**Title:** Mechanical properties and characterization of zirconium oxide (ZrO2) and coconut shell ash(CSA) reinforced aluminium (Al 6082) matrix hybrid composite  
**Author(s):** Kumar, KR (Kumar, K. Ravi); Pridhar, T (Pridhar, T.); Balaji, VSS (Balaji, V. S. Sree)  
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Abstract: This study focuses on the microstructure and mechanical properties while incorporating zirconium oxide and coconut shell ash particles in Al 6082 matrix composites. Zirconium oxide and coconut shell ash particles were varied from 0 to 10% and fabricated by stir casting process. The fabricated composites were subjected to X-ray diffractometer and SEM to confirm the presence of zirconium oxide and coconut shell ash particles. Hardness, density, impact strength, tensile strength, ductility and flexural strength analysis were carried on the developed hybrid composites to study the mechanical properties of composites. Scanning electron microscopy study were carried on the fractured tensile and impact test specimen to analyse the fracture mechanism. (C) 2018 Elsevier B.V. All rights reserved.

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Author(s): Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh)

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**Abstract:** Copper coated steel fibers reinforced LM13 aluminium alloy composites have been prepared using stir casting process. Experiments have been designed using response surface methodology (RSM) by varying wt% of reinforcement (0-10), pouring temperature (700-800 degrees C) and stirrer speed (350-800 rpm). Microstructures and dry sliding behaviour of composites have been investigated and reported. Composites prepared using high stirring speed shows uniform dispersion of reinforcement throughout the matrix. Regression equation is developed to predict the weight loss of composites and the error percentage is +/- 7. Response surface plots reveal that weight loss of composites decreased with increasing wt% of reinforcement and stirrer speed. Stir cast process parameters have been optimised for obtaining minimum weight loss and it's found to be a wt% of reinforcement of 8.17, pouring temperature of 778 degrees C and stirrer speed of 658 rpm. Worn surface shows fine grooves and shallow grooves in composites with higher wt% of reinforcement and delamination is observed for the composite contains lower wt% of reinforcement.

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**Author Keywords:** aluminium alloy; steel fibers; stir casting; microstructure; wear

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**Title:** Effect of Fiber Orientation on Mechanical Properties of Sisal Fiber Reinforced Epoxy Composites

**Author(s):** Kumaresan, M (Kumaresan, M.); Sathish, S (Sathish, S.); Karthi, N (Karthi, N.)

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**Abstract:** This present work evaluated the effect of fiber orientation on mechanical properties of sisal fiber reinforced epoxy composites. In this work sisal fiber is used as reinforcement which treated with NaOH solution for enhancing the bonding strength between fiber and resin by removing moisture contents. Samples of different orientations of sisal fiber reinforced composites were fabricated by compression molding and investigated their mechanical properties like tensile strength and flexural strength. The work of this experimental study has been carried out to determine the mechanical properties due to the effect of sisal fiber orientations such as 0 degrees/90 degrees, 90 degrees and +/- 45 degrees orientation. The results of this study indicate the orientation 90 degrees shows the better mechanical properties compare than 0 degrees/90 degrees and +/- 45 degrees

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**Title:** Biologically inspired artificial intrusion detection system for detecting wormhole attack in MANET

**Author(s):** Sundararajan, TVP (Sundararajan, T. V. P.); Ramesh, SM (Ramesh, S. M.); Maheswar, R (Maheswar, R.); Deepak, KR (Deepak, K. R.)

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**Abstract:** A mobile ad hoc network (MANET) does not have traffic concentration points such as gateway or access points which perform behaviour monitoring of individual nodes. Therefore, maintaining the network function for the normal nodes when other nodes do not forward and route properly is a big challenge. One of the significant attacks in ad hoc network is wormhole attack. In this wormhole attack, the adversary disrupts ad hoc routing protocols using higher bandwidth and lower-latency links. Wormhole attack is more hidden in character and tougher to detect. So, it is necessary to use mechanisms to avoid attacking nodes which can disclose communication among unauthorized nodes in ad hoc networks. Mechanisms to detect and punish such attacking nodes are the only solution to solve this problem. Those mechanisms are known as intrusion detection systems (IDS). In this paper, the suggested biological based artificial intrusion detection system (BAIDS) include hybrid negative selection algorithm (HNSA) detectors in the local and broad detection subsection to detect anomalies in ad hoc network. In addition to that, response will be issued to take action over the misbehaving nodes. These detectors employed in BAIDS are capable of discriminating well behaving nodes from attacking nodes with a good level of accuracy in a MANET environment. The performance of BAIDS in detecting wormhole attacks in the background of DSR, AODV and DSDV routing protocols is also evaluated using Qualnet v 5.2 network simulator. Detection rate, false alarm rate, packet delivery ratio, routing overhead are used as metrics to compare the performance of HNSA and the BAIDS technique.

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**Author Keywords:** Routing; Wormhole; Intrusion; Detection; Anomaly

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**Title:** A Novel Smart Routing Protocol for Remote Health Monitoring in Medical Wireless Networks

**Author(s):** Sundararajan, TVP (Sundararajan, T. V. P.); Sumithra, MG (Sumithra, M. G.); Maheswar, R (Maheswar, R.)

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**Abstract:** In a Medical Wireless Network (MWN), sensors constantly monitor patient's physiological condition and movement. Inter-MWN communications are set up between the Patient Server and one or more Centralized Coordinators. However, MWNs require protocols with little energy consumption and the self-organizing attribute perceived in ad-hoc networks. The proposed Smart Routing Protocol (SRP) selects only the nodes with a higher residual energy and lower traffic density for routing. This approach enhances cooperation among the nodes of a Mobile Ad Hoc Network. Consequently, SRP produces better results than the existing protocols, namely Conditional Min-Max Battery Cost Routing, Min-Max Battery Cost Routing and AdHoc On-demand Distance Vector in terms of network parameters. The performance of the erstwhile schemes for routing protocols is evaluated using the network simulator Qualnet v 4.5.

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Record 34 of 250

**Title:** Considering transmission loss for an economic dispatch problem without valve-point loading using an EP-EPSO algorithm

**Author(s):** Muthu Vijaya Pandian, S (Muthu Vijaya Pandian, Sevugarathinam); Thanushkodi, K (Thanushkodi, Keppanagowder)

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**Abstract:** Economic dispatch (ED) is one of the most important optimization problems in a power system. The objective of ED is sharing the power demand among the online generators while keeping the minimum cost of generation as a constraint. The aim of this paper is to operate an electric power system as economically as possible within its security limits. This paper proposes the following 2 new particle swarm optimization (PSO) algorithms to solve a

nonconvex economic dispatch problem: an efficient PSO is termed as efficient particle swarm optimization (EPSO), and a hybrid of evolutionary programming (EP) and EPSO is termed as EP-EPSO.

Since ED was introduced, several methods have been used to solve these problems. However, none of these methods can provide an optimal solution because they become trapped at some local optima. Stochastic optimization techniques such as EPSO and EP have the advantage of a good convergent property. A significant speed-up can be obtained by the hybrid of these algorithms. The proposed techniques are tested on standard test systems available in the literature. The performance of the proposed EP-EPSO is compared with a) biogeography-based optimization, b) adaptive particle swarm optimization, c) the genetic algorithm, d) a 2-phase neural network, e) PSO with time-varying acceleration coefficients, f) NEW-PSO, and g) differential evolution with biogeography-based optimization. It is observed that the EP-EPSO has a higher convergence rate, advanced quality, and better optimal cost when compared to the other techniques. The considered ED problems have been solved, including transmission losses without valve-point loading effects.

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**Author(s):** Natesan, A (Natesan, Ayyanar); Govindasamy, KP (Govindasamy, Kuppusamy Peramandai); Gopall, TR (Gopall, Thavasi Raja); Dhasarathan, V (Dhasarathan, Vigneswaran); Aly, AH (Aly, Arafa Hussein)

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**Abstract:** An enhanced compact sensitivity of glucose sensor in the presence of human blood using tricore photonic crystal fibre is numerically proposed where one hollow channel filled by analyte acts as liquid core and remain two cores considering the silica substrate. The uniqueness of this structure is single material substrate and capable of tuning its sensitivity with minimum variation of glucose concentration (g/l) to detect the low level presence of glucose in the human blood. The transmission spectrum shows the maximum wavelength shift for x-polarisation at 470 nm, and 440 nm for y-polarisation to the response of refractive index of glucose resulting enhanced average sensitivity of 23,267.33 nm/RIU achieved at 470 nm of wavelength shift. The entire analysis and its mechanism of the proposed structure are applied with help of finite-element method.

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**Author Keywords:** blood; finite element analysis; refractive index measurement; photonic crystals; holey fibres; fibre optic sensors; chemical sensors; biomedical measurement; optical fibre polarisation; SiO2; wavelength 440; 0 nm; wavelength 470; 0 nm; finite-element method; y-polarisation; x-polarisation; maximum wavelength shift; transmission spectrum; single material substrate; tricore photonic crystal fibre based refractive index sensor; glucose concentration; silica substrate; liquid core; hollow channel; human blood; glucose sensor; enhanced compact sensitivity; glucose detection

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**Title:** Degenerate four-wave mixing for measurement of magnetic field using a nanoparticles-doped highly nonlinear photonic crystal fiber  
**Author(s):** Nallusamy, N (Nallusamy, Nagarajan); Zu, P (Zu, Peng); Raja, RVJ (Raja, R. Vasantha Jayakantha); Arzate, N (Arzate, N.); Vigneswaran, D (Vigneswaran, D.)  
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**Abstract:** A novel magnetic field sensor based on the degenerate four-wave mixing (DFWM) technique is theoretically proposed using a As<sub>2</sub>S<sub>3</sub>-core silica-cladding photonic crystal fiber (PCF). In order to enhance the sensitivity, we put forth a novel design of highly nonlinear PCF where the silica cladding is doped with either Au, Ag, or Al metallic nanoparticles. The effect of volume fraction of the nanoparticles within the cladding and the size of nanoparticles are considered as the control parameters in designing the magnetic field PCF sensor to obtain high sensitivity using this novel DFWM scheme. The PCF structure of the proposed sensor is optimized with the proposed pitch of 3 μm and air hole diameter of 2.78 μm. We consider a pumping pulsed laser light with a wavelength of 2100 nm in the mid-IR regime. It has been found that the optimized PCF with Al-SiO<sub>2</sub>-cladding with small volume fraction and small nanoparticle size possess magnetic field sensitivity values of 2.74 and -0.058 nm/Oe for the Stokes and anti-Stokes gain lines. (C) 2019 Optical Society of America

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Title: Effect of Copper Coating and Reinforcement Orientation on Mechanical Properties of LM6 Aluminium Alloy Composites Reinforced with Steel Mesh by Squeeze Casting

Author(s): Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Krishnamoorthy, K (Krishnamoorthy, Kirubaharan); Selvaraj, KS (Selvaraj, Kamal Shankar); Govindan, P (Govindan, Prabu)

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**Abstract:** Uncoated and copper coated steel wire mesh reinforcing LM6 aluminium alloy composites have been produced using squeeze casting process by varying reinforcement orientation viz., 0A degrees, 45A degrees and 90A degrees respectively. Microstructure of the castings has been examined and mechanical properties such as hardness, tensile strength and ductility have been investigated. Fracture surface of tensile specimens has been analysed using field emission scanning electron microscope. Microstructure of samples reveals that copper coating on steel wires improves the interface bonding between matrix and reinforcement. Average hardness values of 259 and 90 Hv have been observed in steel wire and matrix respectively. Tensile strength of composites increases with increasing angle of reinforcement orientation from 0A degrees to 90A degrees. Tensile strength increases up to 11% by reinforcing copper coated steel wire mesh at 90A degrees orientation as compared to LM6 aluminium alloy. Fracture surface of composites shows pullout of steel wires in uncoated steel wire mesh composites and broken wires in copper coated steel wire mesh composites respectively. Dimples have been observed on the fracture surface of LM6 aluminium alloy. In general, copper coated steel wire mesh composites offer better hardness and tensile strength compared to uncoated steel wire mesh composites and LM6 aluminium alloy. This may be attributed to the copper coating on steel wires which results better interface bonding between matrix and reinforcement.

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**Abstract:** Two ternary photonic crystals are proposed for sensing applications. The first one is composed of an air layer as an analyte sandwiched between two double negative material (DNM) layers whereas the second one consists of an air layer sandwiched between two epsilon negative material (ENM) layers. The transmission spectrum is studied for two different values of the refractive index of the analyte layer with  $\Delta n = 0.01$ . A specific peak in the transmission spectrum is observed and the wavelength at which the peak occurs is determined. The wavelength shift due to any change in the index of the analyte layer is also determined. The effect of varying the parameters of the DNM and ENM on the sensitivity of the sensor is discussed. It is found that the sensitivity of the structure ENM/air/ENM is much greater than that of the structure DNM/air/DNM and it is estimated as 26 times of the sensitivity of the latter structure.

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**Abstract:** The Flexible Manufacturing System (FMS) belongs to the class of production systems in which the main characteristic is the simultaneous execution of several processes and sharing a finite set of resources. Nowadays, FMS must attend to the demands of market needs for personalized products. Consequently the life-cycle of a product tends to be shorter and a greater variety of products must be produced in a simultaneous manner. The FMS considered in this work has 16 CNC machine tools for processing 80 varieties of products. Since the minimizing of a machine's idle time and thus the minimizing of total penalty costs are contradictory objectives, the problem has a multi-objective nature. The objective of this research was to develop a modified non-dominated sorting genetic algorithm (NSGA-II) for multi-objective optimization. The research will then evaluate and discuss the performance of the modified NSGA-II against the original NSGA-II. The existing NSGA II has been modified in order to improve the global optimal front and reduce the computational effort. The result has been compared with the existing NSGA-II, cuckoo search (CS), particle swarm optimization algorithm (PSO), etc. and it was found that the proposed approach was superior. (C) 2014 PEI, University of Maribor. All rights reserved.

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**Abstract:** Managing the products at the end of its intended use and recovery of such used products from the market is gaining significant importance these days due to global environmental concerns, resource reduction, government regulations and economic factors. Reverse logistics networks serve the same. The handling of products, components and materials during the recovery process can be called reverse logistics. Due to the increasing number of heavy vehicles in the country like India, large quantities of used tires are generated every year, and proper disposal of these used tires creates problem in the day-to-day life. Hence recover the value from these used tires in the form of material recovery is gaining importance. The implementation of such recycling system usually requires an appropriate reverse logistics network for choosing the physical locations, facilities, and transportation links to convey the used products from the end customers to the recycling facility. A case study was conducted and traditional reverse logistics networks involved in the used tires focusing quality characteristics has been analyzed in the paper and a new network has been suggested focusing the quality characteristics of material recovered out of used tires through laboratory work and at the same time without compromising the cost factor involved in it. Finally a mathematical model has been developed and optimization of cost subjected to quantity, and time has been done and validated for the decision makers involved in the reverse logistics activities of used tires recycling.

**Accession Number:** WOS:000348897200492**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 16th International Mechanical Engineering Congress (IMEC)**Conference Date:** JUN 13-15, 2014**Conference Location:** Tamil Nadu, INDIA**Conference Sponsors:** Natl Inst Technol, Dept Mech Engrg, Techn Educ Qual Improvement Programme**Author Keywords:** Reclaimed rubber; Reverse logistics; Network design; used tires; Tire Recycling Matlab; Material recovery**Addresses:** [Kumar, B. Manoj] Karpagam Univ, Coimbatore, Tamil Nadu, India.

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**Publisher:** TRANS TECH PUBLICATIONS LTD**Publisher Address:** KREUZSTRASSE 10, 8635 DURNTEN-ZURICH, SWITZERLAND**Web of Science Categories:** Engineering, Mechanical; Materials Science, Multidisciplinary; Mechanics**Research Areas:** Engineering; Materials Science; Mechanics**IDS Number:** BC0BL**ISSN:** 1660-9336**ISBN:** 978-3-03835-163-4**29-char Source Abbrev.:** APPL MECH MATER**Source Item Page Count:** 2**Output Date:** 2020-01-07**Record 41 of 250****Title:** Green Synthesis and Electrical Properties of p-CuO/n-ZnO Heterojunction Diodes**Author(s):** Annathurai, S (Annathurai, Sridevi); Chidambaram, S (Chidambaram, Siva); Baskaran, B (Baskaran, Balraj); Venkatesan, GKDP (Venkatesan, G. K. D. Prasanna)**Source:** JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS **Volume:** 29 **Issue:** 2 **Pages:** 535-540 **DOI:** 10.1007/s10904-018-1026-1 **Published:** MAR 2019

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**Cited Reference Count:** 23

**Abstract:** Green production of nanomaterials and their materials properties studies are majorly important for the futuristic development of nanodevices. We had green synthesized the ZnO and CuO nanoparticles using the extract of Eucalyptus globulus leaves. The obtained ZnO and CuO nanoparticles were studied for their structural, morphological and optical properties. The green synthesized CuO and ZnO nanoparticles have showed the crystalline size of about 12.29 and 10.16nm. The transmission electron microscopic images of green synthesized ZnO and CuO nanoparticles revealed the morphological information and their respective average sizes of 46 and 32nm. Optical absorbance spectrum revealed the existence of morphology based quantum confinement in the green ZnO and CuO nanoparticles. Further we have fabricated the p-CuO/n-ZnO heterojunction device using the green synthesized nanoparticles and also evaluated the electrical properties of the p-n junction diode. Under the light illumination the photodiode characteristic were studied for the obtained p-n junction diode. Finally, the energy band diagram of the photodiode responsible for the electronic transport had also discussed. [GRAPHICS]

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**Title:** INVESTIGATION ON MECHANICAL AND WEAR PROPERTIES OF ZINC-COATED STEEL WIRES REINFORCED LM6 ALUMINIUM ALLOY COMPOSITES BY SQUEEZE CASTING

**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh)

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Abstract:

Zinc-coated steel wires (1-5 numbers) reinforced in LM6 matrix composites have been prepared by squeeze casting process. Microstructure, hardness, tensile strength, ductility and dry sliding wear behavior of composites have been investigated by varying sliding distance and load. Fracture surface of tensile specimens and worn out surface of wear samples have been examined using field emission scanning electron microscope (FESEM). The results reveal that hardness of composites increased with increasing distance from matrix to steel wires. Maximum hardness values of 751 VHN and 611 VHN are observed in steel wire and at the interface of steel wire - aluminium, respectively. Tensile strength of composites increased upto 24% by reinforcing three steel wires in matrix. During the wear test, weight loss, wear rate and coefficient of friction decreased with increasing number of wires embedded in matrix and increased with increasing sliding distance and load. LM6 aluminium alloy reinforced with five numbers of steel wires decreased the weight loss upto 17% as compared to matrix under 40 N load and a sliding distance of 2000 m. Fracture surface of tensile specimen shows dimple formation in matrix and broken wires are observed in composites. Worn surface of composites shows fine grooves, whereas delamination is observed in matrix. In general, reinforcement of zinc-coated steel wires in LM6 aluminium alloy exhibited better mechanical properties and wear resistance compared to matrix.

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Author Keywords: Aluminium alloy; squeeze casting; steel wires; microstructure; mechanical properties; wear

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Effect of tungsten carbide, silicon carbide and graphite particulates on the mechanical and microstructural characteristics of AA 5052 hybrid composites

Author(s):

Dhas, DSEJ (Dhas, D. S. Ebenezer Jacob); Velmurugan, C (Velmurugan, C.); Wins, KLD (Wins, K. Leo Dev); BoopathiRaja, KP (BoopathiRaja, K. P.)

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**Abstract:** Reinforced aluminium metal matrix composite materials are being used extensively in diverse fields that include aerospace and automobile. In this investigation, we introduce two distinct and novel types of aluminium hybrid composites and characterize their mechanical properties and microstructure. The first type was fabricated by reinforcing aluminium alloy (AA 5052) with tungsten carbide (WC) and graphite particulates and the second type was fabricated by reinforcing AA 5052 with silicon carbide (SiC) and graphite particulates. The composite material was processed through the melt-stir casting method and characterized by analyzing their densities, micro hardness, Charpy impact strength, tensile strength and peak elongation. Melt-stir casting method was chosen due to its cost effectiveness and productivity. Scanning Electron Microscopy (SEM) and Energy Dispersive Spectroscopy (EDS) studies were conducted to analyze thorough mixing of the reinforcements in the aluminium matrix metal. It was found that addition of tungsten carbide and graphite particulates with AA 5052 resulted in an increase in micro hardness and Charpy impact strength by 10.3% and 34.2% respectively, which are found to be better when compared to that of adding SiC and graphite particulates with AA 5052. Moreover, tensile tests revealed that there was a drop in tensile strength for the Al/SiC/graphite composites, while the peak elongation increases for both composites. On the other hand, while adding WC and graphite particulates the tensile strength of the composite improved by 15.12%. Also, the SEM fractographs taken for Al/SiC/graphite composite samples, subjected to Charpy impact and tensile tests revealed the presence of particle fractures and cracks and confirmed the possibility of plastic deformation. The results showed the Al/WC/graphite composites to be the superior among the two fabricated composites in terms of mechanical properties and therefore have good potential for structural applications.

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**Title:** Investigation on Mechanical Properties and Wear Behaviour of Squeeze Cast LM13 Aluminium Alloy Reinforced with Copper Coated Steel Wires  
**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Selvarajan, R (Selvarajan, Rohith); Athanarsamy, S (Athanarsamy, Sujeevan); Arumugam, S (Arumugam, Satheshkumar); Veerakumar, G (Veerakumar, Gajendhiran)  
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**Abstract:** Copper coated steel wires (1-5 numbers) reinforced in LM13 aluminium alloy composites have been prepared using squeeze casting process. Microstructure of composites has been investigated and mechanical properties viz., hardness, tensile strength and ductility have been examined and reported. Dry sliding wear behaviour of composites has been investigated by varying sliding distance and load. Fracture surface of broken tensile specimens and worn surface of wear samples have been investigated using field emission scanning electron microscope (FESEM). The results reveal that copper coated steel wires reinforcement in LM13 aluminium alloy improves the mechanical properties and wear resistance. Average hardness values of 136 BHN and 96 BHN have been observed in steel wire and at the interface of steel wire and aluminium alloy, respectively. Tensile strength of composites increased up to 28% by reinforcing three copper coated steel wires in LM13 aluminium alloy. Dry sliding wear test results reveal that weight loss, wear rate and coefficient of friction decreased with increasing number of copper coated steel wires reinforcement in LM13 matrix. However, weight loss of samples increased with increasing sliding distance and load. LM13 aluminium alloy reinforced with five numbers of copper coated steel wires decreased the weight loss up to 69% as compared to LM13 aluminium alloy tested at 40 N load and a sliding distance of 2500 m. Fracture surface of composites shows broken steel wires and dimples are observed in LM13 matrix. Worn surface of composites shows fine and shallow grooves; whereas delamination is observed in LM13 aluminium alloy. In general, copper coated steel wire reinforcement in LM13 aluminium alloy exhibited better mechanical properties and wear resistance compared to matrix.

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**Author Keywords:** aluminium alloy; casting; hardness; microstructure; steel wire; tensile strength; wear

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Record 45 of 250

**Title:** Detection of moisture content in transformer oil using platinum coated on D-shaped optical fiber  
**Author(s):** Yusoff, SFAZ (Yusoff, S. F. A. Z.); Mezher, MH (Mezher, M. H.); Amiri, IS (Amiri, I. S.); Ayyanar, N (Ayyanar, N.); Vigneswaran, D (Vigneswaran, D.); Ahmad, H (Ahmad, H.); Zakaria, R (Zakaria, R.)  
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**Abstract:** The presence of moistures in transformer deteriorates transformer insulation. These effects decrease both electrical and mechanical strength of the transformer. Water in transformer oil also brings the risk of bubble formation when desorption of water increases the local concentration of gases in the oil. The water content in the insulating oil (or transformer oil) needs to be less than 10 ppm a normal temperature or contradictory, it will affect the efficiency of the power transformer system. Here, we report a D-shaped optical fiber sensor coated with a platinum thin layer with a thickness of 25 nm was designed to detect the response of transverse electric field (TE) power towards the content of moisture in the insulating oil. A Simulative based investigation using COMSOL Multiphysics has also been carried out to study the relation between analyze on the materials a different refractive index and the simulation study follows the finite element method (FEM). Four samples of aged oil were tested from actual transformer oil with different values of water contents of 15 ppm, 16 ppm, 18 ppm, and 21 ppm. The oil samples were dropped on the sensing region of the fiber and resulting in the drop of TE power from the initial value. It was observed that higher values of water percentages in the oil caused large fluctuations in TE power. On top of that, the changes in TE power show that the sensor is having fast response and good sensitivity.

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**Title:** Analysis of temperature based power spectrum in EDFA and YDFA with different pump power for THz applications  
**Author(s):** Jayarajan, P (Jayarajan, P.); Kuppusamy, PG (Kuppusamy, P. G.); Sundararajan, TVP (Sundararajan, T. V. P.); Thiyagupriyadharsan, MR (Thiyagupriyadharsan, M. R.); AhamedYasar, Z (AhamedYasar, Z.); Maheswar, R (Maheswar, R.); Amiri, IS (Amiri, Iraj S.)  
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**Abstract:** The indispensable output power spectrum for optical amplifier system in the presence of temperature using EDFA and YDFA is numerically investigated. The notion of temperature suggested as -30 degrees C, 30 degrees C, 60 degrees C, 90 degrees C. Each output spectrum has been analyzed at -30 degrees C, 30 degrees C, 60 degrees C, 90 degrees C in both EDFA and YDFA systems. The output power at the point of two maxima as 26.829 dBm and 23.260 dBm at wavelengths 1530 nm and 1550 nm for EDFA, maximum output power as -6.499 dBm at wavelength 1043 nm for YDFA system are examined keeping 900 mw pump power and 60 degrees C temperature. Similarly, the maximum output power is analyzed as -6.499 dBm at the wavelength of 1043 nm for the same pump power and temperature in YDFA system. Also the results have been plotted for various pump power and temperature.

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**Author(s):** El-Amassi, DM (El-Amassi, Dena M.); Taya, SA (Taya, Sofyan A.); Ramanujam, NR (Ramanujam, Nambi R.); Vigneswaran, D (Vigneswaran, Dhasarathan); Udaiyakumar, R (Udaiyakumar, R.)

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**Abstract:** We investigate the extension of energy band gap in one-dimensional ternary photonic crystal. We assume one of the layers constituting the ternary photonic crystal to be left-handed material (LHM) of simultaneously negative electric permittivity and magnetic permeability. The photonic crystal has the structure dielectric/LHM/dielectric. We show in this work, the energy band gap in one-dimensional ternary photonic crystal can be dramatically enlarged with the increase of the LHM layer thickness. Moreover, it can also be enlarged with the decrease of both the negative permittivity and permeability of the LHM layer. The effects of the angle of incidence and the number of layers are also investigated.

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**Author Keywords:** Ternary photonic crystal; Band gap; Left-handed material; Transmission  
**KeyWords Plus:** SLAB WAVE-GUIDE; NEGATIVE INDEX; CORE LAYER; ANISOTROPIC-METAMATERIAL; DISPERSION PROPERTIES; SURFACE-WAVES; SENSOR; REFLECTION; ENHANCEMENT; SUBSTRATE  
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**Record 48 of 250**  
**Title:** Optical properties study of nano-composite filled D shape photonic crystal fibre  
**Author(s):** Udayiakumar, R (Udayiakumar, R.); Junaid, KAM (Junaid, K. A. Mohamed); Janani, T (Janani, T.); Maheswar, R (Maheswar, R.); Yupapin, P (Yupapin, P.); Amiri, IS (Amiri, I. S.)  
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**Cited Reference Count:** 11  
**Abstract:** With the nano-composite materials gaining momentum in the optical field, a new nano-composite filled D shape Photonic Crystal Fiber (PCF) is designed and the various optical properties are investigated with help of Finite Element Method. In the proposed structure the D-shape PCF is made up of silica with embedded silver nano-particles and air holes are distributed along the fibre. The designed fibre shows various optical properties such as dispersion, birefringence, beat length and loss with respect to wavelength and compared with different filling factor like 0.1, 0.3 and 0.5. From our estimation and comparative analysis, it has been proved that the fibre loss has been decreased with increasing filling factor. Further this also showed flat dispersion at maximum filling factor.

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**Author Keywords:** Nanoparticles; Nano-composite; Dispersion; Birefringence; Beat length  
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**Record 49 of 250**  
**Title:** INVESTIGATION OF THE MECHANICAL PROPERTIES OF A SQUEEZE-CAST LM6 ALUMINIUM ALLOY REINFORCED WITH A ZINC-COATED STEEL-WIRE MESH  
**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Krishnamoorthy, K (Krishnamoorthy, Kirubaharan); Selvaraj, KS (Selvaraj, Kamal Shankar); Govindan, P (Govindan, Prabu)  
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**Abstract:** Composites of an LM6 aluminium alloy reinforced with a zinc-coated steel-wire mesh were prepared with squeeze casting. Three different orientations of 0 degrees, 45 degrees and 90 degrees of the zinc-coated steel-wire mesh were used with the aluminium alloy. The microstructures of the castings were analysed and the hardness, tensile strength and ductility were investigated. The fracture surfaces of the matrix and the composites were examined using a field-emission scanning electron microscope (FESEM). The results revealed that the hardness of the composites increased compared to the matrix. Also, the tensile strength of the composites increased with the increasing angle of orientation. The tensile strength increased by up to 11 % for the composite with a steel-wire mesh at the 90 degrees orientation. However, the ductility of the composites decreased due to the presence of micropores at the interface of aluminium and the steel-wire mesh. Micrographs of fracture surfaces showed a dimple formation in the matrix and a wire pull-out; a broken wire was observed in the composites.

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**Document Type:** Article

**Author Keywords:** aluminium alloy; steel-wire mesh; squeeze casting; mechanical properties

**KeyWords Plus:** SLIDING WEAR BEHAVIOR; MATRIX COMPOSITES; MICROSTRUCTURE; OPTIMIZATION; PARAMETERS; COPPER; FABRICATION; PARTICLES; PRESSURE; COATINGS

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#### Record 50 of 250

**Title:** Multi-objective vehicle routing problem with time windows: Improving customer satisfaction by considering gap time

**Author(s):** Sivaramkumar, V (Sivaramkumar, V.); Thansekhar, MR (Thansekhar, M. R.); Saravanan, R (Saravanan, R.); Amali, SMJ (Amali, S. Miruna Joe)

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**Cited Reference Count:** 31

**Abstract:** The vehicle routing problem with time windows is a combinatorial optimisation problem in distribution logistics. It has been infrequently measured as a multi-objective optimisation problem for the benefit of customers. For the purposes of this research, the measurement of multi-objective vehicle routing problem with time windows will be in terms of a minimisation of the total distance travelled by all vehicles, the total number of vehicles used (management beneficial objectives) and the total gap between ready time and issuing time (customer beneficial objective). It is possible to satisfy customers

by issuing the goods as close as possible to the customer ready time. This is because possibilities for going out of stock during the above said time gap (by chance of improper inventory maintenance) are reduced with a minimised total time gap, which in turn increases the sales orders for the manufacturing management. An improved genetic algorithm, called the fitness aggregated genetic algorithm, has been implemented to resolve the problem. The proposed algorithm incorporates a fitness aggregation approach and dedicated operators, such as selection based on aggregate fitness value and best cost route crossover, to resolve the multi-objective problem. The algorithm was validated on Solomon's bi-objective benchmark models for the minimisation of the total distance travelled and total number of vehicles used, and the results formed by proposed algorithm are competitive to best known results. After validating the proposed algorithm on bi-objective models, the third objective - namely, the total time gap between ready time and issuing time - is included in the bi-objective model. The results show that the suggested algorithm creates improved customer-satisfied routes without drastically affecting the total distance travelled and total number of vehicles used.

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**Author Keywords:** Vehicle routing problem; time windows; customer satisfaction; multi-objective optimisation; genetic algorithm; aggregate fitness value

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## Record 51 of 250

**Title:** Modeling and Analysis of Mechanical Properties of Aluminium Alloy (A413) Reinforced with Boron Carbide (B4C) Processed Through Squeeze Casting Process Using Artificial Neural Network Model and Statistical Technique

**Author(s):** Soundararajan, R (Soundararajan, R.); Ramesh, A (Ramesh, A.); Sivasankaran, S (Sivasankaran, S.); Vignesh, M (Vignesh, M.)

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**Abstract:** The employment of aluminum based metal matrix composites are exponentially growing up in wide range of applications in automobiles. The prevailing demand to produce refined pore free and near net shape composites, is sufficed by squeeze casting process. The main intent of this work is to predict the experimental results and to analyze the effects of process variables on squeeze cast A413-B4C composites. The experimental work is carried out based on Full Factorial Design (FFD) and Artificial Neural Network (ANN) model has been developed based on feed forward back propagation to map the mechanical properties with different architectures. Optimal model shows appropriate results that can be estimated rather than measured, thereby reducing the testing time and cost. Further, quantitative and statistical analyses were performed in order to evaluate the effect of process parameters on the mechanical properties of the composites. (C) 2017 Elsevier Ltd. All rights reserved.

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**Title:** Comparison of energy performance of heat pumps using a photovoltaic-thermal evaporator with circular and triangular tube configurations

**Author(s):** Mohanraj, M (Mohanraj, M.); Gunasekar, N (Gunasekar, N.); Velmurugan, V (Velmurugan, V.)

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**Cited Reference Count: 29**

**Abstract:** In this work, the energy performance parameters of heat pumps using a photovoltaic-thermal evaporator (PV-TE) with circular and triangular tube evaporator configurations are compared. The experimental observations were made in a heat pump under the meteorological conditions of Coimbatore city in India. The standard energy performance parameters of a heat pump (using PV-TE) such as, condenser heating capacity, coefficient of performance (COP), evaporator heat gain, solar energy input ratio and photovoltaic panel efficiency were calculated using experimental observations. The energy performance parameters of the heat pump were simulated using artificial neural networks to have a realistic energy performance comparison. The results show that triangular tube PV-TE configuration has enhanced the major energy performance parameters of the heat pump such as, condenser heating capacity, COP and panel efficiency by 3%-7%, 3%-5% and 4%-13%, respectively when compared to the circular tube PV-TE configuration.

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**Title:** Effect of injection timing on a diesel engine fueled with bael biodiesel

**Author(s):** Dhanamurugan, A (Dhanamurugan, A.); Subramanian, R (Subramanian, R.)

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**Cited Reference Count:** 12

**Abstract:** This study presents effect of injection timing on performance, combustion and emission characteristics of Bael (Aegle marmelos) biodiesel and its blend on a single cylinder direct injection diesel engine. Standard injection pressure (220 bar) is maintained throughout the experiment. Injection timings (22 degrees, 23 degrees and 24 degrees bTDC) were considered under steady state conditions of the engine. At injection timing of 22 degrees bTDC, blend B20 (20% biodiesel + 80% diesel, by volume) gave optimum performance. Thus B20 fuel can be effectively used in a diesel engine as an alternative fuel without any modification in the engine.

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**Title:** In situ stabilization of entrapped elemental mercury  
**Author(s):** Devasena, M (Devasena, M.); Nambi, IM (Nambi, Indumathi M.)  
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**Cited Reference Count:** 19  
**Abstract:** Elemental mercury is a dense immiscible fluid which gets entrapped as residual mercury in the pore spaces of the subsurface during improper disposals and accidental spills. This paper investigates in situ stabilization of entrapped elemental mercury to mercury sulphide using aqueous sodium polysulphide solution. Batch experiments showed 100% conversion efficiency of elemental mercury to mercury sulphide in a period of 96 h with sodium polysulphide/elemental mercury molar ratio of 1. XRD analysis identified the precipitate formed as mercury sulphide. Micromodel experiments, with glass beads as porous media, further demonstrated in situ stabilization of entrapped mercury under different residual mercury saturations. It was found that in a period of 10 days, 10% of entrapped mercury was stabilized as mercury sulphide, 0.088% was removed as dissolved mercury and the remaining elemental mercury was retained in porous media encapsulated by the newly formed mercury sulphide precipitate. However, there was no leaching of mercury from the micromodel effluent once stabilization was achieved. (C) 2013 Elsevier Ltd. All rights reserved.

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**Title:** Superconductor Nanometallic Photonic Crystals as a Novel Smart Window for Low-Temperature Applications

**Author(s):** Aly, AH (Aly, Arafa H.); Ameen, AA (Ameen, Ayman A.); Vigneswaran, D (Vigneswaran, D.)

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**Abstract:** The control of electromagnetic wave propagation has played an essential role in recent technology. In this paper, we present a novel type of smart window using one-dimensional superconductor nanometallic photonic crystals. The present idea depends on the control of the transmittance values based on the angle of incidence of the electromagnetic waves. We have investigated the transmittance of the proposed novel smart window based on a two-fluid model and a characteristic matrix method. We also obtained the effect of the operating temperature, number of periods, and thicknesses of the constituent materials. Finally, the proposed design promises for useful applications such as space exploration, satellites, and low-temperature applications.

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**Author Keywords:** Smart window; Photonic crystals; Superconductor; Transmittance

**KeyWords Plus:** DEFECT MODES; BAND-GAP

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**Record 56 of 250****Title:** Battery Recovery Based Lifetime Enhancement (BRLE) Algorithm for Wireless Sensor Network**Author(s):** Mahima, V (Mahima, V.); Chitra, A (Chitra, A.)**Source:** WIRELESS PERSONAL COMMUNICATIONS **Volume:** 97 **Issue:** 4 **Pages:** 6541-6557 **DOI:** 10.1007/s11277-017-4854-3 **Published:** DEC 2017**Times Cited in Web of Science Core Collection:** 3**Total Times Cited:** 3**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 4**Cited References:** Abouzar P, 2016, IEEE T WIREL COMMUN, V15, P6638, DOI 10.1109/TWC.2016.2586844

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**Abstract:** Increasing the lifetime of the network and utilizing the resources to its maximum limit is the major issue in Wireless Sensor Network (WSN). The wireless sensor nodes in sensor network are powered using rechargeable batteries. However, providing energy to nodes in the remote environment is a major issue in WSN. Hence WSN needs a new energy efficient algorithm to enhance the network lifetime. In a sensor node, the transceiving module consumes more energy when compared to other modules. In this paper, a Battery Recovery based Lifetime Enhancement (BRLE) algorithm is discussed, which considers battery voltage curve for scheduling the transceiving module of the sensor nodes. The Markov model helps in determining the state of the sensor node as CH and CM based on battery recovery process. By scheduling the transceiving module based on the battery terminal voltage, recovery factor and distance between the nodes, the lifetime of the network is enhanced. Experimental results show that the algorithm outperforms the others by 1.38 times increased lifetime and 1.574 times increased throughput. The BRLE decreases the HOT SPOT and energy hole problem, avoiding loss in connectivity with the sink.

**Accession Number:** WOS:000416826200089**Language:** English**Document Type:** Article**Author Keywords:** Wireless sensor network; Recovery effect; Energy management policy; Energy efficient; Hot spot; Voronoi**KeyWords Plus:** MODEL**Addresses:** [Mahima, V.] Sri Krishna Coll Technol, Elect & Commun Engr, Coimbatore 641042, Tamil Nadu, India.

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## Record 57 of 250

**Title:** Properties of Foundry Sand, Ground Granulated Blast Furnace Slag and Bottom Ash Based Geopolymers under Ambient Conditions**Author(s):** Thaarrini, J (Thaarrini, Janardhanan); Ramasamy, V (Ramasamy, Venkatasubramani)**Source:** PERIODICA POLYTECHNICA-CIVIL ENGINEERING **Volume:** 60 **Issue:** 2 **Pages:** 159-168 **DOI:** 10.3311/PPci.8014 **Published:** 2016**Times Cited in Web of Science Core Collection:** 3**Total Times Cited:** 3**Usage Count (Last 180 days):** 2**Usage Count (Since 2013):** 8**Cited References:** Abubakar AU, 2012, INT J SUSTAIN CONSTR, V3, P56

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**Cited Reference Count:** 49

**Abstract:** This paper presents a feasibility study on the manufacture of geopolymer concrete at low concentrations of alkaline solutions and lower densities and incorporating waste products like Foundry sand without compensating for the strength properties. Ground Granulated Blast Furnace Slag (GGBFS) and Bottom ash (BA) were used as source materials. From the preliminary studies, the replacement of Foundry sand to Natural sand is taken as 50:50. The density range was taken as 1800 Kg/m<sup>3</sup>, 2000 Kg/m<sup>3</sup>, 2200 Kg/m<sup>3</sup> and 2400 Kg/m<sup>3</sup>. Sodium Hydroxide (NaOH) and Sodium Silicate (Na<sub>2</sub>SiO<sub>3</sub>) were used as alkaline activators and the molarity of NaOH solution was reduced from 8M up to 4 M. The percentage ratio of BA-GGBFS was selected as 0, 25, 50, 75 and 100. The ratio of Alkaline liquid to Binder content was taken as 0.4 and the molar ratio of NaOH solution was kept as 1. The ratio of Sodium silicate solution to Sodium hydroxide was taken as 2. Ambient curing was adopted for all the mixes. The properties of Geopolymer concrete paver blocks such as Compressive strength, flexural strength and split tensile strength, water absorption, Acid attack and Water absorption were conducted as per IS 15658: 2006. Test results show that satisfactory strength properties of geopolymer concrete using Foundry sand can be achieved even with lower concentrations of NaOH solution under ambient curing conditions. This would pave way for creating a greener environment by the efficient use of byproducts and waste materials in concrete.

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**KeyWords Plus:** FLUIDIZED-BED COMBUSTION; FLY-ASH; FINE AGGREGATE; STRENGTH; WORKABILITY; PRODUCTS; CONCRETE; MORTARS; CEMENT

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**Record 58 of 250**

**Title:** Study of synergistic influence of l-cysteine on polyvinyl alcohol - Taguchi method: continuous electrochemical monitoring of corrosion inhibition of mild steel by poly(vinyl alcohol-cysteine)

**Author(s):** Sabirneeza, AAF (Sabirneeza, A. Ali Fathima); Subhashini, S (Subhashini, S.)

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**Cited Reference Count:** 53

**Abstract:** Parametric optimization for better synergism between polyvinyl alcohol (PVA) and L-cysteine was optimized using Taguchi design, a statistical approach. The corrosion inhibition property of poly(vinyl alcohol-cysteine) (PVAC) on mild steel corrosion was continuously monitored using electrochemical techniques such as polarization and impedance methods. Continuous monitoring of the system reveals the formation of stable film on the metal surface. Temperature effect on the inhibition properties of PVAC was studied using electrochemical measurements. Calculated kinetic and thermodynamic parameters supported the spontaneous adsorption of PVAC. Atomic force microscopic and laser profiler analysis confirmed the adsorption of PVAC on mild steel surface. Theoretical calculations using Hyperchem 7.0 proved the better corrosion mitigation properties of PVAC compared to PVA.

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**Record 59 of 250**

**Title:** 2-[(E)-2-Hydroxy-3-methoxybenzylidene]-N-methylhydrazinecarbothioamide

**Author(s):** Shankara, BS (Shankara, B. S.); Shashidhar, N (Shashidhar, N.); Patil, YP (Patil, Yogesh Prakash); Krishna, PM (Krishna, P. Murali); Nethaji, M (Nethaji, Munirathinam)

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**Cited References:** Bruker, 2006, APEX2 SAINT SADABS

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**Cited Reference Count:** 9

**Abstract:** In the crystal structure of the title compound, C11H15N3O2S, molecules are linked by pairs of N-H center dot center dot center dot O and O-H center dot center dot center dot S hydrogen, forming inversion dimers. These dimers are linked by N-H center dot center dot center dot S hydrogen bonds, forming double-stranded chains propagating along the b-axis direction. The two C atoms of the end chain of the molecule are disordered over two sets of sites [occupancy ratio 0.574 (9): 0.426 (9)].

**Accession Number:** WOS:000421571700101

**PubMed ID:** 23476442

**Language:** English

**Document Type:** Article

**Addresses:** [Shankara, B. S.] Sri Krishna Inst Technol, Dept Chem, Bangalore 560090, Karnataka, India.  
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**E-mail Addresses:** muralikp21@gmail.com

**Publisher:** INT UNION CRYSTALLOGRAPHY

**Publisher Address:** 2 ABBEY SQ, CHESTER, CH1 2HU, ENGLAND

**Web of Science Categories:** Crystallography

**Research Areas:** Crystallography

**IDS Number:** V8E8O

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**29-char Source Abbrev.:** ACTA CRYSTALLOGR E

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**Record 60 of 250**

**Title:** AN OPTIMIZED ENERGY CONSUMPTION ALGORITHM FOR MANET

**Author(s):** Suganya, S (Suganya, S.); Palaniammal, S (Palaniammal, S.)

**Edited by:** Rajesh R; Ganesh K; Koh SCL

**Source:** INTERNATIONAL CONFERENCE ON MODELLING OPTIMIZATION AND COMPUTING **Book Series:** Procedia Engineering **Volume:** 38 **Pages:** 903-910 **DOI:** 10.1016/j.proeng.2012.06.113 **Published:** 2012

**Times Cited in Web of Science Core Collection:** 3

**Total Times Cited:** 3

**Usage Count (Last 180 days):** 0

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**Cited References:** Aydogdu C, 2011, IEEE T MOBILE COMPUT, V10, P1361, DOI 10.1109/TMC.2010.239

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**Cited Reference Count:** 12

**Abstract:** Power-optimization is an essential issue for all types of mobile hosts in the network. This paper proposes a new approach for optimizing power consumption in mobile ad hoc networks (MANETs) that consents to maximum life time of mobile hosts while transmitting a packet from the source to destination. It can be implemented by avoiding nodes which has a minimum residual battery power. The proposed approach is implemented by introducing a threshold value on each node and transmitting the equal length of packet on the route. This threshold indicates whether the node should be included in making routing decisions for a packet and length of the packet considered for equal power consumption. Extensive simulation results are presented to verify the effectiveness of the proposed approach. (c) 2012 Published by Elsevier Ltd. Selection and/or peer-review under responsibility of Noorul Islam Centre for Higher Education

**Accession Number:** WOS:000315044700112

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Modelling Optimisation and Computing (ICMOC)

**Conference Date:** APR 10-11, 2012

**Conference Location:** Kumarakoil, INDIA

**Conference Sponsors:** Dept Mech Engr, Noorul Islam Ctr Higher Educ

**Author Keywords:** Maximum network lifetime; Threshold value; Power consumption; Length of Packet

**Addresses:** [Suganya, S.] TamilNadu Coll Engr, Dept Comp Applicat, Coimbatore, Tamil Nadu, India.

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**Publisher:** ELSEVIER SCIENCE BV

**Publisher Address:** SARA BURGERHARTSTRAAT 25, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Engineering, Multidisciplinary; Operations Research & Management Science

**Research Areas:** Computer Science; Engineering; Operations Research & Management Science

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Source Item Page Count: 8  
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Output Date: 2020-01-07

Record 61 of 250

Title: NEW INEQUALITIES ON THE HOMOGENEOUS FUNCTIONS

Author(s): Lokesha, V (Lokesha, V.); Nagaraja, KM (Nagaraja, K.); Simsek, Y (Simsek, Y.)

Source: JOURNAL OF THE INDONESIAN MATHEMATICAL SOCIETY Volume: 15 Issue: 1 Pages: 49-59 Published: APR 2009

Times Cited in Web of Science Core Collection: 3

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Usage Count (Last 180 days): 0

Usage Count (Since 2013): 0

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Xiao ZG, 2007, INT J APPL MATH STAT, V11, P193  
ZHANG Z.-H., 2005, ADV STUD CONT MATH, V11, P186  
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Cited Reference Count: 20

Abstract: In this paper, we define the homogeneous functions  $G_n(\mu, T)(a, b)$  and  $b$ . Further we study properties, relations with means, applications to inequalities and partial derivatives. We also give some applications of these means related to Farey fractions and Ky Fan type inequalities.

Accession Number: WOS:000210359800005

Language: English

Document Type: Article

Author Keywords: Identric mean; Heron mean; Logarithmic mean and monotonicity; Farey fractions

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Publisher: INDONESIAN MATHEMATICAL SOC

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Open Access: DOAJ Gold

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Record 62 of 250

Title: A CLASS OF NEW THREE-PARAMETER GENERALIZED WEIGHTED MEANS

Author(s): Xiao, ZG (Xiao, Zhen-Gang); Zhang, ZH (Zhang, Zhi-Hua); Lokesha, V (Lokesha, V.); Nagaraja, KM (Nagaraja, K. M.)

**Source:** INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS & STATISTICS **Volume:** 11 **Issue:** N07 **Special Issue:** 5 **Pages:** 193-202 **Published:** NOV 2007

**Times Cited in Web of Science Core Collection:** 3

**Total Times Cited:** 3

**Usage Count (Last 180 days):** 0

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**Cited References:** GINI CORRADO, 1938, METRON, V13, P3  
Qi F, 1998, P ROY SOC A-MATH PHY, V454, P2723, DOI 10.1098/rspa.1998.0277  
Xiao Z., 2005, INT REV PURE APPL MA, V1, P93  
Zhang Zh.-H., 2006, RGMIA RES REPORT COL, V9, P1

**Cited Reference Count:** 4

**Abstract:** In this paper, a class of new three-parameter generalized weighted mean in n variables is defined. Some elementary properties are listed. Using the generalized Van der Monde determinant, an explicit form of this mean is given.

**Accession Number:** WOS:000422317000018

**Language:** English

**Document Type:** Article

**Author Keywords:** Weighted mean; three-parameter; functional; inequality; Van der Monde determinant

**Addresses:** [Xiao, Zhen-Gang] Hunan Inst Sci & Technol, Dept Math, Yueyang City 414006, Hunan, Peoples R China.  
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**Publisher:** CENTRE ENVIRONMENT SOCIAL & ECONOMIC RESEARCH PUBL-CESER

**Publisher Address:** PO BOX 113 ROORKEE, UTTARAKHAND, 247 667, INDIA

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**Research Areas:** Mathematics

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**29-char Source Abbrev.:** INT J APPL MATH STAT

**ISO Source Abbrev.:** Int. J. Appl. Math. Stat.

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**Record 63 of 250**

**Title:** Modified energy minimization scheme using queue threshold based on priority queueing model

**Author(s):** Jayarajan, P (Jayarajan, P.); Maheswar, R (Maheswar, R.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.)

**Source:** CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS **Volume:** 22 **Pages:** 12111-12118 **DOI:** 10.1007/s10586-017-1564-2 **Supplement:** 5 **Published:** SEP 2019

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**Cited References:** Akyildiz IF, 2002, COMPUT NETW, V38, P393, DOI 10.1016/S1389-1286(01)00302-4  
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Mhatre VP, 2005, IEEE T MOBILE COMPUT, V4, P4, DOI 10.1109/TMC.2005.2  
Polastre J, 2004, P 2 INT C EMB NETW S, P95, DOI DOI 10.1145/1031495.1031508

**Cited Reference Count:** 13

**Abstract:** A wireless sensor network (WSN) is a group of specialized sensor nodes with a communication infrastructure intended to monitor and record conditions at diverse locations. The critical issue in WSNs is represented by the limited availability of energy within the network and hence optimizing energy consumption is very important. One important existing technique used to prolong the network lifetime of WSN is the Energy Minimization Scheme (EMS) using N-Policy Model (NPM) based on queue threshold but this technique increases mean delay. This paper proposes a Modified Energy Minimization Scheme (MEMS) which reduces the mean delay and average energy consumption of individual nodes in the cluster based heterogeneous sensor network using queue threshold based on M/D/1 Priority Queueing Model (PQM) in order to prolong the network lifetime. The expression for the optimal value of queue threshold for which the node consumes minimum energy using PQM is also derived. Results show that the mean delay is highly reduced in PQM when compared to the NPM and the trade-off exist between the average energy consumption and mean delay is explored. We perform simulations and the results obtained show that the simulation results match with the analytical results thus validating the accuracy of the approach.

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**Language:** English  
**Document Type:** Article  
**Author Keywords:** Queue threshold; Energy; Mean delay; PQM; NPM  
**KeyWords Plus:** SENSOR; LIFETIME  
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Record 64 of 250

**Title:** Markovian model based indoor location tracking for Internet of Things (IoT) applications  
**Author(s):** Malar, ACJ (Malar, A. Christy Jeba); Kousalya, G (Kousalya, G.); Ma, MD (Ma, Maode)  
**Source:** CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS **Volume:** 22 **Pages:** 11805-11812 **DOI:** 10.1007/s10586-017-1494-z **Supplement:** 5 **Published:** SEP 2019  
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**Cited References:** Au AWS, 2013, IEEE T MOBILE COMPUT, V12, P2050, DOI 10.1109/TMC.2012.175  
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Zhang T, 2009, COMPUT J, V52, P902, DOI 10.1093/comjnl/bxn039  
**Cited Reference Count:** 29

**Abstract:** The monitoring of personnel movements, package tracking and other constructional material based tracking is a top concern in pervasive smart environment. Wireless sensor network (WSN) has given its own individuality in tracking scenario. The challenges faced in this paper deals about an effective 2-dimensional movable system tracking and finding the possible prediction of its exact location of the object in the sensing area. An indoor based WSN with wireless sensor nodes has been created, in which RSSI based location sensing methodology is used. The sensing area is classified as shells and the movement of the node is judged with markov model. The proposed algorithm is tested with various speed conditions suitable for IoT applications. Real study shows the effectiveness of the proposed two dimensional algorithms. The obtained results show minimal location error and accurate location of the object. The proposed methodology serves as the better solution for IoT applications. The proposed algorithm outperforms the existing algorithm with reduced error

rate and computing iterations or complexity. A cloud enabled IoT based application is developed to location the elderly and post-surgical people. The developed application serves as a better solution for monitoring the elderly people inside the smart home environment without disturbing their privacy.

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**Language:** English

**Document Type:** Article

**Author Keywords:** Pervasive computing; Wireless sensor network(WSN); Location sensing; Receiver signal strength indicator (RSSI)

**Addresses:** [Malar, A. Christy Jeba] Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore 641042, Tamil Nadu, India.

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#### Record 65 of 250

**Title:** Performance analysis of cluster based homogeneous sensor network using energy efficient N-policy (EENP) model

**Author(s):** Nageswari, D (Nageswari, D.); Maheswar, R (Maheswar, R.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.)

**Source:** CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS **Volume:** 22 **Pages:** 12243-12250 **DOI:** 10.1007/s10586-017-1603-z **Supplement:** 5 **Published:** SEP 2019

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**Usage Count (Last 180 days):** 0

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**Cited References:** Carle J, 2004, COMPUTER, V37, P40, DOI 10.1109/MC.2004.1266294

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Yarvis M, 2005, IEEE INFOCOM SER, P878

**Cited Reference Count:** 20

**Abstract:** A wireless sensor network (WSN) consists of a large number of sensor nodes deployed over a geographical area and have broad applications like environment monitoring, target tracking and surveillance. The unique characteristics of WSNs such as limited bandwidth, computing capacity, data delivery delay and severe energy constraints make their design more challenging. A critical issue in WSN is the limited availability of energy and hence optimizing energy is very important. This paper proposes an energy minimization technique based on queue threshold using N-policy M/M/1 queueing model of a sensor node in a cluster acting as cluster member (CM) and cluster head (CH). We develop an analytical model of a cluster based sensor network based on queue threshold using N-policy M/M/1 queueing model. The performance of the proposed model is analysed in terms of average energy consumption and mean delay when the node acts as CM and CH. We also derive the expression for the optimal value of queue threshold ( $N^*$ ) for which the node consumes minimum energy. Results show that the average energy consumption savings is high when the node acts as CH when compared to node acting as CM and the trade-off exist between the average energy consumption and mean delay is explored. We perform simulations and the results obtained show that the simulation results match with the analytical results thus validating the accuracy of the approach.

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**Language:** English

**Document Type:** Article

**Author Keywords:** Queue threshold; Energy; Mean delay; Cluster member; Cluster head

**KeyWords Plus:** ROUTING PROTOCOL; LIFETIME

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**Title:** Dual-wavelength transmission system using double micro-resonator system for EMI healthcare applications

**Author(s):** Amiri, IS (Amiri, I. S.); Bunruangses, M (Bunruangses, M.); Chaiwong, K (Chaiwong, K.); Udaiyakumar, R (Udaiyakumar, R.); Maheswar, R (Maheswar, R.); Hindia, MN (Hindia, M. N.); Dimyati, KB (Dimyati, K. B.); Yupapin, P (Yupapin, P.)

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**Abstract:** To meet the 5G requirements for higher bandwidth, the focus has been shifted to millimeter waves paving the way to radio over fiber (RoF) in order to minimize radio losses. Dual wavelength transmission within RoF for electromagnetic immunity interference (EMI) can be utilized within local area network and long-haul transmission. Health care services will also be able to utilize the technology to transmit health-related data from thousands of patients to the

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specific destination by connecting to the long-haul fiber optic cable connection. To make dual-wavelength transmission stable and reliable, the formation of the two-wavelength light source is proposed in this paper by means of the double coupled micro-ring resonators. The proposed RoF system will be able to transmit EMI signals of patients over 300 km of optical fiber link and 3 m wireless link without the need for any intermediate signal amplifying device. All the patient's data will be available to any doctor in any hospital securely by integrating with currently available wireless and the internet of things systems.

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**Title:** Design of a modified single-negative metamaterial structure for sensing application

**Author(s):** Srinivasan, K (Srinivasan, K.); Ben Ali, N (Ben Ali, Naim); Trabelsi, Y (Trabelsi, Youssef); Rajan, MSM (Rajan, M. S. Mani); Kanzari, M (Kanzari, Mounir)

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**Abstract:** A new topology of modified negative effective permeability material (NEPM) are studied by adding a small similar form with different angles to the basic single split-ring resonators. We report our work conducted on the design, simulation and micro-fabrication of sensing system based on a modified split-ring resonator (MSRR) structure around 140 GHz operation frequency. Once the NEPM cells are excited, the reflection and transmission coefficients from the excitation mechanism can be measured by using quasi-optical technique with normal incidence. It has been shown that our proposal NEPM exhibits a high resonant frequency which is extraordinarily sensitive to the changes of the geometries and the properties of metal shape. By applying the new design of square Plus symbol (+) curve to the SRRs, more condensed size and higher sensitivity can be attained compared to conventional SRRs. Furthermore, the

enhancement of sensitivity of the new design is also exposed. The considered sample double defect corner square modified form (DCD2) is fabricated in our lab using a conventional printed circuit board process with 2 mu m aluminum and validated by comparing simulated profiles with measurements.

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**Title:** Performance enhancement of shorted polygonal archimedean spiral antenna using hybrid reflector

**Author(s):** Udaiyakumar, R (Udaiyakumar, R.); Maheswar, R (Maheswar, R.); Janani, T (Janani, T.); Vigneshram, R (Vigneshram, R.); Amiri, IS (Amiri, Iraj S.); Yupapin, P (Yupapin, P.)

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**Abstract:** In this paper, performance enhancement in a shorted polygonal archimedean spiral antenna has been proposed by backing it with a hybrid reflector. In the proposed work, two arms of the polygonal spiral antenna are shorted at an outer octagonal conductive ring aiding in size reduction of the polygonal spiral. The shorted polygonal spiral antenna with the advantages of low profile and the good axial ratio at lowest frequencies of operation is backed by a hybrid reflector that utilizes combination ferrite layer which tapers towards the center to a PEC layer. The hybrid reflector helps to improve the gain of the antenna significantly at low frequencies without compromising the gain of the antenna at high frequencies. The antenna operates from 0.6 GHz to 6.5 GHz with a minimum boresight gain of 0.2 dBic at 0.6 GHz and an average gain of 6 dBic from 2.2 GHz. The antenna also demonstrates a good axial ratio of <= 3 dB over the VSWR bandwidth in a low-profile dimension of 0.13 lambda(0) x 0.13 lambda(0) x 0.04 lambda(0). The proposed work thus presents a novel idea to develop a compact high-performance spiral by shorting the arms of a polygonal spiral with a conductive ring and backing the same by a hybrid reflector and cavity. (C) 2019 Elsevier GmbH. All rights reserved.

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Title: Dual wavelength optical duobinary modulation using GaAs-AlGaAs microring resonator

Author(s): Amiri, IS (Amiri, I. S.); Zakaria, R (Zakaria, R.); Anwar, T (Anwar, T.); Bahadoran, M (Bahadoran, M.); Vigneswaran, D (Vigneswaran, D.); Yupapin, P (Yupapin, P.)

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Abstract: In this article, optical duobinary modulation technique has been used for modulating the dual-wavelength optical signal generated by the microring resonator system. The optical signals are de-multiplexed to two different optical signals with center wavelength of 1540 and 1545 nm afterward, these are modulated and transmitted over an optical fiber communication system, where the high performance of the transmitted signals is obtained. The NRZ binary signals are used to modulate the optical signals. The high-quality factor and performance of the system has been investigated by applying an optimization through the system parameters, where significant improvement could be obtained and highest quality factor of 32.871 shows the successful transmission. The second wavelength of the dual-wavelength has undergone the same modulation technique and has experienced the optical transmission after the system optimization has been performed, where the quality factor for the received optical signal at 1545 nm center wavelength is 39.282. These results show the introduced modulation technique is suitable to apply for the optical signals generated by the microring resonators.

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**Record 70 of 250**

**Title:** Temperature sensor utilizing a ternary photonic crystal with a polymer layer sandwiched between Si and SiO2 layers

**Author(s):** El-Amassi, DM (El-Amassi, Dena M.); Taya, SA (Taya, Sofyan A.); Vigneswaran, D (Vigneswaran, Dhasarathan)

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**Abstract:** Recently, one-dimensional periodic ternary photonic crystals have shown outstanding properties when compared to one-dimensional periodic binary photonic crystals. In this work, a ternary photonic crystal is proposed as a temperature sensor. The structure of the ternary photonic structure is considered Si/polymer/SiO2. The transmission spectra of the proposed ternary photonic structure are studied for different temperatures. It is observed that as the temperature increases, the transmission peak shifts toward higher wavelengths due to thermo-optic and thermal expansion coefficients of the polymer. It is found that the temperature-sensitive transmission peak shift is considerably enhanced due to the insertion of the polymer layer between Si and SiO2 to constitute a ternary photonic crystal.

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**Document Type:** Article

**Author Keywords:** Ternary photonic crystal; Temperature sensor; Polymers

**KeyWords Plus:** SLAB WAVE-GUIDE; LEFT-HANDED MATERIAL; BAND-GAP

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#### Record 71 of 250

**Title:** Green synthesis and characterization of silver nanomaterials using leaf extract of prosopis cineraria for antibacterial and anti-cancer applications

**Author(s):** Periyasamy, Y (Periyasamy, Yuvarani); Baskaran, B (Baskaran, Balraj); Senniappan, V (Senniappan, Vijayachitra); Chidambaram, S (Chidambaram, Siva)

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**Cited Reference Count:** 23

**Abstract:** The silver nanoparticles (AgNPs) were synthesized by biodegradable method using leaf extract of Prosopis cineraria. The green synthesized nanoparticles showed the surface plasmonic resonance peak at 441 nm which confirmed the presence of AgNPs. The phyto chemicals of Prosopis cineraria leaf extract acted as reducing agents, which were corroborated by the infrared spectrum. Electron microscopic analysis substantiate that the AgNPs were spherical in shape with an average size of 40-60 nm. The x-ray diffraction study revealed that the AgNPs were in face centered cubic crystal system. The antimicrobial activity of the synthesized AgNPs was investigated for broad spectrum of microorganisms. Also, the synthesized AgNPs were analyzed for their anticancer activity against the Lung cancer cell line (A549).

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**Author Keywords:** biomaterials; silver; antibacterial; anticancer

**KeyWords Plus:** NANOPARTICLES; BIOSYNTHESIS

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#### Record 72 of 250

**Title:** Performance Analysis of Contention Based Priority Queuing Model Using N-Policy Model for Cluster Based Sensor Networks

**Author(s):** Jayarajan, P (Jayarajan, P.); Maheswar, R (Maheswar, R.); Sivasankaran, V (Sivasankaran, V.); Vigneswaran, D (Vigneswaran, D.); Udaiyakumar, R (Udaiyakumar, R.)

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**Abstract:** An important challenge in WSN is the availability of energy since the devices are battery operated and hence minimizing energy is very important. Many works have been already proposed to prolong the lifetime of WSN which includes an energy minimization scheme based on N-Policy Model using queue threshold but this technique introduces higher mean delay. In this work, we propose a new scheme using queue threshold based on N-Policy Priority Queuing Model by considering channel contention into account which reduces the energy consumption of nodes during data transmission as well as mean delay since the packets are prioritized. Here proposed analytical model of a cluster based sensor network and analyze the performance of the scheme in terms of performance metrics such as average energy consumption and mean delay considering channel contention. the derived expression for the optimal value of threshold for which the node consumes minimum energy. Results show that the average energy consumption savings is 60% for the optimal threshold value when compared to no threshold condition by considering channel contention.

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**Language:** English

**Document Type:** Proceedings Paper

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**Conference Host:** Adhiparasakthi Engn Coll

**Author Keywords:** Mean delay; average energy consumption; queue threshold; contention

**KeyWords Plus:** LIFETIME

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Record 73 of 250

Title: ANALYSIS OF SYMMETRIC MULTILEVEL INVERTER USING UNIPOLAR PULSE WIDTH MODULATION FOR PHOTOVOLTAIC APPLICATION

Author(s): Prabaharan, N (Prabaharan, Natarajan); Arun, V (Arun, Vijayakumar); Chinnadurai, T (Chinnadurai, Thangam); Arulkumar, K (Arulkumar, Kalyanasundaram); Jerin, ARA (Jerin, Amalorpavaraj Rini Ann); Palanisamy, K (Palanisamy, Kaliannan)

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Cited Reference Count: 15

Abstract: This paper investigates a reduced switch symmetric multilevel inverter integrated with photovoltaic panels to generate the quality of output waveforms. The photovoltaic panel is tested under Standard Test Conditions to prove the effectiveness of reduced switch multilevel inverter in renewable energy application. Perturb and observe maximum power point tracking is utilized for tracking the maximum power from photovoltaic panel. Boost converter is utilized for gaining the voltage at the required level. Unipolar Phase Disposition Pulse Width Modulation technique is adopted to generate the switching pulses of power semiconductor switches at reduced switch multilevel inverter. The parameters like Total Harmonic Distortion, fundamental RMS voltage and Crest Factor are calculated for various modulation techniques and the values are compared with conventional Cascaded H-bridge multilevel inverter (CHBMLI). Simulation results are obtained using MATLAB/SIMULINK for justifying the operation of reduced switch multilevel inverter.

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Language: English

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Author Keywords: Multilevel inverter; Pulse Width Modulation; Total Harmonic Distortion; Photovoltaic; Solar; Maximum power point technique (MPPT); Perturb and Observer (P&O); Boost converter

KeyWords Plus: SYSTEM; CONFIGURATION; TOPOLOGIES; CONVERTER

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Title: Studies on Electro Mechanical Aspects in Ultrasonically Welded Al/Cu Joints

Author(s): Raj, NM (Raj, N. Mohan); Kumaraswamidhas, LA (Kumaraswamidhas, L. A.); Nalajam, PK (Nalajam, Pavan Kumar); Vendan, SA (Vendan, S. Arungalai)

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**Cited Reference Count:** 15  
**Abstract:** Ultrasonic welding has been widely used to bond dissimilar conductive wires, battery cell terminals in relay applications. In this paper, dissimilar metals, Al/Cu were joined using ultrasonic welding for conductive applications. Welding trials were carried out by varying three control parameters: (1) vibrational amplitude (40, 60, and 80  $\mu$ m), (2) clamping pressure (1, 1.2, and 1.4 bar), (3) weld time (0.1, 0.2, and 0.3 s). Experimental trails were designed based on L-9 Taguchi method. Interpretation of tensile strength and microhardness results revealed that the satisfactory weldments were obtained for higher welding energies when compared to low welding energies. From the microstructural analysis, the bond formation of metals and failure modes were studied. SEM and XRD images revealed the four major intermetallic compounds at the interface of joint; AlCu, Al<sub>2</sub>Cu, Al<sub>3</sub>Cu<sub>4</sub>, and Al<sub>4</sub>Cu<sub>9</sub> with resistivity values of 11.415, 8.027, 10.612, and 14.243  $\Omega$ -cm respectively. The resistivity values of intermetallic compounds observed in the joint was almost 5-6 times higher than the Al.  
**Accession Number:** WOS:000422843600011  
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**KeyWords Plus:** ALUMINUM; ENERGY  
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**Record 75 of 250**  
**Title:** Power search algorithm (PSA) for combined economic-emission dispatch problems considering valve point effects in economic load dispatch  
**Author(s):** Arumugam, P (Arumugam, Prakash); Coimbatore Subramanian, R (Coimbatore Subramanian, Ravichandran)  
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#### Cited Reference Count: 29

**Abstract:** Economic load dispatch has become the prime and major concern in power system networks. Use of nonrenewable fuels as an input to power systems results in toxic gas emission and depletion of resources for future generations. Allocation of optimal power to generators serves as a solution to this issue. The suggested power search algorithm (PSA) is a novel solution for the reduction of the fuel cost, emissions, and power loss. This algorithm searches its solution inside the search space from minimum to maximum in case of forward search. The global optimum solution is obtained with much less execution time compared to different optimization algorithms. The robustness of the PSA is tested with various IEEE test systems. The proposed PSA proves to be better than the existing algorithms.

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**Author Keywords:** Combined economic-emission dispatch; economic load dispatch; power search algorithm; valve-point loading

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#### Record 76 of 250

**Title:** Hyper-geometric energy factor based semi-Markov prediction mechanism for effective cluster head election in WSNs

**Author(s):** Rajarajeswari, PL (Rajarajeswari, P. L.); Karthikeyan, NK (Karthikeyan, N. K.)

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**Abstract:** The lifetime of a Wireless Sensor Network (WSN) depends on the efficiency of the Cluster Head (CH) selection techniques that address most of the significant issues related to network management. The existing energy based CH selection mechanisms consider that all the participating sensors are trustworthy. Conversely, the trust-based CH selection schemes assume that the sensor nodes are energy efficient. But, these assumptions of energy factor or trust assessment made by the CH selection mechanisms may not be true and the Residual Energy (RE) of the sensors may not be the sole factor to identify an effective CH in a WSN. Hence, this paper presents hybrid integrated energy and trust assessment based forecasting model known as Hyper-geometric Energy Factor based Semi-Markov Prediction Mechanism (HEFSPM) for effective CH election so as to improve the lifetime of the network. From the simulation results, it is inferred that HEFSPM is superior in improving the lifetime of the network to a maximum extent of 22% than the existing CH election mechanisms considered for investigation.

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**Title:** Serials use in post graduates' dissertations of pharmaceutical sciences: collection building by citation analysis

**Author(s):** Nagaraja, A (Nagaraja, Aragudige); Prashanth, AB (Prashanth, A. B.)

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**Cited Reference Count:** 40

**Abstract:** Purpose - This study aims to analyze the resources used in the citations of 156 postgraduate dissertations submitted to the Rajiv Gandhi University of Health Sciences (RGUHS) through the Acharya & BM Reddy College of Pharmacy (ABMRCP), and prepares the core journal list according to the Bradford's law of scattering. For any research and academic institutional libraries, books and journals are considered as key resources. As the resources are more and diverse, collection building is a tough task for librarians. Citation analysis is one of the best methods to list the most used resources by the users. The paper highlights the extent use of in-house resources and open access journals in the citations.  
Design/methodology/approach - Citations of PG dissertations during 2010-2013 (four years) were compiled, the data about the resources cited in each were taken and the list of resources used in PG dissertations was prepared. The list of core journals obtained by citation analysis was matched with the list of online journals provided by Health Science Library & Information Network (HELINET) of RGUHS as well as print list of journals subscribed by ABMRCP Library, and evaluated the print and online consortia journals used by ABMRCP community. The list of core journals' ranking in the SCImago Journal & Country Rank (SJR) list-pharmaceutical sciences was identified to know the impact of the journals.  
Findings - The study gives the list of different information resources cited in the pharmacy dissertations. The core list obtained by applying the Bradford's law of scattering in this study has 19 journals pertaining to pharmacy. After matching the core list with the Keogh's list, it is found that 31 journals can be considered very useful in the field of pharmacy. Twelve journals listed in the core list have different positions in the SJR ranking 2013. The results indicate that open-access journals with online journals subscribed through HELINET and print holdings have been cited more in the PG dissertations.  
Originality/value - The topic of journal use in this case may be of greatest interest to those who purchase journals in the sciences and, very specifically, the pharmaceutical sciences.

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**Title:** Behaviour of Hybrid Fibre-Reinforced Concrete Frames with Infills Against Lateral Reversed Loads  
**Author(s):** Ramadevi, K (Ramadevi, K.); Babu, DLV (Babu, D. L. Venkatesh); Venkatasubramani, R (Venkatasubramani, R.)  
**Source:** ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING **Volume:** 39 **Issue:** 10 **Pages:** 6959-6967 **DOI:** 10.1007/s13369-014-1273-6 **Published:** OCT 2014  
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**Cited References:** Arulselvan Suyamburaja, 2008, American Journal of Applied Sciences, V5, P328, DOI 10.3844/ajassp.2008.328.333  
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 Suresh Babu R., 2011, INT J ADV ENG SCI TE, V2

**Cited Reference Count:** 9

**Abstract:** Infilled frame construction represents a common type of construction in urban areas. The frames carry gravity loads and earthquake loads while the infills provide a building envelope and or internal partitioning. In several moderate earthquakes, buildings with infills have shown excellent performance even though many such buildings were not designed and detailed for earthquake forces. It is seen that the masonry infills contribute significant lateral stiffness, strength, overall ductility and energy dissipation capacity during moderate earthquakes. By providing fibres in the critical zones, it is possible to improve the performance of the frames against lateral loading. Hence, an attempt is made by using hybrid fibres (a combination of Polyolefin and Steel fibres) in the joints of the frames in various proportions and to determine the behaviour of the hybrid fibre-reinforced concrete (HFRC) frames under lateral reversed load. The percentages of fibres used are 0, 0.75, 1.5 and 2%. This research work presents the experimental results of RC frames and HFRC frames and also the comparison of the same using ANSYS.

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**Title:** A New Compact Microstrip Integrated E-Array Patch Antenna with High Gain and High Aperture Efficiency

**Author(s):** Pavithra, R (Pavithra, R.); Mohanageetha, D (Mohanageetha, D.); Anita, EAM (Anita, E. A. Mary); Subramaniam, M (Subramaniam, M.)

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**Cited Reference Count:** 12

**Abstract:** This paper describes a new compact single-feed, single-layer microstrip E-shaped patch antenna. It is an integrated array antenna and it is designed for a frequency range around 2.45 GHz ISM band. It is a symmetrical antenna suitably designed for WLAN application. This prototype was fabricated on a FR4 substrate with a relative permittivity of 4.7 and about 0.8 mm thickness. The aperture efficiency and gain of about 72 % and 6.7 dBi was obtained. It can be achieved by numerical algorithms for electromagnetic solutions like finite element method (FEM) and the method of moments (MOM) by using electromagnetic simulation software. For validation purpose CAD FEKO 6.1 suite is used. The bandwidth and gain achieved in the array antenna is 15 % greater than the single patch antenna.

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**Author Keywords:** Microstrip antenna; Circular polarization; Gain; Directivity

**KeyWords Plus:** WIDE-BAND

Record 80 of 250

**Title:** Optimal Power Flow with FACTS Controller Using Hybrid PSO

**Author(s):** Kumar, EN (Kumar, E. Nanda); Dhanasekaran, R (Dhanasekaran, R.)

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**Abstract:** Optimal power flow (OPF) is to find steady state operation point which minimizes generation cost, loss etc. or maximizes loadability in power system, which improves the system performance by satisfying certain constraints. In general, different optimization methods are used in the literature to solve the OPF problem. In some research works, the optimization process is done by considering total fuel cost or by considering the environmental pollution that occurs during power generation. But in some other research works, FACTS controllers are used to improve the power flow without considering the power generation cost. Power loss is one of the most important parameters in OPF, but in most of the research works it is not considered. By taking all these drawbacks into account, a hybrid particle swarm optimization (PSO) method is proposed for the OPF problem with FACTS controller considering power loss and cost. The proposed hybrid PSO includes two stages of PSO and neural network. In the first stage of PSO, the amount of power generated by each generator for a particular load demand is estimated by satisfying different constraints with low cost and in the second stage, the voltage and angle to be injected for all the possible lines flows between buses except the slack bus are estimated. A neural network is used here for identifying the exact placement of FACTS controller. If the starting bus number is given as input, then the corresponding bus (ending bus) where the FACTS controller is to be connected, the voltage and angle injecting values are obtained as output. The result shows the performance of the proposed method with low cost and reduction in line losses.

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**Author Keywords:** OPF; PSO; Neural network; UPFC; FACTS controller

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**Title:** Will open-access journals substitute big-deal subscriptions in engineering college libraries in India?

**Author(s):** Aragudige, N (Aragudige, Nagaraja); Vasanthakumar, M (Vasanthakumar, M.)

**Source:** ELECTRONIC LIBRARY **Volume:** 32 **Issue:** 6 **Pages:** 852-863 **DOI:** 10.1108/EL-12-2012-0164 **Published:** 2014

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**Cited References:** Antelman K, 2004, COLL RES LIBR, V65, P372, DOI 10.5860/crl.65.5.372

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**Cited Reference Count:** 25

**Abstract:** Purpose - This paper aims to analyse the impact of open-access (OA) journals in engineering and technology institutions, if libraries are not subscribed to the journals through the All India Council for Technical Education (AICTE) mandatory packages. In India, many engineering colleges do not subscribe to journals through business subscription models or consortia and invariably a majority of them depend on OA journals to fulfil their users' needs. Design/methodology/approach - The paper identifies the impact factors of mandatory journals made in big-deal subscriptions with the impact factors of OA journals available to access in Directory of OA Journals pertaining to engineering and technology.

**Findings -** The study reveals that journals subscribed through big-deal subscriptions have better impact in the scholarly communications than the OA journals.

**Research limitations/implications -** The results of this study cannot be generalized to all disciplines. Impact factors of journals can also be calculated by use of SCImago Journal Rank indicator, which uses the Scopus database. Publish or Perish can also be used to analyse Google Scholar rankings to identify the individual journal's impact.

**Originality/value -** The result of the study is useful for selection of e-journals in big-deal subscriptions and it highlights the implications and impact of OA journals in engineering and technology.

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**Author Keywords:** Open access; Electronic journals; Electronic resources; Impact factors; Package subscriptions

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**Title:** An Enhanced Approach on Handling Missing Values Using Bagging k-NN Imputation

**Author(s):** Kumutha, V (Kumutha, V.); Palaniammal, S (Palaniammal, S.)

**Book Group Author(s):** IEEE

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**Abstract:** Researchers in the database community have aroused great interest in handling high dimensional data sets for the past decades. Today's business captures inundate sets of data which includes digital documents, web pages-customer databases, hyper-spectral imagery, social networks, gene arrays, proteomics data, neurobiological signals, high dimensional dynamical systems, sensor networks, financial transactions and traffic statistics thereby generating massive high dimensional datasets. DNA microarray paves methods in identifying different expression levels of thousands of genes during biological process. The problem with microarrays is to measure gene expression from thousands of genes (features) from only tens of hundreds of samples. Microarray data often contain several missing values that may affect subsequent analysis. In this paper, a novel approach on imputation using k-NN with bagging method is proposed to handle missing value. The experimental result shows that the proposed method outperforms other methods in terms of distance and density of clusters. The proposed approach has enhanced the performance of traditional k-NN impute using bagging method.

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**Author Keywords:** clustering; microarray; missing value; bagging

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**Title:** Materials Effect in Sensing Performance Based on Surface Plasmon Resonance Using Photonic Crystal Fiber

**Author(s):** Khalek, MA (Khalek, Md Abdul); Chakma, S (Chakma, Sujan); Ahmed, K (Ahmed, Kawsar); Paul, BK (Paul, Bikash Kumar); Vigneswaran, D (Vigneswaran, Dhasarathan); Zakaria, R (Zakaria, Rozalina)

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**Cited Reference Count:** 25

**Abstract:** This article explores the effect of sensing performances with subject to change in different types of material and this study is carried out by the support of plasmon-coated photonic crystal fiber (PCF). Three different materials gold, niobium, and doping materials (niobium and Al<sub>2</sub>O<sub>3</sub>) have been used as sensing materials to find out the best performance of the raised structure. Each material deposited sequentially on the PCF surface and the structural characterization is analyzed by finite element method (FEM).The investigation shows that it can provide the enhanced wavelength sensitivity of 5000nm/RIU, 8000nm/RIU, and 10,000nm/RIU; and amplitude sensitivity of 171 RIU-1, 188 RIU-1, and 249 RIU-1 for gold, niobium, and doping materials, respectively, at analytes 1.37 and 1.38. In both cases, doping materials show best outcome. Moreover, the proposed model is also investigated to detect the change of phase matching point with the variation of center air hole diameter. The obtained results ensure that it may be helpful for any chemical or biological analytes detection.

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**Author Keywords:** Materials; Finite element method; Plasmon resonance; Photonic crystal fiber

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**Author(s):** Rajesh, R (Rajesh, R.)  
**Source:** SN APPLIED SCIENCES **Volume:** 1 **Issue:** 7 **Article Number:** UNSP 758 **DOI:** 10.1007/s42452-019-0754-3 **Published:** JUL 2019  
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**Abstract:** The fractional order proportional integral derivative controller (FOPID) replaces the conventional PID controller for its immense merits such as its simple structure, better set point tracking, high disturbance rejection, higher capability of handling model uncertainties in nonlinear and real time applications. This paper addresses the effectiveness of the FOPID controller on a level control of single conical system in real time. It is one of the classical nonlinear control problem and its shape not only contributes the proper mixing of liquids and also guarantee to drainage of solid wastes. This study, a dual loop controller is proposed and constructed with a master process and slave process for a level control of a single conical tank system. In the slave process, the output response obtained by the traditional PID controller combined with the conical tank reference model and compared with the output response of the master process. The obtained error signal is used to dynamically correct the parameters of the FOPID controller in the master process. The tuning of FOPID controller is a challenging task due to its presence of extra parameters and it efficiently carried out by particle swarm optimization (PSO) algorithm. The obtained result reveals that the Proposed PSO optimized FOPID controller with reference model demonstrated the better set point tracking, smooth controller response than other conventional integer order controllers.

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**Title:** Thermodynamic and water analysis on augmentation of a solar still with copper tube heat exchanger in coarse aggregate

**Author(s):** Dhivagar, R (Dhivagar, Ramasamy); Sundararaj, S (Sundararaj, Subramanian)

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**Abstract:** In this paper, the thermodynamic (energy and exergy) analysis and water analysis of a modified solar still augmented with copper tube heat exchanger in coarse aggregate have been carried out and compared with conventional still performance under the same climatic conditions. Basin water temperature, solar intensity, wind velocity, cumulative yield, water conductivity, total hardness, pH value and fluoride concentration are obtained from experimental results for saline, basin and distilled water. Energy efficiency, evaporation and convective heat transfer coefficient, exergy evaporation rate and exergy efficiency are determined from energy and exergy analysis. The results show that the modified still has an efficiency of 28% and 17% greater than the conventional still. The productivity of modified and conventional still is 6.23 kg m<sup>-2</sup> and 2.41 kg m<sup>-2</sup>, respectively. The exergy efficiency depends on the time of the test day and reaches a maximum value of 5.5% and 1.1%, respectively, for the modified and conventional still. From the water analysis, it is observed that the maximum distilled water pH, water conductivity, hardness and fluoride content are 7.5, 0.8 x 10<sup>-4</sup> S m<sup>-1</sup> (0.8 mu S cm<sup>-1</sup>), 0.5 x 10<sup>-3</sup> kg m<sup>-1</sup> (0.5 mg L<sup>-1</sup>) and 0.7 x 10<sup>-3</sup> kg m<sup>-3</sup> (0.7 mg L<sup>-1</sup>), respectively, with the still salinity removal efficiency of 99%. The results indicate that the modified still has higher energy and exergy efficiencies and better water quality with cumulative yield.

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**Title:** Influence of Tool Shoulder Concave Angle and Pin Profile on Mechanical Properties and Microstructural Behaviour of Friction Stir Welded AA7075-T651 and AA6061 Dissimilar Joint

**Author(s):** Periyasamy, YK (Periyasamy, Yuvaraj Kunnathur); Perumal, AV (Perumal, Ashoka Varthanan); Periyasamy, BK (Periyasamy, Boopathiraja Kunnathur)

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**Abstract:** In this present study, an attempt has been made to investigate the influence of tool shoulder concave angle and pin profile on mechanical properties and microstructural behaviour of friction stir welded AA7075-T651 and AA6061 dissimilar joint. The concave profile tool shoulder with three different angles of 1.5 degrees, 3 degrees and 4.5 degrees was employed. Besides, three different pin profiles like straight cylindrical, square and triangular were used to fabricate the FSW joints. The concave shoulder angle regulates the frictional heat, and the tool pin profile enhances the material flow to improve the mechanical properties of the joint. From this work, it was found that 3 degrees concave shoulder profile with square pin exhibits the maximum tensile strength, hardness and bending angle of 298N/mm(2), 143Hv and 49 degrees, respectively. The pulsating stirring action of the square tool pin exhibits ductile fracture, and it is evident from the presence of fine dimples.

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**Title:** Ultra-short bandwidth optical tweezer generation using GaAs ring resonator system  
**Author(s):** Amiri, IS (Amiri, I. S.); Anwar, T (Anwar, T.); Vigneswaran, D (Vigneswaran, D.); Yupapin, P (Yupapin, P.)  
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**Abstract:** In this article, the modified add/drop multiplexer system as ring resonator is proposed for optical tweezers generation. The entire effect is analyzed by the nonlinear existence of the proposed structure. The manipulation is of major importance and nanometer bandwidth optical tweezers are an effective tool for manipulating individual particles, where these can be applied for many applications in medical science. The trapping size of the tweezers varies depending on the bandwidth of the launching pulses, thus particles with nano and micrometer diameter can be tapped and stored within the system. In this study 10 and 15 nm optical tweezers could be generated at the drop and active ports of the ring resonator. The proposed ring resonator uses the GaAs waveguide to perform the interferences between the input waves which are the dark and bright solitons.

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**Author(s):** Ravikumar, K (Ravikumar, K.); Agilan, S (Agilan, S.); Raja, M (Raja, M.); Raja, L (Raja, L.); Gokul, B (Gokul, B.); Ganesh, R (Ganesh, R.); Muthukumarasamy, N (Muthukumarasamy, N.)  
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**Abstract:** Strontium (Sr)-doped SnO2(Sr:SnO2) insulating thin films of various concentrations were prepared by sol-gel spin-coating technique and were studied by x-ray diffraction (XRD), Field emission scanning electron microscope (FE-SEM), Ultra Violet-visible spectroscopy (UV-vis) and current- voltage (I-V) characteristics. The XRD pattern shows that the line-broadening effect would increase with an increase in Sr concentration and confirms the tetragonal structure of the films. The SnO2 and Sr-SnO2 thin films exhibited spherical shape of grains and increase in film surface roughness by the FE-SEM and AFM. images. UV-vis analysis exposes that band gap (E-g) value decreases with increase in Sr concentration. DC electrical analysis reveals that the high conductivity of 4 wt% in Sr:SnO2 thin film. Schottky barrier diodes (SBDs) were designed and performed for all the films. From the I-V analysis, the barrier height (Phi(B)) and ideality factor (n) were calculated for Al/Sr:SnO2/p-Si SBD, which reveals that the former has increased from 0.855 to 0.898 eV with increase in wt% of Sr concentration.

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**Author(s):** Vigneswaran, D (Vigneswaran, D.); Rajan, MSM (Rajan, M. S. Mani); Aly, MH (Aly, Moustafa H.); Rashed, ANZ (Rashed, Ahmed Nabih Zaki)  
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**Abstract:** In this paper, a novel fiber is proposed to support few linearly polarized (LP) modes, with the feature of a circular ring-shaped core filled by liquid. This fiber supports four LP modes: LP01, LP02, LP31 and LP11. The properties of all spatial modes are numerically analyzed by considering the different optical parameters such as confinement loss, dispersion and differential modal delay (DMD) at different temperatures. The obtained results show that the proposed fiber reduces the confinement loss as well as DMD over the entire range of the C-band. The same characteristics are also investigated and optimized at 1.55 m in the temperature range 20-80 degrees C. Both confinement loss and DMD evidently decrease with temperature leading to the possibility of using this type of fibers as temperature sensors.

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Abstract: A polarization splitter comprised of dual hollow-core anisotropic metamaterial (AMM) cladding was investigated. The proposed splitter structure inherits the properties of metal (Ag) and dielectric (Al2O3) mediums. The overall splitter performance was analyzed by evaluating the extinction ratio under different metal-dielectric concentrations in the AMM structure. For this purpose, the finite element method was used, and the splitting mechanism was analyzed by exploiting the coupled-mode theory. Also, the stability of splitter was tested under varying pitch values in the guide.

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**Title:** Adaptive neuro-fuzzy behavioral learning strategy for effective decision making in the fuzzy-based cloud service negotiation framework

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**Abstract:** Future cloud computing creates a new trend of opting service over the internet through some intelligent third-party broker. In cloud market, both consumer and provider compete with each other against the conflicting requirements, and the competition among cloud providers to trade their services to potential consumers of cloud market. There is an increasing need for automated negotiation framework to quickly reach agreement in competitive cloud market which can provide maximum utility value and success rate among the negotiating parties. Researchers develop various behavioral learning negotiation strategies (such as market driven) in the existing negotiation frameworks for maximizing either the choice of utility value or success rate of

parties. Moreover these strategies can be applicable to the environment, where the opponent's behaviors are predictable or precisely known. It may be daunting to apply in the dynamically varying competitive cloud market. So, the proposed Adaptive Neuro-Fuzzy Behavioral Learning (ANFBL) strategy can be applicable, where the opponent's behavior is partially and imprecisely known. Therefore, the proposed strategy can maximize both utility value and success rate without compromising either choice. An extensive simulation is conducted to evaluate the efficiency of strategies which shows that proposed strategy achieve higher utility and higher success rate than existing learning approach, without any negotiation conflict among the parties.

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**Title:** Transmittance spectrum in a 1D photonic crystal composed fused silica and sea water

**Author(s):** Segovia-Chaves, F (Segovia-Chaves, Francis); Vinck-Posada, H (Vinck-Posada, Herbert); Dhasarathan, V (Dhasarathan, Vigneswaran); Rajan, MSM (Rajan, M. S. Mani)

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Cited Reference Count: 42

**Abstract:** In this work, the simultaneous sensing process to detect the salinity and temperature for the given water samples using 1D photonic crystal (PC) periodic structure is numerically investigated. The sensing analytes is considered as defect mode and the whole structure is then tuned to observe the transmittance spectrum over the visible region for the different concentration and temperature of water samples. The observation point is noted as peak wavelength spectral shift over the visible region of band gap spectrum. As a simultaneous sensing process, the salinity concentration is detected for the constant temperature of water samples and salt content of samples kept as constant for detecting the temperature point.

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**Author Keywords:** Photonic crystal; Temperature; Salinity; Defect mode

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**Record 93 of 250**

**Title:** Performance Analysis in Digital Circuits for Process Corner Variations, Slew-Rate and Load Capacitance

**Author(s):** Udaiyakumar, R (Udaiyakumar, R.); Joseph, S (Joseph, Senoj); Sundararajan, TVP (Sundararajan, T. V. P.); Vigneswaran, D (Vigneswaran, D.); Maheswar, R (Maheswar, R.); Amiri, IS (Amiri, Iraj S.)

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**Cited References:** [Anonymous], 2004, BERK PRED TECHN MOD

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Cited Reference Count: 14

**Abstract:** The aggressive scaling of CMOS technology has inevitably led to vastly increased power dissipation, process variability and reliability degradation, posing tremendous challenges to robust circuit design. To continue the success of integrated circuits, advanced design research must start in parallel with or even ahead of technology development. In this paper, an attempt is made to analyze various circuits' delay and power performance by introducing certain level of variation to important process parameters like threshold voltage (V-th), mobility of carriers ((0)), oxide thickness (t(ox)) and doping concentration (n(sd)). Basic Monte Carlo simulation is carried out on these circuits to ascertain the stability in performances. A 16 x 1 multiplexer is considered for detailed analysis. SPICE characterization is done for three different input slew rates (0.1, 0.5 and 1ns) against four different output load drive strengths (1x, 2x, 3x and 4x output capacitive load). From the obtained results, output slew rates and average power results are observed and discussed.

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Title: High Step-Up Boost Converter with Neural Network Based MPPT Controller for a PEMFC Power Source Used in Vehicular Applications

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**Cited Reference Count:** 28

**Abstract:** High switching frequency and high voltage gain DC-DC boost converters are required for electric vehicles. In this paper, a new high step-up boost converter (HSBC) is designed for fuel cell electric vehicles (FCEV) applications. The designed converter provides the better high voltage gain compared to conventional boost converter and also reduces the input current ripples and voltage stress on power semiconductor switches. In addition to this, a neural network based maximum power point tracking (MPPT) controller is designed for the 1.26 kW proton exchange membrane fuel cell (PEMFC). Radial basis function network (RBFN) algorithm is used in the neural network controller to extract the maximum power from PEMFC at different temperature conditions. The performance analysis of the designed MPPT controller is analyzed and compared with a fuzzy logic controller (FLC) in MATLAB/Simulink environment.

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**Title:** Self Clock-Gating Scheme for Low Power Basic Logic Element Architecture

**Author(s):** Udaiyakumar, R (Udaiyakumar, R.); Joseph, S (Joseph, Senoj); Sundararajan, TVP (Sundararajan, T. V. P.); Vigneswaran, D (Vigneswaran, D.); Maheswar, R (Maheswar, R.); Amiri, IS (Amiri, Iraj S.)

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**Cited References:** Ahmed E., 2002, ACM SIGDA FPGA, P85

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**Cited Reference Count:** 11

**Abstract:** For field programmable gate arrays (FPGAs) to retain their semiconductor market and to be competitive as a choice for portable applications, the FPGA industry must adopt new techniques for dynamic and static power reduction. In this paper, a new scheme called 'self clock-gating' is introduced to reduce the dynamic power of basic logic elements. Circuits are designed using 16 nm Berkeley's Predictive technology model and tanner EDA tool is used for simulation. When we consider the average power, proposed architecture consumes 14% lesser than standard architecture. However, proposed architecture consumes only 6% of static power as that of standard architecture. If we consider the energy (power delay product), with the leakage reduction technique, the power delay product is 0.164 femto joules for the proposed architecture but in standard architecture, it is 0.200 femto joules.

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**Addresses:** [Udaiyakumar, R.; Joseph, Senoj; Vigneswaran, D.; Maheswar, R.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India. [Sundararajan, T. V. P.] Sri Shakthi Inst Engn & Technol, Dept ECE, Coimbatore, Tamil Nadu, India. [Amiri, Iraj S.] Ton Duc Thang Univ, Adv Inst Mat Sci, Computat Opt Res Grp, Ho Chi Minh City, Vietnam. [Amiri, Iraj S.] Ton Duc Thang Univ, Fac Appl Sci, Ho Chi Minh City, Vietnam.

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| Amiri, Iraj Sadegh       | C-2104-2017                 | 0000-0001-8121-012X |
| Ramamoorthy, Udaiyakumar | G-9796-2019                 | 0000-0003-1164-4883 |
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**Author(s):** Chelladurai, SJS (Chelladurai, Samson Jerold Samuel); Arthanari, R (Arthanari, Ramesh); Selvarajan, R (Selvarajan, Rohith); Kanagaraj, R (Kanagaraj, Ramakrishnan); Angappan, P (Angappan, Palanisamy)

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**Cited References:** Ahmad Z, 2001, J REINF PLAST COMP, V20, P921, DOI 10.1106/1AYB-P05C-3PTR-110Q  
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**Abstract:** Copper coated steel fibers reinforced LM13 aluminium alloy composites have been prepared using stir casting process. Experiments have been designed using response surface methodology by varying wt% of reinforcement (0-10), stirrer speed (350-800 rpm) and pouring temperature (700-800 degrees C). Microstructure, tensile strength and fracture surface of composites have been investigated. Analysis of variance, significance test and confirmation tests have been performed and regressions models have been developed to predict the tensile strength of composites. Response surface plots reveal that tensile strength of composites increases with increasing wt% of copper coated steel fibers reinforcement up to 6 wt%. Further increase in wt% of steel fibers decreases the tensile strength of composites. However tensile strength of composites increases with increasing stirrer speed due to the uniform and homogeneous dispersion of steel fibers in matrix. Optimum stir cast process parameters for obtaining higher tensile strength are found to be 5.9 wt% of reinforcement, 753 degrees C pouring temperature and stirrer speed of 633 rpm. Fracture mechanism is dominated by steel fiber pullouts in composites with higher wt% of reinforcement and dimples are observed in the surface of composites containing lower levels of wt% of reinforcement.

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**Title:** Efficient background subtraction for thermal images using reflectional symmetry pattern (RSP)

**Author(s):** Jeyabharathi, D (Jeyabharathi, D.); Dejeay (Dejeay)

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**Abstract:** Nowadays, thermal image processing has gained more attention. Thermal camera's cost is decreasing, and so many real-time applications use thermal cameras since they have an ability to detect objects in darkness and track objects in the video. A background subtraction approach using Reflectional Symmetry Pattern (RSP) for thermal image background subtraction is proposed based on the assumption that the geometric reflectional symmetrical pattern of each of the objects (person) is much lower than the surrounding background. Reflectional symmetrical texture pattern can be used to create a subspace from the result of frame differencing approach. Statistical parameters such as VP (Vector Product), VD (Vector Direction) can be used to create an accurate background model. As a result, the proposed scheme can provide a high precision and less error rate to meet the requirements of object detection from real-time thermal videos.

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**Author(s):** Suganya, R (Suganya, R.); Jayashree, LS (Jayashree, L. S.)

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**Abstract:** The choice of using the channel efficiently in mobile Ad hoc Networks is improved by creating multiple channel accessibility for attaining improved system functionality that depends on the metrics such as point to point delay, throughput and overhead. Most probably delivery of QoS (quality of service) hugely complicated in multiple channel ad hoc networks and the available adaptation and signaling methods for QoS, exist in literature survey primarily helps static-width channels or dynamic-width channels that limit the performance of a network. This Erlang Factor Integrated Channel Allocation Mechanism (EFICAM) model analyzes to improve ad hoc network's system functionality. EFICAM utilizes a combined scheme of availability and performance of the existing channel conditions through Erlang Factor that computes the rejection rate of the network. The decision on user request rejection rate depends upon the transmission delay and queuing delay by two thresholds like Channel Allocation Verge (CAV) and Estimated Channel Allocation Verge (ECAV). The QoS adjustments are achieved by EFICAM by calculating the delay in queue which helps in splitting the packet into smaller fragments for improving the level of QoS. This distributed approach refines the QoS by altering the channel sizes in a multiple channel ad-hoc networks that is constructed upon the EIT (Expected Transmission Time) routing parameter to meet the need of adaptability of bandwidth. The outcome investigation of EFICAM is done in an NS-2 simulator and the expected mechanism provides an enhancement of 17% and 21% with respect to throughput and packet delivery ratio respectively than the current QoS adaptation mechanisms exists in the literature. (C) 2017 Elsevier Ltd. All rights reserved.

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**Abstract:** Concrete usage in Construction becomes more common in this speedy world. Despite its benefits, concrete often exhibits crack which appear due to stresses. Larger cracks cause Structural integrity problems and smaller cracks may result in durability issues. A novel environmental friendly strategy to restore or remediate cracks formed in the structures is biomineralization of calcium carbonate using microbes such as Bacillus Subtilis (used in this study), as manual repair and maintenance is costly. In this Paper, an idea of using Super Absorbent Polymer in Bacterial Concrete was analysed which increases the strength and durability properties of concrete and also which acts as a protection to bacteria, where Self-Healing nature is viewed. In the span of 90 days, the results of Bacterial concrete cured under normal water providing nutrients inside with SAP shows healing up to 74 % and without SAP displays 49 % and when it is cured under nutrient medium, Bacterial Concrete having SAP displays healing up to 66 %, whereas without SAP it displays 57.4% of healing. During the observation it is discernible that the crack width ranging from 0.10 mm near 0.45 mm show better self-healing capacity. XRD analysis displays the presence of Calcium carbonate precipitation in cracks.

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**Conference Title:** International Conference on Advances in Materials and Manufacturing Applications (IConAMMA)

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**KeyWords Plus:** CONCRETE

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**Record 101 of 250****Title:** Preventable interaction of attosecond soliton in an inhomogeneous lossy fiber: Application to dispersion and nonlinearity management**Author(s):** Karthikeyaraj, G (Karthikeyaraj, G.); Udaiyakumar, R (Udaiyakumar, R.); Rajan, MSM (Rajan, M. S. Mani)**Source:** OPTIK **Volume:** 158 **Pages:** 753-761 **DOI:** 10.1016/j.ijleo.2017.12.188 **Published:** 2018**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 1**Usage Count (Last 180 days):** 2**Usage Count (Since 2013):** 7**Cited References:** Abdullaev F., 1991, OPTICAL SOLITONS

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**Abstract:** In this paper, inhomogeneous sixth order nonlinear Schrodinger equation with variable dispersion, nonlinearity and loss/gain is considered which describes the propagation of attosecond soliton in an inhomogeneous nonlinear fiber medium. Multi-soliton solutions are obtained by the Darboux transformation technique based on the newly constructed Lax pair. In order to study the impact of variable coefficients on soliton dynamics in an inhomogeneous fiber, various forms of inhomogeneous profiles for variable coefficients are considered. By symbolic computation, characteristics of these coefficients are discussed including the soliton amplification, soliton compression, boomerang soliton and breathing soliton. We further discuss the preventable interaction between the attosecond solitons which are attained through manipulating the control parameters in various inhomogeneous functions. Our results may be useful for the experimental control and manipulation of the attosecond soliton in inhomogeneous optical fiber system. (C) 2018 Elsevier GmbH. All rights reserved.

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**KeyWords Plus:** SCHRODINGER-EQUATION MODEL; NONAUTONOMOUS SOLITONS; OPTICAL-FIBER; VARIABLE-COEFFICIENTS; VARYING DISPERSION; PHASE MODULATION; ROGUE WAVES; SYSTEMS; AMPLIFICATION; COMPRESSION

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**Record 102 of 250**

**Title:** VSMART - A Simulation Tool for Performance Analysis of Wireless Sensor Node using Queue Threshold

**Author(s):** Maheswar, R (Maheswar, R.); Jayarajan, P (Jayarajan, P.); Vigneswaran, D (Vigneswaran, D.); Udaiyakumar, R (Udaiyakumar, R.); Theepak, CG (Theepak, C. G.); Amiri, IS (Amiri, Iraj S.)

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**Cited Reference Count:** 9

**Abstract:** An energy minimization technique based on queue threshold is an existing model which is widely used technique for delay insensitive WSN applications to prolong the network lifetime. This paper proposes a new simulation tool VSMART based on queue threshold which is used to analyze the various performance parameters such as mean delay, average energy consumption and so on. VSMART is a Graphical User Interface (GUI) based tool that eases the user to analyze and measure the performance of a wireless sensor node

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**Conference Sponsors:** IEEE, IEEE MAS Sect, APEC

**Conference Host:** Adhiparasakthi Engr Coll

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**Title:** Combined influence of third order dispersion (TOD) and intra-pulse Raman scattering (IRS) on initially phase imparted solitons  
**Author(s):** Udaiyakumar, R (Udaiyakumar, R.); Vijayakumari, P (Vijayakumari, P.); Rajan, MSM (Rajan, M. S. Mani); Mani, B (Mani, Bhupeshwaran)  
**Source:** OPTIK **Volume:** 164 **Pages:** 45-53 **DOI:** 10.1016/j.ijleo.2018.02.041 **Published:** 2018  
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**Usage Count (Last 180 days):** 0  
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Cited Reference Count: 25

**Abstract:** The temporal shifts caused by the combined influence of Third Order Dispersion (TOD) and Intra-pulse Raman scattering (IRS) on initially phase imparted soliton pulses is demonstrated analytically and numerically. Further the effects are realized in a 160 Gbps, single channel telecommunication system. The phase (Psi) characteristics of soliton with respect to initial relative spacing (q(o)) is governed by Perturbative equation while the temporal shift under the influence of Third Order Dispersion and Intra-pulse Raman scattering is noted by Moment equation. By combining the Perturbative and Moment equations, the temporal shift under the combined effects is noted analytically. Also the similar effect is noted numerically by using the Split-Step Fourier transform (SSFT) to support analytics. The temporal shift at the interaction point (where two in-phase soliton interacts) using analytical and numerical method is characterized by the 'Spacing between the solitons' in terms of picoseconds. It could be realized by both analytical and numerical methods that the Intra-pulse Raman scattering is more dominant over third order dispersion in shifting the soliton pulses temporally with respect to distance. Apart from analytical and numerical approached, the shift of soliton pulses under the combined effect is realized in telecommunication system and the performance is noted using the Q-value and Time domain analyzer view. (C) 2018 Elsevier GmbH. All rights reserved.

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**Document Type:** Article  
**Author Keywords:** Third order dispersion; Optical solitons; Interapulse Raman scattering; Split-step fourier transform  
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**Record 104 of 250****Title:** REMOTE PRESCRIPTION AND I-HOME HEALTHCARE BASED ON IoT**Author(s):** Lavanya, S (Lavanya, S.); Lavanya, G (Lavanya, G.); Divyabharathi, J (Divyabharathi, J.)**Edited by:** Porkumaran K; Prabakar S; Jaganathan S**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON INNOVATIONS IN GREEN ENERGY AND HEALTHCARE TECHNOLOGIES (IGEHT) **Published:** 2017**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 1**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Alemdar H, 2010, COMPUT NETW, V54, P2688, DOI 10.1016/j.comnet.2010.05.003

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**Cited Reference Count:** 8

**Abstract:** The design and implementation of an IOT-based health monitoring system is for emergency medical services which can demonstrate collection, integration, and interoperation of IoT leads to data flexibly which can provide support to emergency medical services, using a Raspberry pi board. The proposed model enables patients to improve health related risks and reduce healthcare costs by recording, collecting, analyzing and sharing large data streams in real time and efficiently. The idea of this project is to reduce the headache of patient to visit to doctor every time he need to check his heart beat rate. With the help of this proposal the time of both patients and doctors are saved and doctors can also help in emergency scenario as much as possible and we propose a medical box. It will helps to doctors and family members to Checking whether they are following their prescribed treatment on time by Real Time Clock (RTC), sensors and RFID tags, which are connected to the raspberry and sends SMS to the patients and their corresponding doctors and family members if there is any abnormal behavior occurred. It will Improve the user experience and service efficiency. The proposed outcome of the project is to give proper and efficient medical services to patients by connecting and collecting data information through health and medication status stored on cloud.

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**Reprint Address:** Lavanya, S (reprint author), Anna Univ Reg Campus, Dept CSE, Coimbatore, Tamil Nadu, India.**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Green & Sustainable Science & Technology; Engineering, Biomedical; Engineering, Electrical & Electronic; Public, Environmental & Occupational Health**Research Areas:** Science & Technology - Other Topics; Engineering; Public, Environmental & Occupational Health**IDS Number:** BJ5GJ**ISBN:** 978-1-5090-5778-8**Source Item Page Count:** 3**Output Date:** 2020-01-07**Record 105 of 250****Title:** Investigate safety and quality performance at construction site using artificial neural network**Author(s):** Murugan, SB (Murugan, S. Bala); Sundar, ML (Sundar, M. Lenin)**Source:** JOURNAL OF INTELLIGENT & FUZZY SYSTEMS **Volume:** 33 **Issue:** 4 **Pages:** 2211-2222 **DOI:** 10.3233/JIFS-16497 **Published:** 2017**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 1**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 8**Cited References:** Albert A, 2013, SAFETY SCI, V51, P118, DOI 10.1016/j.ssci.2012.06.011

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Cited Reference Count: 24

**Abstract:** Quality inference of a construction project agenda might be an exigent task for project stakeholders. Construction superintendent is decisive to eventual site security performance. In the United States, the OSHA 30-hour training is becoming the de facto standard for supervisor security competency. We concentrate on gap by recognizing the essential knowledge-based security competencies that are most important for the front-line construction supervisor and precedence them for the first time. The intention of the work is to frame an Artificial Neural Network (ANN) with the assist of the optimization techniques. The ANN is utilized to predict the number of rework Work-hrs per \$1M in Scope, a number of rework workers (works)-hrs per 200,000 weeks hrs, the number of defects per \$1M in Scope and number of defects per 200,000 Work-hr parameters of the construction safety. Different optimization techniques are utilized to discover an optimal weight of the ANN process. All the optimum results demonstrate that the attained error values between the output of the experimental values and the predicted values are closely equal to zero in the designed network. From the results, the minimum error of 89.97% determined by the ANN is attained by the Grey Wolf Optimization (GWO) algorithm.

Accession Number: WOS:000411449700019

Language: English

Document Type: Article

Author Keywords: Construction safety; quality; injuries; Artificial Neural Network (ANN); Grey Wolf Optimization (GWO)

KeyWords Plus: MANAGEMENT; IMPLEMENTATION; DESIGN; SYSTEM

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Publisher: IOS PRESS

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Web of Science Categories: Computer Science, Artificial Intelligence

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ISO Source Abbrev.: J. Intell. Fuzzy Syst.

Source Item Page Count: 12

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Record 106 of 250

Title: Rainfall variation and frequency analysis study in Dharmapuri district, India

Author(s): Rajendran, V (Rajendran, V.); Venkatasubramani, R (Venkatasubramani, R.); Vijayakumar, G (Vijayakumar, G.)

Source: INDIAN JOURNAL OF GEO-MARINE SCIENCES Volume: 45 Issue: 11 Pages: 1560-1565 Published: NOV 2016

Times Cited in Web of Science Core Collection: 1

Total Times Cited: 1

Usage Count (Last 180 days): 0

Usage Count (Since 2013): 1

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Cited Reference Count: 11

**Abstract:** Thirty two years (1982-2013) daily rainfall data for Dharmapuri District was collected from the TWAD (Tamil Nadu Water Supply and Drainage Board) to analyse the nature of distribution and frequency of rainfall. Average annual rainfall for 32 years data was calculated as 938.1 mm and average annual rainy days were 45.9. Maximum monthly rainfall (197.58 mm) was received during the month of September which was mostly by southwest monsoon. Maximum

rainy days were in October (8.6 days). The rainfall received during the winter, summer, southwest and northeast monsoon seasons were 10.5, 181.0, 453.5, 293.0 mm, respectively. Rainfall frequency analysis done by Weibull's method revealed that the annual average rainfall of 938.1 mm can be expected to occur once in 2.5 years at a probability of 40 %. Monthly dependable rainfall ( $p > 75\%$ ) is expected to occur in every year during the months from September to October.

**Accession Number:** WOS:000389787100022

**Language:** English

**Document Type:** Article

**Author Keywords:** Rainfall distribution; Weibull distribution; Seasonal rainfall: Rainy days; Frequency analysis

**Addresses:** [Rajendran, V.] Kathir Coll Engr, Dept Civil Engr, Coimbatore 641062, Tamil Nadu, India.

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**Publisher:** NATL INST SCIENCE COMMUNICATION-NISCAIR

**Publisher Address:** DR K S KRISHNAN MARG, PUSA CAMPUS, NEW DELHI 110 012, INDIA

**Web of Science Categories:** Oceanography

**Research Areas:** Oceanography

**IDS Number:** EE7HS

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**ISO Source Abbrev.:** Indian J. Geo-Mar. Sci.

**Source Item Page Count:** 6

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#### Record 107 of 250

**Title:** THE EFFECT OF PARTICLE HYBRIDIZATION ON MICRO STRUCTURE ANALYSIS AND MECHANICAL BEHAVIOR OF METAL MATRIX COMPOSITES: AN EXPERIMENTAL APPROACH

**Author(s):** Pridhar, T (Pridhar, T.); Sankaran, RA (Sankaran, R. A.); Ravikumar, K (Ravikumar, K.); Boopathi, C (Boopathi, C.)

**Source:** DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES **Volume:** 11 **Issue:** 3 **Pages:** 845-852 **Published:** JUL-SEP 2016

**Times Cited in Web of Science Core Collection:** 1

**Total Times Cited:** 1

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 1

**Cited References:** Baradeswaran A, 2014, COMPOS PART B-ENG, V56, P464, DOI 10.1016/j.compositesb.2013.08.013

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**Cited Reference Count:** 16

**Abstract:** Mechanical and physical performance of alumina and boron carbide particulate filled reinforcement with Al7075 matrix prepared by stir casting techniques were investigated experimentally. The composite comprises of the base matrix Al7075 with various concentration of two particle reinforcements named alumina (Al<sub>2</sub>O<sub>3</sub>) and boron carbide (B<sub>4</sub>C). In that one of the particle reinforcement alumina has various altitude of 2,4,6,8 and 10 wt% and other one boron carbide has 5 wt% kept as constant for all specimens. The specimens were prepared by stir casting techniques to preserve the perfect dispersion of particulate reinforcement in final fabricated composites. The influence of alumina and boron carbide particulate in final composites were analyzed by examining the mechanical properties such as tensile behavior and hardness of composites. To study the micro structure and dispersion of particle reinforcements, the alumina and boron carbide particulate dispersion was evidently exposed by scanning electronmicroscopy (SEM) techniques and XRD techniques. The result shows addition of particulates directly increases the hardness and density of composites. In the same way result exposes mechanical behavior of tensile property also increased with addition of filler reinforcements.

**Accession Number:** WOS:000383509500017

**Language:** English

**Document Type:** Article

**Author Keywords:** Al 7075; Alumina; Boron carbide; Mechanical properties; Stir casting; Micro structure

**KeyWords Plus:** HYBRID COMPOSITES; WEAR PROPERTIES

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| Author               | Web of Science ResearcherID | ORCID Number |
|----------------------|-----------------------------|--------------|
| Thiagarajan, Pridhar | AAD-5680-2019               |              |

**Publisher:** INST MATERIALS PHYSICS

**Publisher Address:** NATL INST R&D MATERIALS PHYSICS, ATOMISTILOR STR, 105 BIS, BUCHAREST, 077125, ROMANIA

**Web of Science Categories:** Nanoscience & Nanotechnology; Materials Science, Multidisciplinary

**Research Areas:** Science & Technology - Other Topics; Materials Science

**IDS Number:** DW2YU

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**ISO Source Abbrev.:** Dig. J. Nanomater. Biostruct.

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#### Record 108 of 250

**Title:** THESIS PROPOSAL SUMMARY: Key Management Authentication and Non repudiation for Information Transaction in Vehicular Cloud Environments

**Author(s):** Hegde, N (Hegde, Nayana); Manvi, SS (Manvi, Sunilkumar S.)

**Book Group Author(s):** IEEE

**Source:** 2016 IEEE INTERNATIONAL CONFERENCE ON CLOUD COMPUTING IN EMERGING MARKETS (CCEM) **Book Series:** IEEE International Conference on Cloud Computing in Emerging Markets **Pages:** 157-160 **DOI:** 10.1109/CCEM.2016.36 **Published:** 2016

**Times Cited in Web of Science Core Collection:** 1

**Total Times Cited:** 1

**Usage Count (Last 180 days):** 1

**Usage Count (Since 2013):** 6

**Cited References:** Armbrust M, 2010, COMMUN ACM, V53, P50, DOI 10.1145/1721654.1721672

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**Cited Reference Count:** 22

**Abstract:** Vehicular Cloud Computing (VCC) is the latest technology in intelligent transport system. Vehicular cloud (VC) facilitates the customers to share underutilized resources by renting it to other users over the Internet. It aims to improve travelling beyond the boundaries of traditional transport systems. VCC has many advanced applications which will help society with minimum cost of investment and less maintenance. Security and privacy is very important issue for every VCC application. Research proposal highlights a cost effective, hassle free and secure communication between the cloud and moving vehicles. Security of VANET cloud covers the challenges, requirements, threats and authentication mechanisms which are very specific to connected high speed vehicles. The complexity of short range communication and location identities are important aspects in VCC security. We have considered Storage as a Service (SaaS) for our work. The security challenges are addressed with the help of cryptographic algorithms like Elliptical Curve Cryptography (ECC). For sharing secured data, access controlled with the help of Attribute Based Encryption (ABE). Implementation methodologies and performance measures are discussed for the proposed scheme.

**Accession Number:** WOS:000393584400026

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th IEEE International Conference on Cloud Computing in Emerging Markets (CCEM)

**Conference Date:** OCT 19-21, 2016

**Conference Location:** Bangalore, INDIA

**Conference Sponsors:** IEEE, IEEE Comp Soc, IEEE Bangalore Sect, Serv Comp, IBM, PHILIPS, AVAYA, CDAC, IEEE Stand Assoc, vmware

**Author Keywords:** Vehicular Cloud; Cloud Computing; Mobile Cloud; Security; ECC; ABE

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BG9QC**ISSN:** 2375-8260**ISBN:** 978-1-5090-4573-0**29-char Source Abbrev.:** IEEE CONF CLOUD COMP**Source Item Page Count:** 4**Output Date:** 2020-01-07**Record 109 of 250****Title:** Hough Transform-Based Feature Extraction for the Classification of Mammogram Using Back Propagation Neural Network**Author(s):** Ponraj, N (Ponraj, Narain); Poongodi (Poongodi); Mercy, M (Mercy, Merlin)**Edited by:** Pant M; Deep K; Bansal JC; Nagar A; Das KN**Source:** PROCEEDINGS OF FIFTH INTERNATIONAL CONFERENCE ON SOFT COMPUTING FOR PROBLEM SOLVING (SOCPROS 2015), VOL 2 **Book Series:** Advances in Intelligent Systems and Computing **Volume:** 437 **Pages:** 239-247 **DOI:** 10.1007/978-981-10-0451-3\_23 **Published:** 2016**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 1**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Aggarwal N, 2006, IEEE T IMAGE PROCESS, V15, P582, DOI 10.1109/TIP.2005.863021

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**Cited Reference Count:** 11**Abstract:** Breast cancer is one of the significant health problems in the world. Early detection can improve the patient recover rate. Mammography is one of the most effective methods for detecting and screening breast cancer. This paper presents Hough transform-based feature extraction method for the classification of mammograms. Hough transform is generally used to separate certain features according to a defined shape within an image. Here, Hough transform is used to detect features of mammogram image and it is classified using back propagation neural network. This method is tested on 208 mammogram images provided by MIAS.**Accession Number:** WOS:000385787900023**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Soft Computing for Problem Solving (SocProS)**Conference Date:** DEC 18-20, 2015**Conference Location:** Roorkee, INDIA**Author Keywords:** Hough transform; Breast cancer; SVM classifier; Back propagation neural network**Addresses:** [Ponraj, Narain] Karunya Univ, Coimbatore, Tamil Nadu, India.

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|----------------|-----------------------------|---------------------|
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**Publisher:** SPRINGER-VERLAG BERLIN**Publisher Address:** HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY**Web of Science Categories:** Computer Science, Artificial Intelligence; Computer Science, Theory & Methods**Research Areas:** Computer Science**IDS Number:** BF9NH**ISSN:** 2194-5357**ISBN:** 978-981-10-0451-3; 978-981-10-0450-6**29-char Source Abbrev.:** ADV INTELL SYST**Source Item Page Count:** 9**Output Date:** 2020-01-07**Record 110 of 250****Title:** Uncited Publications in MEMS Literature: A Bibliometric Study**Author(s):** Gopalakrishnan, S (Gopalakrishnan, S.); Bathrinarayanan, AL (Bathrinarayanan, A. L.); Tamizhchelvan, M (Tamizhchelvan, M.)**Source:** DESIDOC JOURNAL OF LIBRARY & INFORMATION TECHNOLOGY **Volume:** 35 **Issue:** 2 **Pages:** 113-123 **DOI:** 10.14429/djlit.35.2.8324 **Published:** MAR 2015**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 2**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 1**Cited References:** Ayanguasgil, 2013, MUS UNC ART DARK MAT

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**Cited Reference Count:** 16

**Abstract:** In this paper attempt has been made to identify the uncited publications in 'micro-electro mechanical systems (MEMS) literature which is one of the emerging field in electronics. The search term 'MEMS' was used for retrieving literatures from SCOPUS database. A total of 294573 records were identified in the field of MEMS during the period 1970-2013. Out of which, 85146 (28.90 %) records were uncited publications. The uncited paper ranges between 0.09 % and 0.72 %. It can be seen that from 1988 onwards uncitedness has been reduced below the global average and it persists till 2010. Almost 56 % of the uncited publications are from the conference proceedings. 44.56% of China publications in MEMS were uncited followed by India (31.44 %), Japan (24.40 %), and France (19.44 %). Majority of the uncited publications, are of collaborative authors besides the self-citations. Mostly more than four authors' papers were uncited. Even top author papers were also uncited. The uncitedness may be due to non-awareness of those papers in the MEMS literature.

**Accession Number:** WOS:000381868700006

**Language:** English

**Document Type:** Article

**Author Keywords:** uncitedness; citation analysis; bibliometrics study; MEMS literature; uncited publications; scientific output

**KeyWords Plus:** ARTICLES

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| Mottaiya Chettiar, Tamizhchelvan | C-2299-2016                 | 0000-0002-9866-6454 |

**Publisher:** DEFENCE SCIENTIFIC INFORMATION DOCUMENTATION CENTRE

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**Web of Science Categories:** Information Science & Library Science

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**IDS Number:** DU0CK

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**29-char Source Abbrev.:** DESIDOC J LIB INF TE

**ISO Source Abbrev.:** DESIDOC J. Lib. Inf. Technol.

**Source Item Page Count:** 11

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**Record 111 of 250**

**Title:** On-line Economic Dispatch of Distributed Generation Using Artificial Neural Networks

**Author(s):** Babu, MA (Babu, M. Arumuga); Mahalakshmi, R (Mahalakshmi, R.); Kannan, S (Kannan, S.); Karuppasamypandiyan, M (Karuppasamypandiyan, M.); Bhuvanesh, A (Bhuvanesh, A.)

**Edited by:** Panigrahi BK; Suganthan PN; Das S

**Source:** SWARM, EVOLUTIONARY, AND MEMETIC COMPUTING, SEMCCO 2014 **Book Series:** Lecture Notes in Computer Science **Volume:** 8947 **Pages:** 275-283 **DOI:** 10.1007/978-3-319-20294-5\_24 **Published:** 2015

**Times Cited in Web of Science Core Collection:** 1

**Total Times Cited:** 1

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Basu M, 2013, ENERGY, V60, P99, DOI 10.1016/j.energy.2013.07.011

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**Cited Reference Count: 11**

**Abstract:** In recent years, distributed generators (DG) are most widely installed in distribution system to meet the increasing demand and especially to reduce the losses. According to demand, dispatch of generator should be modified for economic operation. The Economic Dispatch (ED) of DGs are usually solved by conventional methods such as Lambda iteration method, Dynamic Programming etc., or any optimization technique such as Genetic algorithm (GA), Evolutionary Programming (EP) etc., This off-line methods of solving ED problem require comparatively large computation time and are not suitable for on-line applications. Therefore, it is important to estimate Real Power dispatch values within a short period. This paper presents an On-line ED of various non-renewable DGs for various demands using Artificial Neural Networks namely Back Propagation Neural Network (BPNN) and Radial Basis Function Neural Network (RBFNN). The input pattern for Neural Networks (NN) is demand and output is corresponding optimal real power dispatch. The input and output patterns for NN is obtained using evolutionary programming method. In this work two diesel engines and two fuel cells are used as DG. This case study has been illustrated in a distribution system having two types of four numbers of DGs. The test result shows that the proposed method is better for real time ED.

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**Title:** DISTRIBUTION OF ELEMENTAL MERCURY IN SATURATED POROUS MEDIA

**Author(s):** Devasena, M (Devasena, M.); Nambi, IM (Nambi, Indumathi M.)

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Cited Reference Count: 31

**Abstract:** Elemental mercury (Hg-0) is often found in the vicinity of industrial facilities such as chlor alkali plants, thermometer manufacturing units, and pharmaceutical industries. During accidental land spills or improper disposals of used Hg-0, it penetrates into the subsurface and gets entrapped in the available pore spaces. Once Hg-0 is entrapped in the subsurface as residual blobs, it would be subjected to biochemical transformations and be converted to other toxic forms of mercury. A significant lacuna prevails in addressing Hg-0 contamination and remediation which is dominated by pore scale processes in the subsurface. In this study, a series of experiments was performed to characterize the morphological distribution of Hg-0 at its residual saturation as a function of capillary number (N-C). An initially water-saturated micromodel was flooded with Hg-0 at a prescribed rate to simulate the migration of Hg-0 into the saturated zone. Then Hg-0 was displaced by water flooding and finally residual Hg-0 was established at different N-C. Images taken during the experiment were processed to generate residual Hg-0 saturation, size, shape, and interfacial area. Residual Hg-0 ranged from small spherical blobs to large complex blobs and was found to have an inverse relationship with N-C. The results obtained in this study would serve as fundamental parameters for evaluating relationship amongst residual mercury saturation, interfacial area, and ground water flow in mercury-contaminated sites.

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Author(s): Madhavan, P (Madhavan, P.); Malathi, P (Malathi, P.); Abinaya, R (Abinaya, R.)

Edited by: Suresh LP; Dash SS; Panigrahi BK

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Cited Reference Count: 9

**Abstract:** Ad hoc networks are new paradigm of wireless communication for mobile host. Owing to vulnerable nature of mobile ad hoc network (MANET), there are numerous security threats that disturb the development of MANET. In order to overcome such threats, an efficient anonymous routing protocol for MANETs is proposed. For this, secure neighbor should be discovered. After finding the secure neighbors, neighbors are clustered to form zones. For each

group of clusters, cluster head (CH) is associated. Instead of sending the route request message to every neighbor nodes, the route request message would be send only to the CH. The CH would decide which all nodes should participate in the routing. The overhead for sending messages gets reduced as the number of route request messages (RREQ) sent is minimum. Among the different paths in the clusters, the shortest path will be determined. This protocol guarantees the security, anonymity, and high reliability of an established route.

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**Author Keywords:** Cluster; Mobile ad hoc network; Anonymous routing; Secure routing; Privacy preservation; Shortest path

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**Title:** EC-STCRA: Energy Conserved - Supervised Termite Colony based Role Assignment scheme for Wireless Sensor Networks

**Author(s):** Rajarajeswari, PL (Rajarajeswari, P. L.); Karthikeyan, NK (Karthikeyan, N. K.); Priya, MD (Priya, Deva M.)

**Edited by:** Soni AK; Lobiyal DK

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**Abstract:** Conserving energy and ensuring security are the main challenges of Wireless sensor Networks (WSNs). Energy at the sensors must be preserved to increase the lifetime of the network. Clustering helps in reducing the number of transmissions between the Cluster Head (CH) and the Base Station (BS). In this paper, an Energy Conserved - Supervised Termite Colony based Role Assignment (EC-STCRA) scheme is proposed to conserve energy. The network is trained to provide better performance by incorporating efficient clustering, routing and security schemes. The CHs are randomly selected, and the soldier and the worker nodes are appointed based on their location and Residual Energy (RE). Efficient paths to the BS are found by selecting the worker nodes with high RE. The soldiers protect the network from attacks like Denial of Service (DoS), flooding and spoofing by maintaining an Active List (AL) of reliable nodes along with a Warning List (WL) and a Dead List (DL) of malicious nodes. EC-STCRA outperforms the existing Genetic algorithm (GA) and Ant Colony Optimization (ACO) based clustering and routing schemes in terms of Packet Delivery Ratio (PDR), Packet Loss Ratio (PLR), throughput, delay, Residual Energy (RE) and network lifetime.

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Author(s): Shanthakumar, DS (Shanthakumar, D. Santhosh); Sivasankar, BN (Sivasankar, B. N.)

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**Cited Reference Count: 28**

**Abstract:** bis-Hydrazine metal(II) m-nitrobenzoates,  $[M(m\text{-NO}_2\text{C}_6\text{H}_4\text{COO})(2)(\text{N}_2\text{H}_4)(2)]$ , where M = Co, Ni, Zn or Cd have been prepared by stoichiometric reaction between: the aqueous solution of respective metal nitrate hydrate With aqueous solution: containing a mixture of m-nitrobenzoic acid and hydrazine hydrate in appropriate ratio. These complexes have been characterised by analytical, spectral, thermal and X-ray powder diffraction studies. The IR spectra indicate the bridging bidentate nature of hydrazine moieties and monodentate nature, of carboxylate ions. All these complexes except zinc complex undergo one step, decomposition to yield respective metal oxide as the final product However the zinc complex undergoes dehydrazination in the first step followed by ligand: pyrolysis to give ZnO as the final residue. X-ray powder diffraction patterns indicate that the complexes are isomorphous. The mixed metal complexes,  $[\text{M}_1/3\text{Co}_2/3\text{ m-NO}_2\text{C}_6\text{H}_4\text{COO})(2)(\text{N}_2\text{H}_4)(2)]$  have also been prepared using aqueous solution containing a mixture of metal nitrate hydrates and cobalt nitrate hexahydrate in 1:2 ratio instead of metal nitrate hydrate. These complexes on thermal degradation yield respective metal cobaltites as the final product. The formations of these cobaltites were confirmed by chemical analysis, IR spectra and X-ray powder diffraction studies.

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**Record 116 of 250**

**Title:** Asymmetric SVM Technique for Minimizing Switching Loss of Inverter

**Author(s):** Kumar, SN (Kumar, S. Nanda); Vijayan, S (Vijayan, S.); Kumar, EN (Kumar, E. Nanda)

**Source:** ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING **Volume:** 39 **Issue:** 4 **Pages:** 3123-3136 **DOI:** 10.1007/s13369-014-0956-3 **Published:** APR 2014

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**Cited Reference Count:** 31

**Abstract:** In power electronics, the pulse width modulation (PWM) inverter is one of the families of electrical circuits that converts the electrical supply from one level to another using semiconductor-based electronic switches. The important characteristic of these types of circuits is that the switches are operated only in one of two states: ON or OFF. The continuous conduction operations of these transitions cause switching power losses, which lead to power loss in PWM inverter. The purpose of the switch is to assist the process of transferring power from source to load. So, these power losses affect the performance and efficiency of the load. To overcome these problems, in this paper, asymmetric space vector pulse width modulation (ASVPWM) technique is proposed. In the proposed ASVM, the additional voltage sectors' switching states are determined by state transition matrix. Subsequently, using the proposed technique, the speed of the induction motor (IM) is controlled. The error speed and change of error speed of an IM are calculated using a fuzzy logic controller (FLC). The output of FLC is applied to the ASVPWM inverter and the stability of the IM is improved. Then, the switching loss and harmonics effect of the proposed ASVPWM inverter are analyzed.

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**Author Keywords:** PWM inverter; ASVM; IM speed; FLC; State transition matrix; Switching loss and harmonics

**KeyWords Plus:** SPACE-VECTOR PWM; CONTROLLER

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#### Record 117 of 250

**Title:** An FPGA Task Placement Algorithm Using Reflected Binary Gray Space Filling Curve

**Author(s):** Olakkenghil, SJ (Olakkenghil, Senoj Joseph); Baskaran, K (Baskaran, K.)

**Source:** INTERNATIONAL JOURNAL OF RECONFIGURABLE COMPUTING **Article Number:** 495080 **DOI:** 10.1155/2014/495080 **Published:** 2014

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Cited Reference Count: 29

**Abstract:** With the arrival of partial reconfiguration technology, modern FPGAs support tasks that can be loaded in (removed from) the FPGA individually without interrupting other tasks already running on the same FPGA. Many online task placement algorithms designed for such partially reconfigurable systems have been proposed to provide efficient and fast task placement. A new approach for online placement of modules on reconfigurable devices, by managing the free space using a run-length based representation. This representation allows the algorithm to insert or delete tasks quickly and also to calculate the fragmentation easily. In the proposed FPGA model, the CLBs are numbered according to reflected binary gray space filling curve model. The search algorithm will quickly identify a placement for the incoming task based on first fit mode or a fragmentation aware best fit mode. Simulation experiments indicate that the proposed techniques result in a low ratio of task rejection and high FPGA utilization compared to existing techniques.

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Record 118 of 250

**Title:** Durability Studies on Fly Ash Based Geopolymer Mortar Under in Ambient Curing Condition

**Author(s):** Sreevidya, V (Sreevidya, V.); Anuradha, R (Anuradha, R.); Thomas, T (Thomas, Tini); Venkatasubramani, R (Venkatasubramani, R.)

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**Cited Reference Count:** 5

**Abstract:** Present paper reports the experimental results of a study conducted to assess the durability of fly ash based geopolymer mortar in adverse environments In this study, sodium hydroxide and sodium silicate solution were used as alkaline activators, The ratios between solution (NaOH, Na2SiO3 solution and water) to fly ash were 0.376, 0.386, 0.396 and 0.416 by weight. Geopolymer mortar cube specimens of 50 mm x 50 mm x 50 mm were cast with a ratio of fly ash to sand as 1:2.5 by weight. The binder solution consists of a combination of sodium hydroxide and sodium silicate solution in the ratio of 1:2.5. The cubes were cured in ambient condition. The various durability tests like saturated water absorption and acid resistance against 5 % HCl and 5 % HNO3 were performed on these specimens. The compressive strength After acid resistance was found out and Compared with the compressive strength obtained at 28 days. The results obtained from this study indicated that the geopolymer mortar specimens are highly resistant to acids.

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**Author Keywords:** Compressive strength; Durability; Fly ash; Geopolymer mortar; Resistance; Weight loss

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#### Record 119 of 250

**Title:** Fusion Based Denoise-Engine for Underwater Images using Curvelet Transform

**Author(s):** Shanmugasundaram, M (Shanmugasundaram, M.); Sukumaran, S (Sukumaran, S.); Shanmugavadivu, N (Shanmugavadivu, N.)

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**Cited Reference Count:** 13

**Abstract:** a novel image de-noising algorithm is proposed, which utilizes the effective benefits of curvelet and fusion techniques to improve the quality of underwater images. With the help of this algorithm, the de-noised image is obtained by merging two intermediate images of the same. In this framework, the input noise image is simultaneously fed into gaussian filter and curvelet transform. The first output image is obtained by filtering the image with Gaussian. The second output image is obtained by denoising it with curvelet transform. Experimental results show that the PSNR and MSE ratio is substantially improved by the proposed method. This method is efficient at de-noising while saving edges and textures in underwater images.

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**Document Type:** Proceedings Paper

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**Conference Sponsors:** IEEE Commun Soc, IEEE, InderSci, ISCA, INNS India Reg Chapter, ICACCI, Hochschule Offenburg Univ Appl Sci, Res Publishing

**Conference Host:** Sri Jayachamarajendra Coll Engr

**Author Keywords:** Curvelet; underwater image; image fusion; edge preserve; texture retrieve; denoise

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**Publisher:** IEEE

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#### Record 120 of 250

**Title:** Whether big deals are really big for engineering college libraries?

**Author(s):** Nagaraja, A (Nagaraja, Aragudige); Gangadhar, KC (Gangadhar, K. C.); Vasanthakumar, M (Vasanthakumar, M.)

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Tenopir C., 2011, NEW REV INFORM NETWO, V16, P4, DOI DOI 10.1080/13614576.2011.566796

**Cited Reference Count:** 13

**Abstract:** Purpose - Library consortia have played a vital role in sharing information resources among participating libraries. In India, engineering college libraries subscribe to many electronic resources through the Indian Digital Library of Engineering Science and Technology (INDEST) consortium. This paper aims to identify the collection development of electronic resources through INDEST to predict the most required and useful model for engineering colleges. Design/methodology/approach - The list of colleges that subscribe to electronic resources through INDEST was studied online and analyzed. Findings - It is evident that most colleges only subscribed IEL online through INDEST. Some colleges have subscribed to different resources from more than one publisher. The bundles of resources subscribed through INDEST have not fully supported all the courses offered by the institutions. It is revealed that the bibliographical databases for searching the literature in technological sciences were not subscribed to by any colleges participating in INDEST. Originality/value - The results of this study are useful for engineering college libraries to develop the collection of online journals in the digital era.

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**Title:** Theoretical studies of hybrid multifunctional  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  photonic crystals within visible and infra-red regions

**Author(s):** Aly, AH (Aly, Arafa H.); Ghany, SESA (Ghany, S. E. -S. Abdel); Kamal, BM (Kamal, B. M.); Vigneswaran, D (Vigneswaran, D.)

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**Abstract:** In this paper, the optical spectra of one-dimensional photonic crystal (PCs) are numerically investigated in UV, Visible and Infrared ranges. PCs consisting of a HTc superconducting material (YBa(2)Cu(3)O(7)) are sandwiched between dielectric layer (SiO2 or AlN) and semiconductor layer (GaAs), where superconducting layer is considered as defects. Using transfer matrix method, all the numerical results are performed and inferred that photonic band gap shifted to higher wavelengths by increasing the temperature. It is found that when the temperature increases the PBG shifted to a long wavelength. When the defect is used in structure as dielectric or superconductor, the peak appears in PBG and his value increases as the temperature increases.

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**Record 122 of 250**

**Title:** A Novel Security and Energy Efficient Data Aggregation for Medical Internet of Things Using Trust

**Author(s):** Nandhini, AS (Nandhini, A. Sunitha); Vivekanandan, P (Vivekanandan, P.)

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**Cited Reference Count:** 21

**Abstract:** The Internet of Things (IoT) has been identified to be an emerging wave for the development of new services along with a global growth of the economy which is driven by several things that are connected to the Internet. The IoT has a vision of connecting many billions of things in a pervasive manner that can interact with the environment surrounding us and also receiving information on the status which has not been available earlier by means of looking at a particular set of things. The IoT is an extension of the Wireless Sensor Network (WSN) which has today become the entity that pervades the human life that reaches areas wherein humans cannot reach. The application of the WSN is today a trend which is invincible in different commercial, medical, environmental and industrial fields. Integrating the WSN, the cloud and other computational elements with a new field of technology known as the "IoT." There is another new routing protocol which is energy efficient in the WSN for the saving of node energy along with the integration of the WSN with the cloud for improving the efficiency of sensor nodes using trust. The routing has been identified so that the capacity of the node is reused. An analysis of the architecture is done focusing the problems that addresses the energy consumption during data collection process that is challenging due to mobility and it also focuses the security in energy efficient sensor network. The results proved that this routing proposed had a lower average PDR for the 250 and 500 number of nodes by about 1.98% and 1.25% for the no attack. This proposed trust along with a security routing has a much higher average PDR for the 250 and 500 number of nodes by about 10.33% and 10.46 for the Grey hole attack-10%.

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**Author Keywords:** Internet of Things (IoT); Medical Internet of Things (MIOT); Wireless Sensor Network (WSN); Cloud; Energy Efficiency; Routing; Security; Trust

**KeyWords Plus:** ARCHITECTURE; MANAGEMENT

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#### Record 123 of 250

**Title:** Titanium-Coated Dual-Core D-Shaped SPR-Based PCF for Hemoglobin Sensing

**Author(s):** Jabin, MA (Jabin, Md Asaduzzaman); Ahmed, K (Ahmed, Kawsar); Rana, MJ (Rana, Md Juwel); Paul, BK (Paul, Bikash Kumar); Luo, YH (Luo, Yanhua); Vigneswaran, D (Vigneswaran, Dhasarathan)

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**Cited References:** An GW, 2014, PLASMONICS, V9, P1355, DOI 10.1007/s11468-014-9749-5

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**Cited Reference Count:** 20

**Abstract:** Two new dual-core D-shaped SPR (surface plasmon resonance) PCFs (photonic crystal fibers) (DCD-S-SPR PCF) with a splitting barrier between the twin cores are proposed for the detection and sensing of the different bio-samples of human blood. Moreover, each proposed model is displaying a promising performance for different optical parameters, such as refractive index (RI), confinement loss (alpha(c)) birefringence (B-i), coupling length (L-c), transmittance (T-x), wavelength sensitivity (S-w), amplitude sensitivity (Sa), resolution, and figure of merit (FOM). However, the observation is done by the finite element method (FEM) for the assumed wavelength range from 2.1 to 3 mu m and provides the comparison between two DCD-S-SPR PCF models. The

performance indicator measurements for model 1 and model 2 corresponding to the wavelength sensitivity, amplitude sensitivity, resolution, transmittance variance, FOM, and detection limit of each proposed DCD-S-SPR PCF are, respectively, as follows: 12,320.10 nm/RIU, -230 RIU-1,  $1.5 \times 10^{(-2)}$  RIU, 4342.34 dB/RIU, 190, 0.21; and 18,550 nm/RIU, -360 RIU-1,  $1.0 \times 10^{(-1)}$  RIU, 6071.42 dB/RIU, 250, 0.07. Also, the satisfactory results of those parameters of each hemoglobin sensor confirm the better sensing performance, and the hemoglobin sensor proves itself a tough competitor in the field of PCF-based bio-sensing application.

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**Document Type:** Article

**Author Keywords:** Hemoglobin sensor; Dual-core D-shaped PCF; Birefringence; Transmittance; Sensitivity; Resolution

**KeyWords Plus:** PHOTONIC CRYSTAL FIBER; SENSOR; SENSITIVITY; SILVER

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#### Record 124 of 250

**Title:** Performance Investigation of Gate Engineered tri-Gate SOI TFETs with Different High-K Dielectric Materials for Low Power Applications

**Author(s):** Vimala, P (Vimala, P.); Samuel, TSA (Samuel, T. S. Arun); Pandian, MK (Pandian, M. Karthigai)

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**Cited Reference Count:** 21

**Abstract:** In this article, a three-dimensional model of Tri-gate Tunnel Filled effect transistors (TFET) with different gate materials is proposed. Analysis and comparison of various structures such as single material gate, double material gate and triple material gate of a Tri-gate TFET is performed with respect to both DC and AC characteristics. Various electrical parameters that define the performance of a semiconductor device are verified using Silvaco TCAD Simulation results. Parameters analyzed in this work include surface potential, lateral electric field, total electric field along the channel, drain current, transconductance and output conductance of single material, double material and triple material Tri-gate TFETs. The comparative performance analysis shows a better DC and AC performance for Triple Material Tri-gate TFET (TMTGTFET) in comparison to single material and double material Tri-gate devices. It could be inferred that short channel effects are considerably reduced in a gate engineered Tri-Gate TFET structure and it also shows remarkable improvement in ON current as the current increases 45% for TMTGTFET when compared to a SMTG TFET. To improve the TMTGTFET performance, different dielectric materials are employed for device characteristics.

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**Record 125 of 250**

**Title:** Evaluation on properties and characterization of asbestos free palm kernel shell fibre (PKSF)/polymer composites for brake pads

**Author(s):** Ravikumar, K (Ravikumar, K.); Pridhar, T (Pridhar, T.)

**Source:** MATERIALS RESEARCH EXPRESS **Volume:** 6 **Issue:** 11 **Article Number:** 1165d2 **DOI:** 10.1088/2053-1591/ab502d **Published:** NOV 2019

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**Cited References:** Abdel-Rahim YM, 2010, TRIBOL INT, V43, P838, DOI 10.1016/j.triboint.2009.12.003

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**Cited Reference Count:** 40

**Abstract:** In this study an asbestos free composite brake pad was fabricated by incorporating palm kernel shell fibres in epoxy resin using compression moulding technique. Aluminium oxide, calcium carbonate and carbon were added as abrasive element, filler materials and friction modifiers respectively to the composite. Palm kernel shell fibre and resin were added in percentages of 25%, 30% and 35%, while the other elements were kept constant. The composites were subjected to shore hardness, oil and water absorption, flame resistance, compression strength, density, thermal stability and wear tests. Wear surface of the composite brake pads were subjected to SEM to examine the wear mechanism. Composites with 35% palm kernel shell fibre executed less hardness, oil and water absorption, density and compression strength, while the flame resistance, thermal stability and wear resistance of the composites was higher compared to the other two composites. SEM of the wear samples are characterized by wear grooves, micro cracks, debris and particle pull out.

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**Author Keywords:** brake pad; polymer composite; mechanical properties; wear; thermal stability

**KeyWords Plus:** RECOVERY CHARACTERISTICS; TRIBOLOGICAL BEHAVIOR; MECHANICAL-PROPERTIES; WATER-ABSORPTION; FRICTION; PERFORMANCE; PARTICLES; SYSTEM; FADE

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**Title:** Time-critical energy minimization protocol using PQM (TCEM-PQM) for wireless body sensor network

**Author(s):** Thirumoorthy, P (Thirumoorthy, P.); Kalyanasundaram, P (Kalyanasundaram, P.); Maheswar, R (Maheswar, R.); Jayarajan, P (Jayarajan, P.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Amiri, IS (Amiri, Iraj S.)

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**Usage Count (Last 180 days):** 1

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**Cited References:** Amiri IS, 2019, MICROSYST TECHNOL, V25, P1185, DOI 10.1007/s00542-018-4022-z

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**Abstract:** Wireless body sensor network (WBSN) provides a sophisticated monitoring environment without disturbing the daily subject activity. The WBSN increases the mobility of the subject without being restricted inside the hospital environment. However, resources like limited power and transceiver

capability limit the movement of the subject. Providing an energy-efficient scheme will provide extended network lifetime and limits the frequency of recharging the battery. This subject condition modelled as a Markov model with normal and abnormal states. The transition from the normal state to abnormal state is predicted through Markov process. The sensor nodes monitoring the subject status remade to sleep state during the reasonable condition, and during the abnormal state, all the nodes awakened. This sleep-wake methodology with priority queuing model is studied in this paper and implemented in MATLAB. The priority queuing model provides a novel solution for time-critical applications. The proposed TCEM-PQM provides reduced time delay when compared to PQM routing protocol. The time delay reduced for critical applications and the policy suits monitoring environment and healthcare applications. The proposed model is simulated with Markov model.

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**Title:** Upgrading superior operation performance efficiency of submarine transceiver optical communication systems toward multi tera bit per second  
**Author(s):** Malathy, S (Malathy, S.); Kumar, KV (Kumar, K. Vinoth); Rashed, ANZ (Rashed, Ahmed Nabih Zaki); Dhasarathan, V (Dhasarathan, Vigneswaran); Eeldien, ES (Eeldien, Ehab Salah)  
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**Cited Reference Count:** 15

**Abstract:** This paper shows the enhancement of performance operation efficiency of submarine optical communication systems toward multi Tb/s. The performance and cost optimization within transceiver submarine communication system requires careful balancing of single mode fiber attributes. Commercial single mode optical fibers are employed for this task, which that are namely Vascade (R) L1000 fiber, Vascade (R) LS+ fiber, Vascade (R) LEAF (R) fiber, Vascade (R) 51000 fiber, Vascade (R) EX 1000 fiber, and Vascade (R) EX 3000 fiber. High transmission capacity and long distance repeated submarine systems are achieved with attenuation and dispersion managed solutions as well as the effects of water depth, water pressure, and water temperature are taken into account in this study. The importance of minimizing dispersion slope within choosing suitable hybrid commercial submarine optical fibers to ensure good channel performance and wide system bandwidth. Vascade (R) R1000 fiber (mixed Vascade (R) L1000 fiber plus Vascade (R) 51000 fiber) that is

namely dispersion managed fiber (DMF) offers a solution for high submarine system capacity. The figure of merit, cost planning budget, average repeater spacing, and possible transmission bit rate are the key solution for the trade off different commercial submarine optical fibers.

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**Title:** The performance of hosting and core materials for slotted core Q-PCF in terahertz spectrum

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**Abstract:** In this article, the effect of different substrate material on characteristics are analyzed for sensing application using photonic crystal fibers (PCF). The proposed quasi cladding slotted core Q-PCF have been investigated over wider frequency spectrum ranging from 0.7 THz to 2.5 THz by utilizing various background materials such as Polytetrafluoroethylene (PTFE), Polypropylene (PP), Topas and Zeonex. The investigation shows that the changes of background material strongly affects PCFs properties like sensitivity, core power fraction, confinement loss (CL) and effective material loss (EML). The investigation also reveals that background material with lower refractive index (RI) provides higher sensing response. PTFE is found to be supreme in communication and sensing application for the proposed Q-PCF. Additionally, different PCF characteristics related to different background materials have been studied explicitly.

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**Author(s):** Palanisamy, AR (Palanisamy, A. R.); Tamilselvan, GM (Tamilselvan, G. M.); Pushparaghavan, A (Pushparaghavan, A.)  
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**Abstract:** This paper presents the numerical simulation studies of upgraded system for single-mode fiber (SMF wired)/free space optics (FSO wireless) under high-speed operation of 10 Gb/s. Further, the maximum reach of the system is analyzed based on various advanced modulation techniques, namely phase frequency shift keying (CPFSK), quadrature amplitude modulation, differential phase-shift keying, frequency shift keying, pulse amplitude modulation and different optical amplifiers, namely erbium-doped fiber amplifier, traveling wave semiconductor optical amplifier and parametric optical amplifier, respectively. The overall system studies are done by optiwave system software through which bit error rate and Q-factor are studied. The trade-off between different all-optical amplifiers and modulation techniques is studied to show the enhancement of upgrading system. The simulation results show that the maximum reach of distance belongs to CPFSK modulation scheme.

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**Author Keywords:** CPFSK; QAM; DPSK; FSK; PAM; FSO; BER and Max; Q-factor

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**Abstract:** We report on moisture detection in transformer oil based on an optical waveguide fabricated using graphene oxide (GO). The SU-8 polymer channel waveguide was coated by GO film, using a drop-casting technique. Here, for the polarized light, high absorption of transverse electric (TE) was achieved for the proposed sensor at wavelength 1550 nm. Changes in TE-polarized light absorption by the device were measured at varying water contents. Experiments were carried out for water contents in oil in the range of 16-21 ppm as well as immiscible (free) water in oil. Our observations showed a difference in the results trend obtained for different relative water contents. The TE-transmission power increased linearly with higher water content in transformer oil. A power change of +0.90 dB/ppm of water content in transformer oil was measured within the range tested. A simulation analysis using the finite element method FEM was also carried out. The proposed sensing mechanism can be used under these sensing conditions. This approach also has a fast response time as well as high sensitivity.

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**Abstract:** The present work is intended to investigate the charge carrying properties of nanomaterials for super capacitor applications by electrochemical studies. The nanomaterials were fabricated by green route process by the rhizome of Corallo carpus epigaeus for the first time. The silver nanomaterials were composited over the zinc oxide nanomaterial to improve the efficiency of the energy storage system. The Fourier Transform Infrared spectrum confirm the functional molecules present in the nanomaterial. The Field Emission Scanning Electron Microscopic images evidenced the oval shape of zinc oxide and hexagonal shape of silver nanomaterials. The purity of the nanomaterials was investigated using energy dispersive spectrum. The structural property of the material was studied by x-ray Diffraction. The energy storage capacity was investigated by electrochemical studies. Higher efficiency was observed when the impurity is added with the base material. The specific capacitance was calculated as 160.8 F g(-1) for ZnO nanomaterials and 189.52 F g(-1) for ZnO/Ag nanocomposites at the current density of 0.5 A g(-1). The electrochemical impedance studies were also carried out for the fabricated nanomaterials. The ZnO nanomaterials possess 603 Omega of electron transfer resistance. While adding Ag+ ions over the ZnO nanomaterials, the conductivity (Ret = 489 Omega) was remarkably increased.

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**Abstract:** Wind Energy Conversion System (WECS) plays an inevitable role across the world. WECS consist of many components and equipment's such as turbines, hub assembly, yaw mechanism, electrical machines; power electronics based power conditioning units, protection devices, rotor, blades, main shaft, gear-box, mainframe, transmission systems and etc. These machinery and devices technologies have been developed on gradually and steadily. The electrical machine used to convert mechanical rotational energy into electrical energy is the core of any WECS. Many electrical machines (generator) has been used in WECS, among the generators the Permanent Magnet Synchronous Generators (PMSGs) have gained special focus, been connected with wind farms to become the most desirable due to its enhanced efficiency in power conversion from wind energy turbine. This article provides a review of literatures and highlights the updates, progresses, and revolutionary trends observed in WECS-based PMSGs. The study also compares the geared and direct-driven conversion systems. Further, the classifications of electrical machines that are utilized in WECS are also discussed. The literature review covers the analysis of design aspects by taking various topologies of PMSGs into consideration. In the final sections, the PMSGs are reviewed and compared for further

investigations. This review article predominantly emphasizes the conceptual framework that shed insights on the research challenges present in conducting the proposed works such as analysis, suitability, design, and control of PMSGs for WECS.

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**Title:** Quasi photonic crystal fiber for chemical sensing purpose in the terahertz regime: design and analysis

**Author(s):** Paul, BK (Paul, Bikash Kumar); Ahmed, K (Ahmed, Kawsar); Vigneswaran, D (Vigneswaran, Dhasarathan); Sen, S (Sen, Shuvo); Islam, MS (Islam, Md Shadidul)

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**Abstract:** In this work, a novel quasi-photonic crystal fiber has been proposed, for the first time, in the chemical sensing purpose in the terahertz (THz) regime. Along with the sensing response, power fraction, scattering loss, effective mode area, and V parameter have been numerically computed by the full-vector finite element method with anisotropic circular perfect matched layers. Numerically computed results show that the proposed sensor offers 70.94%, 71.06%, and 72.19% sensing responses for targeted analytes water, ethanol, and benzene respectively at the optical frequency  $f=1\text{THz}$ . Besides, effective mode area of  $1.43\times10(5)\mu\text{m}^2$ ,  $1.48\times10(5)\mu\text{m}^2$  and  $1.55\times10(5)\mu\text{m}^2$  have found at the same time for the same analytes. The Q-PCF model proposed in this paper have bright aspects for practical applications in clinical and diagnostic sensing, medical imaging, environmental monitoring purpose and many other fields related to it.

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**Author Keywords:** Photonic crystal fiber; Optical sensor; Sensitivity; THz regime; Q-PCF

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**Title:** Fuzzy Rough Set Inspired Rate Adaptation and resource allocation using Hidden Markov Model (FRSIRA-HMM) in mobile ad hoc networks

**Author(s):** Suganya, R (Suganya, R.); Jayashree, LS (Jayashree, L. S.)

**Source:** CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS **Volume:** 22 **Pages:** S9875-S9888 **DOI:** 10.1007/s10586-018-1783-1 **Supplement:** 4 **Published:** JUL 2019

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Cited Reference Count: 19

**Abstract:** Data transmission in ad hoc networks necessitates different quality of services (QoS) for ensuring reliable throughput of the network. This reliability in network performance is achievable through a rate adaptation scheme that aids in effective allocation of resource for ensuring QoS, based on network demand. In this approach, the available bandwidth is forecasted based on Hidden Markov Model for improving the efficacy in resource allocation and the new users are facilitated to utilize the resources based on the estimation of currently available resources determined through rough set theory. The rate of adaptation is forecasted based on the present load condition of the network by Rough set theory, which forms the input of the Hidden Markov Model. The fuzzy Rough set concept is mainly used in this technique as they are reliable in analyzing data that not require any basic or auxiliary information pertaining to data than its fuzzy set theory, Bayesian theory and Shafer-Dempster theory counter parts that necessitate the assignment of probability. Fuzzy Rough set concept determines the rate of adaptation through the estimation of queuing state, queuing delay, channel utilization rate, and bandwidth availability. This fuzzy Rough set concept also considers the resource allocation as the significant entity as the channel allocation in dynamic networks purely relies on the dynamic channel variation that alternates in real time distribution of data.

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**Title:** Durability and microstructural studies on fly ash blended self-compacting geopolymer concrete

**Author(s):** Ganeshan, M (Ganeshan, Mahima); Venkataraman, S (Venkataraman, Sreevidya)

**Source:** EUROPEAN JOURNAL OF ENVIRONMENTAL AND CIVIL ENGINEERING **DOI:** 10.1080/19648189.2019.1615991 **Early Access Date:** JUN 2019

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Cited Reference Count: 37

**Abstract:** Effect of Fly ash blending on self-compacting geopolymer concrete (SCGC) in terms of durability and microstructure is discussed here. 10% Class C fly ash was incorporated into Class F fly ash in self-compacting geopolymer, to alter the conventional methods of heat curing and aiming for commercialisation in concrete production. Geopolymer (GP) synthesis of low calcium fly ash was prepared using combination of sodium hydroxide and sodium silicate, to achieve M30 grade concrete. Tests such as acid resistance, sulphate resistance, water absorption, sorption test, chloride penetration and accelerated corrosion were performed on account of durability, and interstitial characteristics were diagnosed using SEM analysis. Results prove that the inclusion of Class C fly ash did not show any detrimental effects in SCGC, and are viable for use in hazardous environmental conditions.

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**Author Keywords:** Fly ash blended self-compacting geopolymer; sulphate attack; acid attack; sorption test; rapid chloride permeability test; accelerated corrosion test; SEM analysis

**KeyWords Plus:** SODIUM-HYDROXIDE CONCENTRATION; BLAST-FURNACE SLAG; COMPRESSIVE STRENGTH; PERFORMANCE; WORKABILITY; CEMENT; FRESH

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**Title:** Modified duobinary modulation of optical signals generated by silicon-based microring resonator

**Author(s):** Amiri, IS (Amiri, Iraj Sadegh); Addanki, S (Addanki, Satish); Sampathkumar, A (Sampathkumar, Arumugam); Dhasarathan, V (Dhasarathan, Vigneswaran); Yupapin, P (Yupapin, Preecha)

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Cited Reference Count: 31

**Abstract:** Multi-wavelength can be generated using microring resonator systems. To transmit these optical signals over a long distance optical communication link, a modulation technique is required. In this research, the modified duobinary modulation technique has been utilized to modulate the generated multi-wavelength from the microring resonator system. We have de-multiplexed the multi-wavelength to single frequencies which undergo a modulation and transmission over a fiber link with a length of 50 km. The performance of the proposed pulse code modulation technique has been analyzed by presenting the quality factor versus the optical input power, eye diagram, and received power for different optical fiber length. The results show the high-quality signals received with a high-quality factor and to the best of our knowledge, no analysis has been reported on the microring resonator system using the modified duobinary modulation technique. The results show a maximum quality factor of 12.556 which can be obtained for the input power of -10.11 dBm with the optical fiber length of 50 km, where the bit error rate (BER) was  $1.29 \times 10^{-27}$ . The quality factor drops to lower values for the longer optical fiber length linearly as it has the lowest value of 5.023 for optical fiber length of 70 km. The analysis has been performed over system parameter optimizations.

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**Author Keywords:** microring resonator; modified duobinary modulation technique; multi-wavelength

**KeyWords Plus:** RETURN-TO-ZERO; SPECTRAL EFFICIENCY; TRANSMISSION

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**Record 137 of 250**

**Title:** Analysis of optical properties and mode distribution of Ag-Si photonic crystal

**Author(s):** Muruganantham, P (Muruganantham, P.); Revathy, V (Revathy, V.); Kumar, KV (Kumar, K. Vinoth); Manikandan, V (Manikandan, V.); Yuvaraj, SA (Yuvaraj, S. A.); Kuppusamy, PG (Kuppusamy, P. G.)

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El-Khozondar HJ, 2019, PHYSICA E, V111, P29, DOI 10.1016/j.physe.2019.02.030

Nallusamy N, 2019, APPL OPTICS, V58, P333, DOI 10.1364/AO.58.000333

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**Cited Reference Count:** 5

**Abstract:** The photonic crystal index profile with silicon (Si)-Silver(Ag) nanocomposites are numerically investigated using by Transfer Matrix Methods. The respective optical properties such as its mode profile, group delay and intensity distribution is studies and analyzed. The results reveal the interesting phenomena that the group delay is reduced with increasing the wavelength which will be highly deserved for communication applications.

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**Author Keywords:** Photonic crystal; Nanocomposites; Index profile

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**Record 138 of 250**  
**Title:** PERFORMANCE EVALUATION ON SELECTION OF FORMWORK SYSTEMS IN HIGH RISE BUILDINGS USING REGRESSION ANALYSIS AND THEIR IMPACTS ON PROJECT SUCCESS  
**Author(s):** Rajeshkumar, V (Rajeshkumar, Viswanathan); Sreevidya, V (Sreevidya, V)  
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Zhang XQ, 2005, J CONSTR ENG M ASCE, V131, P1054, DOI 10.1061/(ASCE)0733-9364(2005)131:10(1054)  
**Cited Reference Count:** 32

**Abstract:** The selection of the formwork system for high rise building affects the entire construction project duration and cost. The study reports the factors influencing the selection of different formwork system in the construction of high rise buildings through structural questionnaire survey from the client, contractor, consultant, and interviews with expert members. Total of 40 technical factors was identified from the literature and 220 filled questionnaires were received from the respondent. Relative Importance Index method is used to find the topmost factors affecting the selection of formwork system. Additionally, from factor analysis 22 factors were identified to have a correlation with one another. Regression analysis reveals that duration of the project,

maintenance cost, adaptability, and safety have impact on formwork selection across time, cost and quality. These findings could potentially increase the construction company's existing knowledge in relation to formwork selection.

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**Author Keywords:** Formwork system; Factor analysis; Correlation; Regression analysis

**KeyWords Plus:** DESIGN; PLS

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#### Record 139 of 250

**Title:** Structural, optical and electrical behavior of ZnO@Ag core-shell nanocomposite synthesized via novel plasmon-green mediated approach

**Author(s):** Vivek, C (Vivek, C.); Balraj, B (Balraj, B.); Thangavel, S (Thangavel, S.)

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**Abstract:** The present investigation deals with the preparation of pure Zinc oxide (ZnO) and Zinc oxide (ZnO)/Silver (Ag) core-shell nanocomposites (CSNCs) via green approach. The C. auriculata leaf extract acted as the reducing agent to prepare ZnO@Ag CSNCs which served as core (ZnO) and shell (Ag) material. The Ag shell material was consequently grown over the surface of ZnO by using cationic surfactant (CTAB). In the formation of ZnO@Ag core-shell material, ZnO and Ag NPs had face-center-cubic and hexagonal wurtzite structures which were investigated by powder X-ray diffraction (PXRD) studies. The stretching and bending vibration of the various functional groups were observed from the prepared material using fourier transform infrared spectroscopy (FTIR) analysis. In diffuse reflectance spectrum (DRS) spectrum, energy band gap was achieved to be 3.72eV and 3.96eV respectively for ZnO NPs and ZnO@Ag CSNCs. From the result, energy band gap (0.24eV) was slightly increased by occurrence of blue shift due to quantum confinement effect. The presence of surface defects, Zn interstitials and oxygen vacancies in the prepared material were primarily confirmed by Photoluminescence (PL) and Raman analysis. The scanning electron microscopy (SEM) and transmission electron microscopic (TEM) analysis were used to identify the core-shell formation of ZnO@Ag. The dielectric behavior of the prepared material was studied by observing the properties of dielectric constant, dielectric loss and ac conductivity with respect to different temperatures (313-423K) and different frequencies (1kHz to 1MHz).

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Author(s): Ragunath, S (Ragunath, S.); Leninsundar, M (Leninsundar, M.)

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**Cited Reference Count:** 19

**Abstract:** Parametric water quality indexing (WQI) helps integrate the interwoven effects of independent parameters which may enhance or impair the desirable physico-chemical and biological characteristics of both surface waters and groundwater reserves. Monsoon and post-monsoon status of the distribution of such parameters will give an insight on improvising the qualities of water for multiple usages in the vicinity of a tank and its influential area on groundwater contamination. A typical system tank in Coimbatore urban reach of the Noyyal river was studied by using GIS applications. The test values of all parameters considered were subjected to indexing for water quality grades inflicted by the presence of contaminants. On a 1 to 5 gradation, the study area was found to have a weighted mean water quality index of 2.34 and 2.35 for tank surface water during the monsoon and post-monsoon periods, respectively. In case of ground water sampling, the same was found to be 2.17 and 2.19 for the respective situations. The overall hazard rating was characterized under medium to high, warranting quarantine measures to safeguard the water quality standards for multiple uses in the study locality, pinning the eyes on dissolved oxygen improvements, turbidity control mechanisms, alkalinity amendments and moderations of hardness prevailing as high hazard indicators. The pre-monsoon season ratings were nearing the critical conditions at overall ratings ranging from 3.03 to 2.65 (high to severe) for surface and groundwater, respectively.

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**Author Keywords:** Water quality index; Surface water; Groundwater; Dissolved oxygen; Turbidity; Alkalinity and hardness; Monsoon

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**Title:** Analytical and numerical demonstration of phase characteristics on two solitons under the influence of third-order dispersion

**Author(s):** Udayakumar, R (Udayakumar, R.); Ben Ali, N (Ben Ali, Naim); Naicker, BM (Naicker, Bhupeshwaran Mani); Rajan, MSM (Rajan, M. S. Mani); Yupapin, P (Yupapin, P.); Amiri, IS (Amiri, I. S.)

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**Abstract:** In the present work, influence of third-order dispersion (TOD) on phase change properties of two-soliton model is numerically and analytically investigated. Using perturbation theory approach and split-step Fourier transform, phase characteristics of two solitons pulse are evolved and solved by nonlinear Schrodinger's equation. Each phase variation in the form of temporal shift under the base of third-order dispersion is also numerically devoted using the moments equation. As a result, it was found that the shift of soliton pulse mainly depends on third-order dispersion parameter (3). With the good agreement between analytical and numerical analysis, the impact of TOD has realized in a single channel telecommunication system.

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**Author Keywords:** Third-order dispersion; Split-step Fourier transform; Method of moments; Perturbation theory

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**Title:** Fabrication and characterisation of silver nanoparticles using bract extract of *Musa paradisiaca* for its synergistic combating effect on phytopathogens, free radical scavenging activity, and catalytic efficiency

**Author(s):** Maruthai, J (Maruthai, Jayapriya); Muthukumarasamy, A (Muthukumarasamy, Arulmozhi); Baskaran, B (Baskaran, Balraj)

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**Abstract:** This work explores the rapid synthesis of silver nanoparticles (AgNPs) from *Musa paradisiaca* (M. paradisiaca) bract extract. The bio-reduction of Ag<sup>+</sup> ion was recorded using ultraviolet-visible spectroscopy by a surface plasmon resonance extinction peak with an absorbance at 420 nm. The phytoconstituents responsible for the reduction of AgNPs was probed using Fourier transform infrared spectroscopy. The X-ray diffraction pattern confirmed the formation of crystalline AgNPs that were analogous to selected area electron diffraction patterns. Morphological studies showed that the obtained AgNPs were monodispersed with an average size of 15 nm. The biologically synthesised AgNPs showed higher obstruction against tested phytopathogens. The synthesised AgNPs exhibited higher inhibitory zone against fungal pathogen *Alternaria alternata* and bacterial pathogen *Pseudomonas syringae*. Free radical scavenging potential of AgNPs was investigated using 1,1-diphenyl-2-picryl hydroxyl and 2,2-azinobis (3-ethylbenzothiazoline)-6-sulphonic acid assays which revealed that the synthesised AgNPs act as a potent radical scavenger. The catalytic efficiency of the synthesised AgNPs was investigated for azo dyes, methyl orange (MO), methylene blue (MB) and reduction of o-nitrophenol to o-aminophenol. The results portrayed that AgNPs act as an effective nanocatalyst to degrade MO to hydrazine derivatives, MB to leucomethylene blue, and o-nitro phenol to o-amino phenol

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**KeyWords Plus:** GREEN SYNTHESIS; LEAF EXTRACT; ANTIFUNGAL ACTIVITY; FACILE SYNTHESIS; PEEL EXTRACT; ANTIOXIDANT; BIOSYNTHESIS; ANTIBACTERIAL; L.; NANOCOMPOSITES

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**Record 143 of 250**

**Title:** Reverse Search Strategy Based Optimization Technique to Economic Dispatch Problems with Multiple Fuels

**Author(s):** Arumugam, P (Arumugam, Prakash); Panchapakesan, M (Panchapakesan, Madhavan); Balraj, S (Balraj, Sudhakar); Subramanian, RC (Subramanian, Ravichandran Coimbatore)

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**Cited Reference Count:** 19

**Abstract:** This research article constitutes an efficient way to extract the minimum fuel cost for the economic dispatch problem considering multiple fuel options along with valve point effects. In general one convex cost function for one generator is assumed. The piecewise quadratic cost function is represented by selecting the convex cost function more than one for a generator. A new approach referred as Power Search Algorithm (PSA) based on reverse search strategy is suggested along with various constraints in ED. The proposed algorithm has been evaluated on a ten unit multi-fuel system for various power demands with different fuel input options. The outcomes acquired from the simulation are of good quality and furthermore it reveals that the proposed algorithm performs superior than the various algorithms discussed.

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**KeyWords Plus:** LOAD DISPATCH; ALGORITHM

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**Title:** Heat transfer in a side heated trapezoidal cavity with openings

**Author(s):** Gowda, BMK (Gowda, B. M. Krishne); Rajagopal, MS (Rajagopal, M. S.); Aswatha (Aswatha); Seetharamu, KN (Seetharamu, K. N.)

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**Abstract:** A control volume based numerical study has been carried out on trapezoidal cavity which has formed by inclined left heated wall and insulated bottom horizontal walls. The calculations are performed for Rayleigh numbers varying from 10(3) to 10(7) and orientation of heated wall is  $\phi = 60$  degrees and 120 degrees. The results are compared for cases without opening and with different openings of the vertical wall as functions of isotherms, streamfunctions, local and average heat transfer rates. The overall Nusselt number increases with increase of Rayleigh number, but decreases with increase in angle of orientation. The transition region between conduction to convection is existing almost at  $Ra = 5 \times 10(3)$ . It has been observed that the case having vents at extreme ends exhibits highest heat transfer compared to other cases. The heat transfer is better for the orientation angle of 60 degrees. As compare to uniformly cooled wall, the heat transfer is enhanced by 23%, 39%, 56% and 74% at  $Ra = 10(4)$ , 10(5), 10(6) and 10(7) respectively. The power law correlations have been developed between average Nusselt numbers and Rayleigh numbers. (C) 2018 Karabuk University. Publishing services by Elsevier B.V.

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**Record 145 of 250**

**Title:** Properties of ternary photonic crystal consisting of dielectric/plasma/dielectric as a lattice period  
**Author(s):** Abadla, MM (Abadla, Mazen M.); Tabaza, NA (Tabaza, Noor A.); Tabaza, W (Tabaza, Wael); Ramanujam, NR (Ramanujam, N. R.); Wilson, KSJ (Wilson, K. S. Joseph); Vigneswaran, D (Vigneswaran, Dhasarathan); Taya, SA (Taya, Sofyan A.)  
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**Cited Reference Count:** 49

**Abstract:** Ternary photonic crystals have shown a superior performance over the binary ones. In this work, a ternary photonic crystal which has the structure dielectric/plasma/dielectric is considered. Transmission through the proposed photonic crystal at oblique incidence on a specific PC structure is analyzed using the transfer matrix technique. The effect of the plasma layer of the photonic band gap is investigated. The use of the proposed photonic crystal as an optical sensor for detection of small changes within the plasma electron density or the index of refraction of the dielectric layers is investigated.

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#### Record 146 of 250

**Title:** Charging Station for E-Vehicle using Solar with IOT

**Author(s):** Akila, A (Akila, A.); Akila, E (Akila, E.); Akila, S (Akila, S.); Anu, K (Anu, K.); Elzalet, J (Elzalet, J.)

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**Abstract:** This paper is about charging E-vehicle module using the Solar panel, availability of maximum power is viewed by IOT device and the maximum power generated by the solar is being tracked using the MPPT controller. The simulation model is designed using Proteus software. The whole setup is connected to the Arduino UNO R3, the battery level, generated and distributes an amount of the battery is viewed using an LCD. GSM modem is used to get an alert message for any reduction of power occurred in the system. A web page is used to check the availability status of charge, the amount of power transferred to the charging module and the available location for the charging station can be displayed. The main idea of this paper is to reduce greenhouse gas emission and fossil fuel.

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**Author Keywords:** Solar panel; DC-DC converter; Arduino UNO R3; Modem; Servo motor; Battery; MPPT controller

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**Cited Reference Count:** 44

**Abstract:** Improving network lifetime of Wireless Sensor Network (WSN) is the prime concern for researchers to enhance the monitoring duration and reducing risk due to automation. The node lifetime is mainly determined by - the number of bits transmitted and distance between the sender and receiver. The optimal selection of Cluster Head (CH) and relay node, avoids unnecessary loss of energy due to data sharing with long distance node. A Fuzzy logic based routing algorithm is designed to enhance the network lifetime by optimally selecting CH and relay node providing less number of bits transmitted. A threshold framework is designed to reduce the number of handshake signals, the Cluster Member (CM) starts its connection establishment and shares data once the threshold is reached, thereby improving the lifetime. The proposed algorithm when compared with LEACH protocol exhibits that the improvement with respect to lifetime is 1.44 times and with respect to throughput it is 1.17 times. Since the algorithm takes the average energy of cluster in account, equal distribution of load is observed. The unequal clustering exhibited by the proposed algorithm proves its resistance over Energy Hole and HOT SPOT problems.

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**Title:** Weld Strength Analysis of Ultrasonic Polymer Welding Using Adaptive Neuro-Fuzzy Inference System

**Author(s):** Chinnadurai, T (Chinnadurai, T.); Saravanan, S (Saravanan, S.); Pandian, MK (Pandian, M. Karthigai); Prabaharan, N (Prabaharan, N.); Dhanaselvam, J (Dhanaselvam, J.)

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**Cited Reference Count:** 9

**Abstract:** Polymers are widely used in automotive and aerospace industries for its better strength and easy to design the expected shape and size of parts. To join the two plastic parts, ultrasonic welding is an effective way because of fast and clean process. The present study intends to investigate the weld strength of Ultrasonic Welding (USW) for PC/ABS blend using adaptive neuro-fuzzy inference system (ANFIS). The ANFIS models are utilized for the formulation of mathematical model of USW. All the input parameters are expected to have a significant impact on the weld strength but the most influencing input parameters are pressure, weld time and amplitude are prepared for this study. By comparing the real-time experimental results with the ANFIS predicted results, it is observed that the predicted and experimental models are in accordance with each other. This novel ANFIS model could be further employed for identifying the tensile strength of USW joints in various joining applications. Finally, the SEM images are analyzed to predict the nature of the weld condition.

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**Author Keywords:** Ultrasonic welding; PC/ABS; ANFIS; SEM

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| S, Saravanan        | O-7731-2017                 | 0000-0003-3076-168X |

**Publisher:** SPRINGER-VERLAG BERLIN

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**Web of Science Categories:** Engineering, Manufacturing; Engineering, Mechanical

**Research Areas:** Engineering  
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**29-char Source Abbrev.:** LECT N MECH ENG  
**Source Item Page Count:** 9  
**Output Date:** 2020-01-07

**Record 149 of 250**  
**Title:** A Study on Friction Stir Welding of Al6061-ZrB2 Metal Matrix Composites  
**Author(s):** Christy, TV (Christy, T. V.); Franklin, DES (Franklin, D. Emmanuel Sam); Nelson, R (Nelson, R.); Mohanasundaram, S (Mohanasundaram, S.)  
**Edited by:** Sekar KSV; Gupta M; Arockiarajan A  
**Source:** ADVANCES IN MANUFACTURING PROCESSES, ICEMMM 2018 **Book Series:** Lecture Notes in Mechanical Engineering **Pages:** 267-277 **DOI:** 10.1007/978-981-13-1724-8\_26 **Published:** 2019  
**Times Cited in Web of Science Core Collection:** 0  
**Total Times Cited:** 0  
**Usage Count (Last 180 days):** 0  
**Usage Count (Since 2013):** 2

**Cited References:** Akbari MK, 2015, MATER DESIGN, V66, P150, DOI 10.1016/j.matdes.2014.10.048  
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**Cited Reference Count:** 24  
**Abstract:** Over the past few decades, various attempts have been made in fabricating aluminum matrix composites (AMCs) reinforced with several ceramic particles for various applications in aircraft, automotive and marine industries. Al6061 reinforced with (10 wt%) ZrB2 composite is a metal matrix composite (MMC) manufactured by the in situ salt-metal reaction. Friction stir welding (FSW), a solid-state welding, overcomes the setbacks associated with conventional fusion welding processes. The primary objective of this work is to adapt FSW process in joining Al6061/ZrB2 with various weld parameters like tool rotational speed (1200, 1300, 1400, 1500, 1600 and 1700 rpm), welding speed (20, 30, 40, 50, 60 and 70 mm/min) and axial force maintained between 2.5 and 3.5 kN. With the addition of ZrB2, the properties of Al6061 are highly improved. An attempt has been made to study the mechanical properties and the microstructure of Al6061-ZrB2 MMC welded by FSW method. The evaluation of microstructure in the welded joints showed various zones like welded nugget zone (WNZ), thermomechanically affected zone (TAZ) and heat-affected zone (HAZ). The weld zone was characterized with homogeneously distributed ZrB2 particles. Samples 3 and 4 showed comparatively good mechanical properties than the remaining samples with different weld parameters.

**Accession Number:** WOS:000482015100026  
**Language:** English  
**Document Type:** Proceedings Paper  
**Conference Title:** International Conference on Engineering Materials, Metallurgy and Manufacturing (ICEMMM)  
**Conference Date:** FEB 15-16, 2018  
**Conference Location:** Chennai, INDIA  
**Conference Sponsors:** SSN Coll Engn, Dept Mech Engn  
**Author Keywords:** Al6061 alloy; Al-ZrB2 metal matrix composite (MMC); Aluminum matrix composite (AMC); Friction stir welding (FSW)  
**KeyWords Plus:** MECHANICAL-PROPERTIES; TENSILE PROPERTIES; WEAR BEHAVIOR; MICROSTRUCTURE; B4C  
**Addresses:** [Christy, T. V.; Franklin, D. Emmanuel Sam; Mohanasundaram, S.] Karunya Inst Technol & Sci, Dept Mech Engn, Coimbatore, Tamil Nadu, India. [Nelson, R.] Sri Krishna Coll Technol, Dept Mech Engn, Coimbatore, Tamil Nadu, India.  
**Reprint Address:** Christy, TV (reprint author), Karunya Inst Technol & Sci, Dept Mech Engn, Coimbatore, Tamil Nadu, India.  
**E-mail Addresses:** christy@karunya.edu; emmanuelssam@karunya.edu; nelson.90.mech@gmail.com; mohanasundaram@karunya.edu  
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**Publisher:** SPRINGER-VERLAG BERLIN  
**Publisher Address:** HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
**Web of Science Categories:** Engineering, Manufacturing; Engineering, Mechanical

**Research Areas:** Engineering**IDS Number:** BN4JO**ISSN:** 2195-4356**ISBN:** 978-981-13-1724-8; 978-981-13-1723-1**29-char Source Abbrev.:** LECT N MECH ENG**Source Item Page Count:** 11**Output Date:** 2020-01-07**Record 150 of 250****Title:** Digitized water consumption tracking cum awareness system**Author(s):** Gokul, R (Gokul, R.); Ashwinkarthik, S (Ashwinkarthik, S.); Arunraj, A (Arunraj, A.); Balaji, S (Balaji, S.); Pandiyan, P (Pandiyan, P.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 805-807 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Hegde N., 2012, BAIF INDIAN SCI C

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Stonecypher L., 2015, BUILDING ELECT WATER

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Whittle A J, 2013, 6 INT C STRUCT HLTH

**Cited Reference Count:** 8**Abstract:** To design and develop the working prototype model to monitor the water usage monitoring and control. To monitoring the water quality and quantity. Water is essential for all living things in the world. So our paper describes the amount of water used in household application and check the purity of the water. To find the Water level and the amount of water, water level sensor and the water flow sensors are used. Ph sensor is used to check the purity of the water. In addition to that, an LCD is attached to indicate the level of the container and the purity of the water. Metallic container is used to store the water. We use Arduino to interface the sensors. From this prototype module water loss will be controlled and monitor.**Accession Number:** WOS:000477742500174**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)**Conference Date:** MAR 15-16, 2019**Conference Location:** Coimbatore, INDIA**Author Keywords:** Arduino UNO; Metallic container; water flow sensor; PH sensor; cost effective**Addresses:** [Gokul, R.; Ashwinkarthik, S.; Arunraj, A.; Balaji, S.; Pandiyan, P.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.**Reprint Address:** Gokul, R (reprint author), Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** gokulmal1997@gmail.com; 5tuee024@skct.edu.in; 15tuee022@skct.edu.in; 15tuee030@skct.edu.in; pandiyan.p@skct.edu.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic**Research Areas:** Engineering**IDS Number:** BN2TJ**ISSN:** 2469-5556**ISBN:** 978-1-5386-9533-3**29-char Source Abbrev.:** INT CONF ADVAN COMPU**Source Item Page Count:** 3**Output Date:** 2020-01-07

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Page 3 (Records 101 -- 150)

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**Record 151 of 250****Title:** Gesture Controlled Wireless Agricultural Weeding Robot**Author(s):** Gokul, S (Gokul, S.); Dhiksith, R (Dhiksith, R.); Sundares, SA (Sundares, S. Ajith); Gopinath, M (Gopinath, M.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 926-929 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 2**Usage Count (Since 2013):** 2**Cited References:** Arakeri Megha P., 2017 INT C ADV COMP

Cheein F. A., 2013, IEEE IND ELECT MAGAZ, V7

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Xu RZ, 2012, IEEE SENS J, V12, P1166, DOI 10.1109/JSEN.2011.2166953

**Cited Reference Count:** 7

**Abstract:** Automated processes in the field of agriculture have become more and more reliable and efficient. There are many difficulties faced when manpower is used. It is time-consuming and becomes tedious. Robotic systems integrated with various control methods can be very useful in doing repetitive work, such as seed sowing process where the same movement is continuous. Previous weed removal robots included optical image sensing which makes the system more costly. Our robot is cost-effective which eliminates optical sensors. In this project, we have developed a Trainable automatic robot which helps in removing unwanted weed on agricultural fields using gesture to control a three-axis robotic arm to do the necessary work. The arm is placed on a rover which is controlled Wirelessly using Bluetooth. The arm is taught to do the repetitive motion with a gesture using a hand glove to do the necessary work. The setup of the rover with attached the robotic arm is tested and evaluation under normal environmental conditions.

**Accession Number:** WOS:000477742500197**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)**Conference Date:** MAR 15-16, 2019**Conference Location:** Coimbatore, INDIA**Author Keywords:** weeding; agricultural robot; Rover; Hand Gesture**Addresses:** [Gokul, S.; Dhiksith, R.; Sundares, S. Ajith; Gopinath, M.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.**Reprint Address:** Gokul, S (reprint author), Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** gokulsenthil63@gmail.com; 15tuee036@skt.edu.in; 15tuee005@skt.edu.in; 15tuee046@skt.edu.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic**Research Areas:** Engineering**IDS Number:** BN2TJ**ISSN:** 2469-5556**ISBN:** 978-1-5386-9533-3**29-char Source Abbrev.:** INT CONF ADVAN COMPU**Source Item Page Count:** 4**Output Date:** 2020-01-07**Record 152 of 250****Title:** Smart Leaf Infection Identification and Fertilizer Spray**Author(s):** Habib, MAA (Habib, M. Azlan Ahamed); Aakash, S (Aakash, S.); Harisudhan, M (Harisudhan, M.); Prakash, TB (Prakash, T. Bharani); Aaron, S (Aaron, S.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 775-+ **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Brugger Fritz, 2011, MOBILE APPL AGR

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Traore Pierre Sibiry, 2010, ICT UPDATE REMOTE SE

Wang Haiguang, IMAGE RECOGNITION PL

**Cited Reference Count:** 6

**Abstract:** In this paper an automated system has been developed to determine whether the plant is normal or diseased. The normal growth of the plants, yield and quality of agricultural products is seriously affected by plant disease. This paper attempts to develop an automated system that detects the presence of disease in the plants. An automated disease detection system is developed using sensors like temperature, humidity and colour based on

variation in plant leaf health condition. Here, IOT comes into picture to supply semi-automated or fully-automated frameworks to supply superior comes about.

**Accession Number:** WOS:000477742500167

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Internet of Things (IoT); Image Processing; Disease Diagnosis; Arduino; Robotic Setup

**Addresses:** [Habib, M. Azlan Ahamed; Aakash, S.; Harisudhan, M.; Aaron, S.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

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**29-char Source Abbrev.:** INT CONF ADVAN COMPU

**Source Item Page Count:** 3

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#### Record 153 of 250

**Title:** Cultivation of plants under Artificial Environmental Parameters to Increase Productivity Rate

**Author(s):** Jayakumar, RS (Jayakumar, R. S.); Devi, VSS (Devi, Sanjana V. S.); Rivetha, AL (Rivetha, Loshini A.); Mathan, RM (Kumar, Mathan R.); Mouli, S (Mouli, S.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 930-932 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Edwards C., 2015, WHAT ARE ADVANTAGES

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Sumit K, 2012, MONITORING CONTROL G

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**Cited Reference Count:** 4

**Abstract:** In 2017, according to FAO, agricultural productivity is increasing at a rate of 1.5% per year which is nearly 1% lesser than the early 2000's. But the growth rate of population in India is 1.9% per annum according to the 2001 census. This means that we are in desperate need for increase in productivity to suffice our population. In this thesis, an automated greenhouse was built for checking the stability of the factors necessary for a plant's growth. This project uses three sensors- soil moisture sensor to keep track of the moisture, temperature and humidity sensor to monitor the weather and LDR to check the presence of light. There are three actuators- a cooling fan, DC pump and a light bulb. Results showed that when all the factors of plant growth are stabilized, then it is possible to grow a plant in 50 days which normally takes 80 days for its growth.

**Accession Number:** WOS:000477742500198

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Greenhouse; GSM; Sensors; Threshold values; Environmental parameters

**Addresses:** [Jayakumar, R. S.; Devi, Sanjana V. S.; Rivetha, Loshini A.; Kumar, Mathan R.; Mouli, S.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Jayakumar, RS (reprint author), Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** 15tuee103@skct.edu.in; v.s.sanjanadevi@skct.edu.in; 15tuee125@skct.edu.in; 15tuee130@skct.edu.in; 15tuee141@skct.edu.in

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ

**ISSN:** 2469-5556

**ISBN:** 978-1-5386-9533-3

**29-char Source Abbrev.:** INT CONF ADVAN COMPU

**Source Item Page Count:** 3

**Output Date:** 2020-01-07

#### Record 154 of 250

**Title:** Forest Fire Alerting System With GPS Co-ordinates Using IoT

**Author(s):** Jayaram, K (Jayaram, K.); Janani, K (Janani, K.); Jeyaguru, R (Jeyaguru, R.); Kumaresh, R (Kumaresh, R.); Muralidharan, N (Muralidharan, N.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 488-491 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 2

**Usage Count (Since 2013):** 2

**Cited References:** Akash V., 2013, INT J SCI ENG RES, V4, P586

Anandakumar H, 2018, COMPUT ELECTR ENG, V71, P925, DOI 10.1016/j.compeleceng.2017.09.016

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Owayjan M, 2014, IEEE MEDITERR ELECT, P177, DOI 10.1109/MELCON.2014.6820527

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Sathishkumar R., 2016, INT J SCI ENG RES, V7, P114

Sharma Abhinav Kumar, IOT ENABLED FOREST F

Suganya M., 2013, 2013 INT C GREEN COM

**Cited Reference Count:** 12

**Abstract:** In the advancing world, it is very crucial to protect our environment. Many incidents of man-made and natural disasters were happening around the world. Forest fires are one such catastrophe for environment. Once the fire inside deep forest starts, it burns and destroys everything and spreads everywhere within the forest. Fire spreads on hot days destroys trees and grasses due to drought conditions peaks in a forest region. Such forest fires disasters should be curbed in order to protect fauna and flora habitats in the forest. The objective of this work is to design and implement an IoT based system which is self-sustaining and would predict and detect the forest fires and sends the exact location to concerned officials which would help fire fighting personnel to extinguish the fire in the location where it starts slowly. This would prevent the fire to spread over a huge area and also able to take precautionary measures in order to prevent the fire which may occur in near future.

**Accession Number:** WOS:000477742500104

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Fire Detection; Arduino; Sensors; GPS-Module Authentication; Notification

**Addresses:** [Jayaram, K.; Janani, K.; Jeyaguru, R.; Kumares, R.; Muralidharan, N.] Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Jayaram, K (reprint author), Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ

**ISSN:** 2469-5556

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**29-char Source Abbrev.:** INT CONF ADVAN COMPU

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**Output Date:** 2020-01-07

**Record 155 of 250**

**Title:** Automatic chocolate vending machine

**Author(s):** Kanagasabapathi, V (Kanagasabapathi, V); Naveenraj, K (Naveenraj, K.); Neelavarnan, V (Neelavarnan, V); Raj, SN (Raj, Naveen S.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 584-587 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** [Anonymous], 2014, STATIONERY VENDING M, V1

[Anonymous], 2015, INT J COMPUTER APPL, V115

[Anonymous], 2015, IJSETR, V4

[Anonymous], 2017, VEND MACH US 8051 MI, V6

Kamal Raj, 2008, AUTOMATIC CHOCOLATE, V1

**Cited Reference Count:** 5

**Abstract:** This paper proposes the design of Automatic chocolate vending machine. The primary point of the thought is to dispatch new innovation application in the public eye. Vending machine that sales different type of products. Here we uses Radio frequency Identification (RFID) along with Arduino, to overcome the coin based vending machine which does not returned the balance amount if no change available. The customer can select the product before the RFID is read, after card is scanned the product can be collected at the chocolate collector. There are three units are present in the machine, the cashless payment provided by the RFID in the first unit. In second unit, Arduino UNO executed the programming section and Finally, the machine delivers the product

and displays the information on the display. This paper made solution to the machine that do not returns the balance amount in a coin based vending machine.

**Accession Number:** WOS:000477742500126

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Arduino; RFID; Motor drive

**Addresses:** [Kanagasabapathi, V; Naveenraj, K.; Neelavarnan, V; Raj, Naveen S.] Sri Krishna Coll Technol, Dept Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kanagasabapathi, V (reprint author), Sri Krishna Coll Technol, Dept Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ

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**ISBN:** 978-1-5386-9533-3

**29-char Source Abbrev.:** INT CONF ADVAN COMPU

**Source Item Page Count:** 4

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**Record 156 of 250**

**Title:** Smart Electric Vehicle

**Author(s):** Khan, MA (Khan, M. Al Rizwan); Gowtham, B (Gowtham, B.); Saravanan, ASA (Saravanan, A. S. Akash); Bharathi, RA (Bharathi, R. Arun); Elakya, A (Elakya, A.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 954-957 **Published:** 2019

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**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Abstract:** Nowadays, the entire economic, social and political life of a modern country depends upon an efficient system of Transportation. In such case, hydrocarbon powered vehicles i.e. IC engines are used mostly in vehicles for transportation. But, the main drawback is the extinction of Fossil fuel (Hydrocarbon). To overcome this problem Electric Vehicle (EV) was discovered. Comparing EV and IC engines, EV possess higher efficiency and weight/power ratio. Normally, in EV, DC motors are used, which contains lesser speed range when compared to IC engine and hence, it was not able to satisfy the customer need effectively and efficiently. Recent studies portrays that AC Induction motors has higher speed range, efficiency and weight/power ratio comparing to both DC Electric Vehicle and IC engine. Hence, this paper represents Electric Vehicle with AC induction motor, were Sinusoidal Pulse Width Modulation (SPWM) technique is incorporated in this system.

**Accession Number:** WOS:000477742500202

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Sinusoidal Pulse Width Modulation [SPWM]; Internal Combustion [IC]; Pulse Width Modulation [PWM]; Electric Vehicle [EV]

**Addresses:** [Khan, M. Al Rizwan; Gowtham, B.; Saravanan, A. S. Akash; Bharathi, R. Arun; Elakya, A.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbtore, India.

**Reprint Address:** Khan, MA (reprint author), Sri Krishna Coll Technol, Elect & Elect Engn, Coimbtore, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

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**29-char Source Abbrev.:** INT CONF ADVAN COMPU

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## Record 157 of 250

**Title:** A novel resource clustering model to develop an efficient wireless personal cloud environment**Author(s):** Kowsigan, M (Kowsigan, Mohan); Balasubramanie, P (Balasubramanie, Palanisamy)**Source:** TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES **Volume:** 27 **Issue:** 3 **Pages:** 2156-2169 **DOI:** 10.3906/elk-1807-187 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 1**Cited References:** Abdulhamid SIM, 2014, J THEORETICAL APPL I, V63, P1

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**Abstract:** In the current era, cloud computing is the major focus of distributed computing and it helps in satisfying the requirements of the business world. It provides facilities on demand under all the parameters of the computing, such as infrastructure, platform, and software, across the globe. One of the major challenges in the cloud environment is to cluster the resources and schedule the jobs among the resource clusters. Many existing approaches failed to provide an optimal solution for job scheduling due to inefficient clustering of resources. In the proposed system, a novel algorithm called resource differentiation based on equivalence node potential (RDENP) is proposed for clustering the resources in a simulated wireless personal cloud environment. The performance evaluation is done among the existing and proposed approaches; as a result, the proposed RDENP algorithm produces the optimal solution for clustering the resources, which will lead to an efficient scheduling policy in a cloud environment in the future. To take this idea forward, an optimal energy consumption algorithm is to be designed to process the jobs among the resources and to minimize the infrastructure of the cloud environment by clustering the resources virtually.

**Accession Number:** WOS:000469016000042**Language:** English**Document Type:** Article**Author Keywords:** Cloud computing; resource clustering; node weight; resource clustering algorithm; RDENP**KeyWords Plus:** COMPUTING MOTIVATION; TAXONOMY**Addresses:** [Kowsigan, Mohan] Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.

[Balasubramanie, Palanisamy] Kongu Engn Coll, Dept Comp Sci &amp; Engn, Erode, India.

**Reprint Address:** Kowsigan, M (reprint author), Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** mkowsigan@gmail.com**Author Identifiers:**

| Author                     | Web of Science ResearcherID | ORCID Number        |
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| M, Kowsigan                | AAC-1660-2019               | 0000-0002-0861-0079 |
| Palanisamy, Balasubramanie |                             | 0000-0003-0188-6205 |

**Publisher:** TUBITAK SCIENTIFIC & TECHNICAL RESEARCH COUNCIL TURKEY**Publisher Address:** ATATURK BULVARI NO 221, KAVAKLIDERE, ANKARA, 00000, TURKEY**Web of Science Categories:** Computer Science, Artificial Intelligence; Engineering, Electrical & Electronic**Research Areas:** Computer Science; Engineering**IDS Number:** HZ7EQ**ISSN:** 1300-0632**eISSN:** 1303-6203**29-char Source Abbrev.:** TURK J ELECTR ENG CO**ISO Source Abbrev.:** Turk. J. Electr. Eng. Comput. Sci.**Source Item Page Count:** 14**Open Access:** Bronze

Output Date: 2020-01-07

**Record 158 of 250****Title:** FACE RECOGNITION BASED NEW GENERATION ATM MACHINE**Author(s):** Kumar, DA (Kumar, D. Arun); Iniyan, B (Iniyan, B.); Askar, MA (Askar, M. Ahamed); Ajay, A (Ajay, A.); Ambika, R (Ambika, R.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 938-943 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Anandakumar H, 2018, COMPUT ELECTR ENG, V71, P925, DOI 10.1016/j.compeleceng.2017.09.016

Anandakumar H, 2017, CLUSTER COMPUT, V20, P1505, DOI 10.1007/s10586-017-0798-3

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**Abstract:** Programmed acknowledgement of people has been a testing errand since quite a while and no such adaptable and powerful framework has been planned so far that could give total human acknowledgement access and security to critical data and physical assets among the different acknowledgement strategies have advanced essentially in the most recent decade and develop to a promising region to distinguish people be that as it may, the dependability of face acknowledgement strategies still require testing assignments to be performed by the exploration network to build up a profoundly Vigorous framework by defeating conceivable facial appearance variety. In this paper, we present a biometric based framework known as face acknowledgement calculation consequently hand off will be on, and engine pivots shows as entry way shutting. This application is process in ATM security framework to improve the verification strategies to improve the innovation.

**Accession Number:** WOS:000477742500199**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)**Conference Date:** MAR 15-16, 2019**Conference Location:** Coimbatore, INDIA**Author Keywords:** Catchphrases: Arduino; Relay; GSM modem; Dc motor; Camera; Haarcascade**Addresses:** [Kumar, D. Arun; Iniyan, B.; Askar, M. Ahamed; Ajay, A.] Sri Krishna Coll Technol, EEE Dept, Coimbatore, Tamil Nadu, India.

[Ambika, R.] Sri Krishna Coll Technol, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kumar, DA (reprint author), Sri Krishna Coll Technol, EEE Dept, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** 15tuee019@skct.edu.in; 15tuee054@gmail.com; 15tuee003@skct.edu.in; 15tuee004@skct.edu.in; r.ambika@skct.edu.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic**Research Areas:** Engineering**IDS Number:** BN2TJ**ISSN:** 2469-5556**ISBN:** 978-1-5386-9533-3**29-char Source Abbrev.:** INT CONF ADVAN COMPU**Source Item Page Count:** 6**Output Date:** 2020-01-07**Record 159 of 250****Title:** Smart Assistant for the Physically Challenged**Author(s):** Kumar, MK (Kumar, Karthik M.); Raj, KK (Raj, Karthick K.); Kumar, MK (Kumar, Karthik M.); Raj, HM (Raj, Mohan H.); Judy, AL (Judy, Little A.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 792-795 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Anandakumar H, 2018, COMPUT ELECTR ENG, V71, P925, DOI 10.1016/j.compeleceng.2017.09.016

Anandakumar H, 2017, CLUSTER COMPUT, V20, P1505, DOI 10.1007/s10586-017-0798-3

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The Development of the Automatic Lane Following Navigation System for the Intelligent Robotic Wheelchair, 2011, IEEE INT C FUZZ SYST

**Cited Reference Count:** 13

**Abstract:** Our shrewd right hand particularly made for the physically handicapped individuals. This gadget is intended to help and offer help so as to support the physically debilitated and older folks in our home. This gadget makes an insurgency in the computerization and therapeutic field. Since, this gadget mechanizes the wheel seat utilizing voice control and screens the soundness of the individual alongside the home mechanization and which is helpful under variations from the norm. Under startling circumstance, it sends a warning to the gatekeeper. It contains home mechanization framework which controls various home machines like lights, fans, globules and a lot more alongside the security framework. Subsequently, our gadget gives free way of life for the physically impaired individuals.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Revolution; Automation; Abnormalities I

**Addresses:** [Kumar, Karthik M.; Raj, Karthick K.; Kumar, Karthik M.; Raj, Mohan H.; Judy, Little A.] Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kumar, MK (reprint author), Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** karthik76983@gmail.com; 15tuee114@sket.edu.in; 15tuee124@sket.edu.in; 15tuee137@sket.edu.in; judy.a@sket.edu.in

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ

**ISSN:** 2469-5556

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**29-char Source Abbrev.:** INT CONF ADVAN COMPU

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#### Record 160 of 250

**Title:** Power Theft Identification System Using Tot

**Author(s):** Leninpugalhanthi, P (Leninpugalhanthi, P.); Janani, R (Janani, R.); Nidheesh, S (Nidheesh, S.); Mamtha, RV (Mamtha, R., V); Keerthana, I (Keerthana, I); Kumar, RS (Kumar, R. Senthil)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 825-830 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Abstract:** Power theft is a blatant problem in electric powersystems, which causes great economic losses and leads to irregular supply of electricity. Power theft can be briefly defined as usage of power without the knowledge of the supplier. It has become the major problem in India and it is a crime. Overall India has highest losses about 16.2 billion dollar. Power theft can be happened in many ways one such way is that a registered customers steal either bypassing the meter ie: connecting around the meter to a live cable on a company side of the meter or tampering with the meter to make the meter to read less or no consumption. In order to eradicate the power theft it has to be identified. In this paper the raspberry Pi is fixed with threshold voltage and current whenever the voltage level get increased power theft is detected.

**Accession Number:** WOS:000477742500179

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Power theft; IOT; Raspberry

**Addresses:** [Leninpugalhanthi, P.; Janani, R.; Nidheesh, S.; Mamtha, R., V; Keerthana, I; Kumar, R. Senthil] Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Leninpugalhanthi, P (reprint author), Sri Krishna Coll Technol, Dept Elect & Elect Engr, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** leninpugal@skct.edu.in; trjana2498@gmail.com; 15tuee150@skct.edu.in; mamtha1814@gmail.com; 15tuee120@skct.edu.in; Senthilkumar.r@skct.edu.in

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ**ISSN:** 2469-5556**ISBN:** 978-1-5386-9533-3**29-char Source Abbrev.:** INT CONF ADVAN COMPU**Source Item Page Count:** 6**Output Date:** 2020-01-07**Record 161 of 250****Title:** Fingerprint-Based Support Vector Machine for Indoor Positioning System**Author(s):** Malar, ACJ (Malar, A. Christy Jeba); Kousalya, G (Kousalya, Govardhan)**Edited by:** Panigrahi BK; Trivedi MC; Mishra KK; Tiwari S; Singh PK**Source:** SMART INNOVATIONS IN COMMUNICATION AND COMPUTATIONAL SCIENCES, VOL 2 **Book Series:** Advances in Intelligent Systems and Computing **Volume:** 670 **Pages:** 289-298 **DOI:** 10.1007/978-981-10-8971-8\_26 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Bahl P., 2000, Proceedings IEEE INFOCOM 2000. Conference on Computer Communications. Nineteenth Annual Joint Conference of the IEEE Computer and Communications Societies (Cat. No.00CH37064), P775, DOI 10.1109/INFCOM.2000.832252

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**Cited Reference Count:** 15

**Abstract:** The position of a movable object is required in an indoor environment for providing various business interest services and for emergency services. The techniques implemented on WLAN (802.11b Wireless LANs) endow with more ubiquitous (Feng et al. in IEEE Trans Mob Comput 12(12), 2012, [1]) within the environment and the requirement for additional hardware is not necessary, thereby reducing infrastructure cost and enhancing the value of wireless data network. The received signal strength (RSS) from various reference points (RP) were recorded by a tool and fingerprint radio map is constructed. The signal property of a fingerprint will differ in each point. The location can be found by comparing the current signal strength with already collected radio maps. Almost all indoor environments are equipped with Wi-Fi devices. No additional hardware is required for the setup. In this paper, we introduce SVM classifier (Roos et al. in IEEE Trans Mob Comput 1 (1), 59-69, 2002 [2]) as a methodology with minimum cost and without scarifying accuracy. The obtained results show minimal location error and accurate location of the object.

**Accession Number:** WOS:000481921300026**Language:** English**Document Type:** Proceedings Paper**Conference Title:** International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS)**Conference Date:** JUN 23-24, 2017**Conference Location:** Moga, INDIA**Conference Sponsors:** N W Grp Inst**Author Keywords:** Pervasive computing; Received signal strength; Indoor positioning; Support vector machine**Addresses:** [Malar, A. Christy Jeba] Sri Krishna Coll Technol, Coimbatore, Tamil Nadu, India.

[Kousalya, Govardhan] Coimbatore Inst Technol, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Malar, ACJ (reprint author), Sri Krishna Coll Technol, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** a.christyjebamalar@sket.edu.in; kousir@gmail.com**Publisher:** SPRINGER INTERNATIONAL PUBLISHING AG**Publisher Address:** GEWERBESTRASSE 11, CHAM, CH-6330, SWITZERLAND**Web of Science Categories:** Computer Science, Artificial Intelligence; Telecommunications**Research Areas:** Computer Science; Telecommunications**IDS Number:** BN4IO**ISSN:** 2194-5357**eISSN:** 2194-5365**ISBN:** 978-981-10-8971-8; 978-981-10-8970-1**29-char Source Abbrev.:** ADV INTELL SYST**Source Item Page Count:** 10**Output Date:** 2020-01-07**Record 162 of 250****Title:** Metaheuristic-Based Virtual Machine Task Migration Technique for Load Balancing in the Cloud**Author(s):** Megharaj, G (Megharaj, Geetha); Kabadi, MG (Kabadi, Mohan G.)**Edited by:** Krishna AN; Srikantaiah KC; Naveena C**Source:** INTEGRATED INTELLIGENT COMPUTING, COMMUNICATION AND SECURITY **Book Series:** Studies in Computational Intelligence **Volume:** 771 **Pages:**

435-446 DOI: 10.1007/978-981-10-8797-4\_45 Published: 2019

Times Cited in Web of Science Core Collection: 0

Total Times Cited: 0

Usage Count (Last 180 days): 0

Usage Count (Since 2013): 0

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Cited Reference Count: 27

**Abstract:** Cloud service centers require an efficient load balancing strategy to reduce the excessive workload on some virtual machines (VM). The VM migration technique, which achieves migration of overloaded VM from one physical machine to another, is quite popular. This technique consumes excessive time and monetary cost. Instead of migrating actual VM, migrating the extra tasks of overloaded VM has been found to be more beneficial with respect to time and cost (Ramezani et al. in International Journal of Parallel Programming 42: 739-754, 2014, [1]). The task migration technique does not pause the overloaded VM, and the VM pre-copy process is not involved. This technique also provides other advantages such as elimination of VM downtime, no loss of customers' recorded activities, and better quality of service (QoS) to the customer. The VM task migration technique presented in (Ramezani et al. International Journal of Parallel Programming 42: 739-754, 2014, [1]), utilizes an ineffective discriminant function to identify overloaded VM. This discriminant function may falsely identify non-overloaded VM as overloaded VM. In this chapter, a new discriminant function is designed to identify actual overloaded VM. Cost functions are designed to model the actual cost of performing task migration. A particle swarm optimization (PSO) technique is proposed to search for efficient task migration strategies. The proposed technique PSOVm is simulated in MATLAB, and the results are compared with a contemporary technique (Ramezani et al. in International Journal of Parallel Programming 42: 739-754, 2014, [1]). The simulated results exhibit greater effectiveness of the proposed technique in identifying actual overloaded VM for task migration.

Accession Number: WOS:000461108300045

Language: English

Document Type: Article; Book Chapter

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Source Item Page Count: 12

Book DOI: 10.1007/978-981-10-8797-4

Output Date: 2020-01-07

Record 163 of 250

Title: Experimental Investigations into Performance Evaluation of Thermosyphon Solar Heating System Using Modified PCM Modules

Author(s): Naveen, TK (Naveen, T. K.); Jagadesh, T (Jagadesh, T.)

Edited by: Saha P; Subbarao PMV; Sikarwar BS

Source: ADVANCES IN FLUID AND THERMAL ENGINEERING Book Series: Lecture Notes in Mechanical Engineering Pages: 211-221 DOI: 10.1007/978-981-13-6416-7\_20 Published: 2019

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**Cited References:** Castell A, 2008, APPL THERM ENG, V28, P1676, DOI 10.1016/j.applthermaleng.2007.11.004  
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**Cited Reference Count:** 17

**Abstract:** The demand for effective and efficient use of solar heating arrangement is increasing in domestic and industrial applications. The existing renewable energy resources are intermittent and fluctuate depending upon the meteorological conditions. So, the main aim of this present work is to develop thermosyphon solar heating system for improving the performance using modified phase change material (PCM) modules. Paraffin wax material is used as PCM for holding the heat energy to attain an effective solar fraction. A detailed stratification experimental analysis for heat energy accumulation tank has been carried out on without PCM, PCM without fins, PCM with ring type fins and spiral fins. An hourly based charging and discharging efficiency are also calculated for the above cases and compared. All the experiments are carried out three times and average values are taken for the analysis. From the results measured experimentally, it is inferred that the discharging time of solar water heating system with cylindrical PCM ring type fins is 3 h more than without PCM. The discharging time of solar water heating system with cylindrical PCM took 7 h more than without PCM. The charging energy efficiency of heat energy accumulation tank with cylindrical PCM ring type and PCM in spiral module fins confers better results than cylindrical PCM and without PCM. This shows that the PCM get better stratification time and increases the overall performance of solar water heating system.

**Accession Number:** WOS:000493798600020

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 1st International Conference on Future Learning Aspects for Mechanical Engineering (FLAME)

**Conference Date:** OCT 03-05, 2018

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**Conference Sponsors:** Amity Univ, Dept Mech Engr

**Author Keywords:** Solar; Paraffin wax; Stratification number; Charging efficiency

**KeyWords Plus:** THERMAL-ENERGY STORAGE

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| Krishnan, Naveen | AAF-7511-2019               |                     |
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| Krishnan, Naveen |                             | 0000-0002-2279-2948 |

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**Record 164 of 250**

**Title:** Design and Optimization of Rectangular Patch Antenna Based on FR4, Teflon and Ceramic Substrates

**Author(s):** Pandian, MK (Pandian, Manickam Karthigai); Chinnadurai, T (Chinnadurai, Thangam)

**Source:** RECENT ADVANCES IN ELECTRICAL & ELECTRONIC ENGINEERING **Volume:** 12 **Issue:** 4 **Pages:** 368-373 **DOI:** 10.2174/2352096511666180705121554 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 1

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**Cited References:** Afridi M. A., 2015, BIOL CHEM RES, P128

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**Cited Reference Count:** 26

**Abstract:** Background: Modern communication devices are very much dependent on the operation of low profile antennas. The objective of this paper is to perform the design and simulation of a rectangular microstrip patch antenna at a resonant frequency of 9.5 GHz.

**Methods:** Design of the antenna is given with various substrates like FR4, Teflon and Ceramic substrates at the desired frequency. For each substrate, the performance of the antenna is measured in terms of its return loss and Voltage Standing Wave Ratio (VSWR).

**Results:** Ansoft High-Frequency Structure Simulator is used to simulate the antenna characteristics.

**Conclusion:** Performance characteristics of the antenna with three different substrates are compared to identify the substrate that provides the accurate return loss and VSWR.

**Accession Number:** WOS:000483319400009

**Language:** English

**Document Type:** Article

**Author Keywords:** Ceramic; frequency; FR4; HFSS; microstrip patch antenna; teflon

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**ISO Source Abbrev.:** Recent. Adv. Electr. Electron. Eng.

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**Record 165 of 250**

**Title:** Design of Portable Land Parameter Measuring Device

**Author(s):** Prabhu, SG (Prabhu, Ganesh S.); Abirami, P (Abirami, P.); Akalya, M (Akalya, M.); Agalya, E (Agalya, E.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 357-359 **Published:** 2019

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**Usage Count (Last 180 days):** 0

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**Cited References:** Alsharif MA, 2017, MED C CONTR AUTOMAT, P1023, DOI 10.1109/MED.2017.7984252

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Ononiwu G., 2016, J COMPUTER COMMUNICA, V04, P1

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Primicerio J, 2012, PRECIS AGRIC, V13, P517, DOI 10.1007/s11119-012-9257-6

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Yallappa D, 2017 IEEE GLOB HUM T, DOI [10.1109/GHTC.2017.8239330, DOI 10.1109/GHTC.2017.8239330]

**Cited Reference Count:** 12

**Abstract:** In today's world, everyone has developed a great interest towards automation. Automation in agriculture was a big dream for many farmers, It is achieved with the help of drones. The main concept of our paper is to reduce farmer's time and increase the yield by implementing IOT in the field. It checks the moisture level in the soil and the values are viewed by farmer in his mobile. When the value reaches the threshold automatically the motor pump switches ON for particular time. This method saves farmers from getting health issues due to spraying fertilizers/pesticides. A submersible motor is used and controlled by allotting a channel in the transmitter of the drone. The soil moisture sensor is attached to the drone so as to send continuous data to the farmer using Blynk to his mobile, this sensor data also control the motor which is attached to another microcontroller. In future this device can be implemented to monitor the crops autonomously with the help of GPS.

**Accession Number:** WOS:000477742500077

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Automation; drones; IOT; Blynk; microcontroller; GPS

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

**IDS Number:** BN2TJ

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**Record 166 of 250**

**Title:** Detection of pH value and Pest control for eco-friendly agriculture

**Author(s):** Priyadarsini, J (Priyadarsini, J.); Karthick, BN (Karthick, B. Naveen); Karthick, K (Karthick, K.); Karthikeyan, B (Karthikeyan, B.); Mohan, S (Mohan, S.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 801-804 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

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**Cited References:** Anandakumar H, 2018, COMPUT ELECTR ENG, V71, P925, DOI 10.1016/j.compeleceng.2017.09.016

Anandakumar H, 2017, CLUSTER COMPUT, V20, P1505, DOI 10.1007/s10586-017-0798-3

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**Cited Reference Count:** 9

**Abstract:** The paper represents a smart device to show the harmful effects of pest bugs in the harvesting land and pH level in the water bodies. Different frequencies of ultrasonic waves are produced by this which are very helpful to repel different types of insects. To reduce the cost spent on pesticides. The great reduction of bugs can be noted if we implement this device in harvesting land and we can avoid using pesticides.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

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**Conference Location:** Coimbatore, INDIA

**Addresses:** [Priyadarsini, J.; Karthick, B. Naveen; Karthick, K.; Karthikeyan, B.; Mohan, S.] Sri Krishna Coll Technol, Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

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**Record 167 of 250****Title:** Advances in Vision based Lane Detection Algorithm Based on Reliable Lane Markings**Author(s):** Priyadharshini, P (Priyadharshini, P.); Niketha, P (Niketha, Pulugurtha); SaanthaLakshmi, K (SaanthaLakshmi, K.); Sharmila, S (Sharmila, S.); Divya, R (Divya, R.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 880-885 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 1**Usage Count (Since 2013):** 1**Cited References:** Cheng Hsu-Yung, EGO LANE POSITION ID, V7, P14378

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Gupta Any, 2018, FRAMEWORK CAMERA BAS, V3

Khaled U, 2017, INT S WIR SYST NETW, P1

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Xing Y, 2018, IEEE-CAA J AUTOMATIC, V5, P645, DOI 10.1109/JAS.2018.7511063

YENIAYDIN Yasin, 2018, P 26 SIGN PROC COMM, P1

**Cited Reference Count:** 10**Abstract:** This paper advances in a vision based driver assistance system for effective lane detection Technique. First method involves image processing technique initially to convert the Red, green and blue (RGB) into grayscale images takes place by removing the effects of shades and immersion data of the images by maintaining the brightness of the images. Then to remove the sound available in the images and the obtained video is allowed to pass through the Gaussian filter in-order to remove sound from the images. The edges recognition is an important function to identify and detect the sharp break in an image by canny edge detection algorithm. Then Hough transform technique is applied to obtain the image pixels in the form of long straight line in the Hough space. So we can detect the lane if the vehicle tends to deviate from the lane in a complex situation and take corrective measures to change the lane.**Accession Number:** WOS:000477742500189**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)**Conference Date:** MAR 15-16, 2019**Conference Location:** Coimbatore, INDIA**Author Keywords:** vision based driver assistance system; Gaussian blur filter; canny edge detection algorithm; Hough Transforms**Addresses:** [Priyadharshini, P.; Niketha, Pulugurtha; SaanthaLakshmi, K.; Sharmila, S.; Divya, R.] Sri Krishna Coll Technol, Elect & Elect Engr, Coimbatore, Tamil Nadu, India.**Reprint Address:** Priyadharshini, P (reprint author), Sri Krishna Coll Technol, Elect & Elect Engr, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** Sripriyadharshini1997@gmail.com; nikethadevi1997@gmail.com; saanthakamesh@gmail.com; sharmilasenthilkumar.1997@gmail.com; divya.r@skct.edu.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic**Research Areas:** Engineering**IDS Number:** BN2TJ**ISSN:** 2469-5556

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**Record 168 of 250****Title:** Integration of Clock Gating and Power Gating in Digital Circuits**Author(s):** Rachel, NAS (Rachel, Agnes Shiny N.); Fahimunnisha, B (Fahimunnisha, B.); Akilandeswari, S (Akilandeswari, S.); Venula, SJ (Venula, Joyes S.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 704-707 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Agrawal Switch Anuj, 2017, INT J ELECT ELECT CO, V6

ARAUJO CM, 2014, IOSR J VLSI SIGNAL P, V4, DOI DOI 10.1038/SREP04686

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**Cited Reference Count: 12**

**Abstract:** In integrated circuits, clocking system consumes a colossal portion of chip power, which includes switching activities of flip-flops, latches, clock distribution networks. Power gating and clock gating are two of the most effective techniques that is applied today for reducing dynamic and leakage power, respectively, in digital CMOS circuits. Power gating is essentially for reducing leakage power by switching off power supply to the nonoperational power domain of the chip during certain mode of operation. Header and footer switches, isolation cells and State Retention Flip Flops (SRFFs) used for implementing power gating. Clock gating is for reducing dynamic power by controlling switching activities on the clock path. Generally, Gate, Latch, or FF based clock gating cells used for implementing clock gating. The combined use of the two solutions, however, possess some challenges in terms of practical integration of the required control logics and power/timing overhead associated to it. Here we present an analysis in Cadence virtuoso tool using 90nm technology using a simple PIPO (parallel in parallel out) shift register. This project specifically targets the combined application of clock and power gating techniques.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** dynamic power; leakage power; digital CMOS circuit; switching activities; power overhead

**Addresses:** [Rachel, Agnes Shiny N.; Fahimunnisha, B.; Akilandeswari, S.; Venula, Joyes S.] Sri Krishna Coll Technol, Dept Elect & Commun Engr, Coimbatore, Tamil Nadu, India.

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**Record 169 of 250**

**Title:** YIELDING POWER FROM DISSIPATION OF DENSE MATERIALS

**Author(s):** Rajangam, K (Rajangam, K.); Mithra, M (Mithra, M.); Monisa, B (Monisa, B.); Monisha, S (Monisha, S.); Oveya, T (Oveya, T.); Balraj, B (Balraj, B.)

**Book Group Author(s):** IEEE

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**Cited References:** Curry Nadhan, 2009, IEEE

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Eason G., 1955, PHIL T

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**Cited Reference Count:** 6

**Abstract:** In countries like India, 0.8 kg wastes are being produced by each person daily in metro cities. There are some technologies for generating energy and for other useful things from MSW. But 60-90% of MSW are disposed off directly into lands and water which causes pollution. This waste management is being challenged and inadequate in Indian cities. Due to the increase in population the demand for electricity also increases. Apart from solid wastes there are another wastes with high percent disposal is FVW (Food Vegetable Wastes). Distribution of power to the users obtained from fossil fuels is more expensive and not eco-friendly in nature. By the process of ignition and decomposition we impart for producing electricity and managing wastes. In this the power is obtained directly from the wastes itself.

**Accession Number:** WOS:000477742500186

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Municipal solid waste; food vegetable waste; waste management; biomethagreen gas; power generation

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| Baskaran, Balraj | M-7785-2017                 | 0000-0002-1829-7872 |

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

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**Record 170 of 250**

**Title:** alpha-Phase retrieval frame in Hilbert space and its application

**Author(s):** Rajupillai, K (Rajupillai, K.); Palaniammal, S (Palaniammal, S.)

**Source:** MATHEMATICS AND COMPUTERS IN SIMULATION **Volume:** 155 **Special Issue:** SI **Pages:** 269-276 **DOI:** 10.1016/j.matcom.2018.05.005 **Published:** JAN 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Balan R, 2006, APPL COMPUT HARMON A, V20, P345, DOI 10.1016/j.acha.2005.07.001  
Balan R, 2015, APPL COMPUT HARMON A, V38, P469, DOI 10.1016/j.acha.2014.07.003  
Bandeira AS, 2014, APPL COMPUT HARMON A, V37, P106, DOI 10.1016/j.acha.2013.10.002  
CAHILL J., 2016, T AM MATH SOC B, V3, P63, DOI DOI 10.1090/BTRAN/12  
Cazassa PG, 1997, J FOURIER ANAL APPL, V3, P543, DOI 10.1007/BF02648883  
DAUBECHIES I, 1986, J MATH PHYS, V27, P1271, DOI 10.1063/1.527388  
DUFFIN RJ, 1952, T AM MATH SOC, V72, P341, DOI 10.2307/1990760  
FIENUP JR, 1978, OPT LETT, V3, P27, DOI 10.1364/OL.3.000027  
Hines Taylor, 2011, J SCI COMPUT, P158  
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Oymak S., 2012, INT S INF THEOR, P1473  
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Palaniammal S., 2016, INT J APPL MATH SCI, V10, P214  
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Palaniammal S., 2017, INT J PURE APPL MATH, V116, P131  
SAYRE D, 1952, ACTA CRYSTALLOGR, V5, P843, DOI 10.1107/S0365110X52002276  
Thibault P, 2010, ANNU REV CONDEN MA P, V1, P237, DOI 10.1146/annurev-conmatphys-070909-104034

**Cited Reference Count:** 18

**Abstract:** In the present work, the properties of alpha-phase retrieval frame with a redundant set of vectors under perturbation of the frame set have been discussed. We provided the necessary and sufficient condition to exist in the exact reconstruction using alpha-phase retrieval frame. The deletion of the noise for the reconstructed signal has been discussed. Finally, this paper provided if bounded nonlinear operator L-alpha on infinite dimensional complex Hilbert space is a global phase shift, then Kernel of the operator is spanning a set of the vector. (C) 2018 International Association for Mathematics and Computers in Simulation (IMACS). Published by Elsevier B.V. All rights reserved.

**Accession Number:** WOS:000445888400020

**Language:** English

**Document Type:** Article

**Author Keywords:** Frame; Orthonormal basis; Hilbert space; Phase retrieval; Signal reconstruction

**KeyWords Plus:** RECONSTRUCTION

**Addresses:** [Rajupillai, K.] Govt Coll Technol, Dept Math, Coimbatore 641013, Tamil Nadu, India.  
[Rajupillai, K.] Bharathiar Univ, Res & Dev Ctr, Coimbatore 641046, Tamil Nadu, India.  
[Palaniammal, S.] Sri Krishna Coll Technol, Dept Sci & Humanities, Coimbatore 641042, Tamil Nadu, India.

**Reprint Address:** Rajupillai, K (reprint author), Govt Coll Technol, Dept Math, Coimbatore 641013, Tamil Nadu, India.

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**Publisher:** ELSEVIER SCIENCE BV

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**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Mathematics, Applied

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**29-char Source Abbrev.:** MATH COMPUT SIMULAT

**ISO Source Abbrev.:** Math. Comput. Simul.

**Source Item Page Count:** 8

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**Record 171 of 250**

**Title:** Frame Reconstruction with Noise Reduction in Hilbert space and Application in Communication Systems

**Author(s):** Rajupillai, K (Rajupillai, K.); Palaniammal, S (Palaniammal, S.)

**Source:** MATHEMATICS AND COMPUTERS IN SIMULATION **Volume:** 155 **Special Issue:** SI **Pages:** 324-334 **DOI:** 10.1016/j.matcom.2018.06.014 **Published:** JAN 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 3

**Cited References:** Balan R, 2006, APPL COMPUT HARMON A, V20, P345, DOI 10.1016/j.acha.2005.07.001

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DUFFIN RJ, 1952, T AM MATH SOC, V72, P341, DOI 10.2307/1990760

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Palaniammal S., 2016, INT J APPL MATH SCI, V10, P214

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SAYRE D, 1952, ACTA CRYSTALLOGR, V5, P843, DOI 10.1107/S0365110X52002276

Thibault P, 2010, ANNU REV CONDENSED MATTER PHYS, V1, P237, DOI 10.1146/annurev-conmatphys-070909-104034

**Cited Reference Count:** 20

**Abstract:** In this work, classification for Frame and Fourier coefficient has been discussed. We provided the relation between hidden code coefficients and signal coefficients on  $L_2[-T, T]$  and introduced a theorem that has been proved for recovering the original signal. We provided Key exchange algorithms to store or transmit the information. After decoding, we recovered the filter signal that is less than or equal to original signal with negligible amount of errors. In the last theorem of this paper, we provided a technique to obtain the error to recover the exact information. The application in communication systems for speech signal with low and high frequencies has been discussed at the end. (C) 2018 International Association for Mathematics and Computers in Simulation (IMACS). Published by Elsevier B.V. All rights reserved.

**Accession Number:** WOS:000445888400025

**Language:** English

**Document Type:** Article

**Author Keywords:** Frame; Orthonormal basis; Hilbert space; Signal reconstruction

**Addresses:** [Rajupillai, K.] Govt Coll Technol, Dept Math, Coimbatore 641013, Tamil Nadu, India.

[Palaniammal, S.] Sri Krishna Coll Technol, Dept Sci & Humanities, Coimbatore 641042, Tamil Nadu, India.

**Reprint Address:** Rajupillai, K (reprint author), Govt Coll Technol, Dept Math, Coimbatore 641013, Tamil Nadu, India.

**E-mail Addresses:** rajupillaimathsgct@gmail.com

**Publisher:** ELSEVIER SCIENCE BV

**Publisher Address:** PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Mathematics, Applied

**Research Areas:** Computer Science; Mathematics

**IDS Number:** GV2BG

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**Output Date:** 2020-01-07

**Record 172 of 250**

**Title:** An Innovative Technique Toward the Recognition of Carcinoma Using Classification and Regression Technique

**Author(s):** Sangeetha, M (Sangeetha, M.); Karthikeyan, NK (Karthikeyan, N. K.); Tamijeselv, P (Tamijeselv, P.)

**Edited by:** Panigrahi BK; Trivedi MC; Mishra KK; Tiwari S; Singh PK

**Source:** SMART INNOVATIONS IN COMMUNICATION AND COMPUTATIONAL SCIENCES, VOL 2 **Book Series:** Advances in Intelligent Systems and Computing **Volume:** 670 **Pages:** 69-79 **DOI:** 10.1007/978-981-10-8971-8\_7 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Abdul Khaleel Mohammed, 2013, INT J ADV RES COMPUT, V3

Ahmad P., 2015, INT J COMPUTER APPL, V120

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Pinky Patel, 2015, INT J EMERGING TECHN, V5  
Sathish L., 2012, INT J ADV RES COMPUT, V2  
Tewary Gaurab, 2015, INT J DATA MINING KN, V5  
Zhong Wenyan, 2017, BIOSTATISTICS BIOMET, V1

Cited Reference Count: 11

**Abstract:** Usually, the nature of a human body is that the cells start to develop, grow, live for some time, and die after a certain period of time. This phenomenon proceeds until the life span. But instead of this normal phenomenon, if the cells grow abundantly, then they end in carcinoma. Cancer cells destroy the entire functioning of the body. If cancer is found in the preliminary stage, then the extent of life span has been guaranteed to some extent. Existing categorization techniques do not provide exact classification results. Here, this work used the standard leukemia dataset for categorizing the cancer cells and non-cancer cells. Missed values are replaced through enhanced independent component analysis method. Further best features are selected through geometric particle swarm optimization. As a last step, cancer cells are categorized through classification and regression technique.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS)

**Conference Date:** JUN 23-24, 2017

**Conference Location:** Moga, INDIA

**Conference Sponsors:** N W Grp Inst

**Author Keywords:** Bi-clustering Bayesian principal component analysis (Bi-BPCA); Decision tree; Classification and regression technique

**Addresses:** [Sangeetha, M.] Sri Krishna Coll Technol, IT Dept, Coimbatore 641042, Tamil Nadu, India.

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| Author          | Web of Science ResearcherID | ORCID Number |
|-----------------|-----------------------------|--------------|
| P, Tamije Selvy | T-3768-2019                 |              |

**Publisher:** SPRINGER INTERNATIONAL PUBLISHING AG

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**Research Areas:** Computer Science; Telecommunications

**IDS Number:** BN4IO

**ISSN:** 2194-5357

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**ISBN:** 978-981-10-8971-8; 978-981-10-8970-1

**29-char Source Abbrev.:** ADV INTELL SYST

**Source Item Page Count:** 11

**Output Date:** 2020-01-07

Record 173 of 250

**Title:** Web Monitoring And Speed Control Of Solar Based Bldc Motor With Tot

**Author(s):** Saranya, R (Saranya, R.); Punithavalli, R (Punithavalli, R.); Nandakumar, E (Nandakumar, E.); Priya, R (Priya, R.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 808-812 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Brown CD, 2015, IEEE T IND APPL, V51, P1864, DOI 10.1109/TIA.2014.2344506

Chen SH, 2017, IEEE T IND ELECTRON, V64, P8607, DOI 10.1109/TIE.2017.2698373

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Valle RL, 2017, IET ELECTR POWER APP, V11, P688, DOI 10.1049/iet-epa.2016.0421

Veni KSK, 2017, PROCEEDINGS OF 2017 IEEE INTERNATIONAL CONFERENCE ON ADVANCES IN ELECTRICAL TECHNOLOGY FOR GREEN ENERGY (ICAETGT), P7, DOI 10.1109/ICAETGT.2017.8341453

**Cited Reference Count:** 10

**Abstract:** This Project Proposes the Web Monitoring of Solar based Brushless Direct Current(BLDC)motor and its Speed control is done with Closed loop Technique. Brushless DC motor is an emerging trend in Industrial Applications due to its domination over the motors with Counterparts. The hardware setup is made with Solar Panel, a part of Controller board and a part of Inverter board, along with MPPT algorithm and MOSFET driver circuit and a Communication module. The BLDC motor speed can be controlled with low cost PIC microcontroller 16F877a. We have employed PIC microcontroller and programmed with

Embedded C in order to vary the duty cycle of motor. The Communication module which is used in order to monitor the working state of the machine is done with Internet of Things (IoT). The Industrial Persons can monitor the parameters using IOT provided with Unique Login credentials which comes under the proposed system.

**Accession Number:** WOS:000477742500175

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** ToT; BLDG motor; PWM; MPPT algorithm; PIC 16F877a

**Addresses:** [Saranya, R.; Punithavalli, R.; Nandakumar, E.; Priya, R.] Sri Krishna Coll Technol, Dept Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

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| NANDAKUMAR, E | Y-9496-2019                 | 0000-0003-4649-7887 |

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

**Research Areas:** Engineering

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Record 174 of 250

**Title:** Photovoltaic array reconfiguration to extract maximum power under partially shaded conditions

**Author(s):** Saravanan, S (Saravanan, S.); Kumar, RS (Kumar, R. Senthil); Prakash, A (Prakash, A.); Chinnadurai, T (Chinnadurai, T.); Tiwari, R (Tiwari, Ramji); Prabaharan, N (Prabaharan, N.); Babu, BC (Babu, B. Chitti)

**Edited by:** Chauhan RK; Chauhan K

**Source:** DISTRIBUTED ENERGY RESOURCES IN MICROGRIDS: INTEGRATION, CHALLENGES AND OPTIMIZATION **Pages:** 215-241 **DOI:** 10.1016/B978-0-12-817774-7.00008-9 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Alonso-Garcia MC, 2006, SOL ENERG MAT SOL C, V90, P329, DOI 10.1016/j.solmat.2005.04.022  
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**Cited Reference Count:** 31

**Accession Number:** WOS:000487693500009

**Language:** English**Document Type:** Article; Book Chapter**KeyWords Plus:** PARTIAL SHADING CONDITIONS; PV ARRAY; TRACKING; OPTIMIZATION; SCHEME**Addresses:** [Saravanan, S.; Kumar, R. Senthil; Prakash, A.] Sri Krishna Coll Technol, Dept EEE, Coimbatore, Tamil Nadu, India.

[Chinnadurai, T.] Sri Krishna Coll Technol, Dept ICE, Coimbatore, Tamil Nadu, India.

[Tiwari, Ramji] Bharat Inst Engr &amp; Technol, Dept EEE, Hyderabad, Telangana, India.

[Prabaharan, N.] SASTRA Deemed Univ, Sch Elect &amp; Elect Engr, Thanjavur, India.

[Babu, B. Chitti] Indian Inst Informat Technol Design &amp; Mfg, Dept Elect Engr, Chennai, Tamil Nadu, India.

**Reprint Address:** Saravanan, S (reprint author), Sri Krishna Coll Technol, Dept EEE, Coimbatore, Tamil Nadu, India.**Publisher:** ACADEMIC PRESS LTD-ELSEVIER SCIENCE LTD**Publisher Address:** 125 LONDON WALL, LONDON EC2Y 5AS, ENGLAND**Web of Science Categories:** Energy & Fuels**Research Areas:** Energy & Fuels**IDS Number:** BN7TZ**ISBN:** 978-0-12-817775-4; 978-0-12-817774-7**Source Item Page Count:** 27**Output Date:** 2020-01-07**Record 175 of 250****Title:** Random restart local search optimization technique for sustainable energy-generating induction machine**Author(s):** Selvam, PP (Selvam, Ponnurugan Panneer); Narayanan, R (Narayanan, Rengarajan)**Source:** COMPUTERS & ELECTRICAL ENGINEERING **Volume:** 73 **Pages:** 268-278 **DOI:** 10.1016/j.compeleceng.2018.11.023 **Published:** JAN 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 3**Cited References:** Ahmadi MH, 2016, INT J AMBIENT ENERGY, V37, P363, DOI 10.1080/01430750.2014.973121

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**Cited Reference Count:** 24

**Abstract:** The goal focused upon is efficiency optimization of an induction machine, using a Random Restart Local Search Optimization technique. Recently, many studies have been designed to boost the operation efficiency of induction machines using optimization techniques, but the existing techniques have failed in the efficiency enhancement of induction machine design. To resolve this efficiency problem, a Hill Climbing Based Local Search Optimization technique was designed. Initially, IM data are collected, and the random restart local search optimization is implemented to formulate four objective functions. After the objective function calculation, the value obtained is compared to a threshold value using the continuous hill climbing algorithm. Finally, the optimal induction machine data set with the highest efficiency is selected for designing the induction machine. The proposed method is compared to state-of-the-art methods. (C) 2018 Elsevier Ltd. All rights reserved.

**Accession Number:** WOS:000458593900021**Language:** English**Document Type:** Article**Author Keywords:** Induction machine; Electromagnetic induction; Random restart local search optimization; Hill climbing; Threshold condition; Power factor; Objective function**KeyWords Plus:** MULTIOBJECTIVE OPTIMIZATION; MOTOR; DESIGN; REFRIGERATOR; PERFORMANCE; EFFICIENCY**Addresses:** [Selvam, Ponnurugan Panneer] Sri Krishna Coll Technol, Dept Elect & Elect Engr, Fac Elect & Elect Engr, Coimbatore 638005, Tamil Nadu, India.

[Narayanan, Rengarajan] Nandha Engr Coll, Dept Elect &amp; Elect Engr, Fac Elect &amp; Elect Engr, Erode, Tamil Nadu, India.

**Reprint Address:** Selvam, PP (reprint author), Sri Krishna Coll Technol, Dept Elect & Elect Engr, Fac Elect & Elect Engr, Coimbatore 638005, Tamil Nadu, India.**E-mail Addresses:** murugan.pmsm@gmail.com**Publisher:** PERGAMON-ELSEVIER SCIENCE LTD**Publisher Address:** THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND**Web of Science Categories:** Computer Science, Hardware & Architecture; Computer Science, Interdisciplinary Applications; Engineering, Electrical & Electronic

**Research Areas:** Computer Science; Engineering  
**IDS Number:** HL3DU  
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**ISO Source Abbrev.:** Comput. Electr. Eng.  
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**Record 176 of 250****Title:** REAL TIME BUS TRACKING AND LOCATION UPDATION SYSTEM**Author(s):** Shree, AD (Shree, A. Deebika); Anusuya, J (Anusuya, J.); Malathy, S (Malathy, S.)**Book Group Author(s):** IEEE**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 242-245 **Published:** 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 3**Usage Count (Since 2013):** 3**Cited References:** Ingle Darshan, 2015 5 INT C COMM SY

Ingle Darshan, 2 INT C EL COMM AER

Jahan Nusrath, 2017 4 INT C ADV EL

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Singla Leeza, IEEE INT C COMP COMM

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**Cited Reference Count:** 10

**Abstract:** Public transportation system plays a major role in every aspect of life. It has a greater impact on economic development of the country. Tracking, monitoring, scheduling, alert services are the major challenges faced by this system. Currently, major services of this system are manually operated which are approximate and ease of access is denied to the people. This project aims in automating the services of the system that can provide the real time tracking experience of the public transport buses. The buses will be having RFID tags within them and RFID readers will be placed in every bus stops. Arduino serves as the central controller for this system. GSM module will be used to send the tracking messages to the authorized persons for continuous monitoring. GPS is used for getting the location of the buses. Users will be getting the bus tracking details as notifications in their mobiles through IoT. The inputs from RFID readers are continuously updated to Arduino for processing the data. The processed data is sent to the cloud which serves as the interface between the user and the system.

**Accession Number:** WOS:000477742500053**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)**Conference Date:** MAR 15-16, 2019**Conference Location:** Coimbatore, INDIA**Author Keywords:** Public transportation system; Radio Frequency Identification (RFID); Global System for Mobile Communication (GSM); Internet of Things (IoT); Global Positioning System (GPS)**Addresses:** [Shree, A. Deebika; Anusuya, J.; Malathy, S.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.**Reprint Address:** Shree, AD (reprint author), Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** 15tuec033@skct.edu.in; 15tuec017@skct.edu.in; malathy.s@skct.edu.in**Author Identifiers:**

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| Subramaniam, Malathy |                             | 0000-0002-5345-1900 |

**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic**Research Areas:** Engineering**IDS Number:** BN2TJ**ISSN:** 2469-5556**ISBN:** 978-1-5386-9533-3**29-char Source Abbrev.:** INT CONF ADVAN COMPU**Source Item Page Count:** 4**Output Date:** 2020-01-07**Record 177 of 250****Title:** COMPUTATIONAL RESEARCH ON SENSING MECHANISM OF NANO-METAL DOTS BASED LIQUID FILLED FIBER**Author(s):** Srinivasan, K (Srinivasan, K.); Addanki, S (Addanki, S.); Chandrasekharan, N (Chandrasekharan, N.)**Source:** DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES **Volume:** 14 **Issue:** 1 **Pages:** 161-165 **Published:** JAN-MAR 2019**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 1

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**Cited Reference Count:** 7

**Abstract:** A temperature sensor of liquid (Chloroform) filled fiber based on monometallic gold nanodots is investigated and its numerical study is analyzed using Finite Element Method (FEM). The sensitivity is obtained by coupling mechanism between the liquid-filled modes and the Plasmon modes. The interaction place of two different modes gives the maximum resonance of loss spectra over the wavelength range from 900nm to 1150nm keeping the range of temperature from 20 degrees C to 60 degrees C with steps of 20 degrees C. The loss spectra of the proposed asymmetric structure at different temperatures exploited its sensitivity which is about 2.03 nm/degrees C and 1.8703 nm/degrees C for x - & y - polarization. Hence it shows that the resonance peak of x polarization provides much better wavelength shift than y polarization which makes it suitable for detecting the temperature over the wavelength range of 900 nm to 1150 nm.

**Accession Number:** WOS:000463356800021

**Language:** English

**Document Type:** Article

**Author Keywords:** Nanodots; Finite Element Method; Resonance; Sensitivity

**Addresses:** [Srinivasan, K.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

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|-----------------|-----------------------------|---------------------|
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**Publisher:** INST MATERIALS PHYSICS

**Publisher Address:** NATL INST R&D MATERIALS PHYSICS, ATOMISTILOR STR, 105 BIS, BUCHAREST, 077125, ROMANIA

**Web of Science Categories:** Nanoscience & Nanotechnology; Materials Science, Multidisciplinary

**Research Areas:** Science & Technology - Other Topics; Materials Science

**IDS Number:** HR7TC

**ISSN:** 1842-3582

**29-char Source Abbrev.:** DIG J NANOMATER BIOS

**ISO Source Abbrev.:** Dig. J. Nanomater. Biostruct.

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**Output Date:** 2020-01-07

**Record 178 of 250**

**Title:** SMART CAR PARKING USING IMAGE PROCESSING

**Author(s):** Sunmathi, S (Sunmathi, S.); Sandhya, M (Sandhya, M.); Sumitha, M (Sumitha, M.); Kirthika, A (Kirthika, A.)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 485-487 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Bachhava Jayakshei Dadaji, 2017, INT RES J ENG TECHNO, V04

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Zhou FL, 2014, INT SYMP DISTR COMPU, P268, DOI 10.1109/DCABES.2014.58

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Khanna Abhirup, 2016 INT C IOT APPL

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**Abstract:** With the rapid increases in the usage of vehicles in recent years, finding a parking area is more difficult, which leads to practical conflicts such as traffic congestion. In this paper, a solid system is used to identify a free slot in a parking area and keep the record of vehicles which are parked. It is very useful for the drivers to find a free slot before they reach their destination and to calculate a parking charge while leaving the parking area. In this system, sensors identify the free slots, a vehicle is identified using image processing, and the parking charge for each vehicle is detected on the basis of the time that the vehicle is in the parking area.

**Accession Number:** WOS:000477742500103

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Internet of things; Image processing; Wi-Fi module; Infrared sensor

**Addresses:** [Sunmathi, S.; Sandhya, M.; Sumitha, M.; Kirthika, A.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Sunmathi, S (reprint author), Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

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**Record 179 of 250**

**Title:** Light Weight Security Framework for IoT

**Author(s):** Thenmozhi, S (Thenmozhi, S.); Ranjitha, JB (Ranjitha, J. Bala); Anu, S (Anu, S.); Soniya, AJ (Soniya, A. Jasmine)

**Book Group Author(s):** IEEE

**Source:** 2019 5TH INTERNATIONAL CONFERENCE ON ADVANCED COMPUTING & COMMUNICATION SYSTEMS (ICACCS) **Book Series:** International Conference on Advanced Computing and Communication Systems **Pages:** 546-549 **Published:** 2019

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**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Ali ST, 2014, IEEE T INF FOREN SEC, V9, P2193, DOI 10.1109/TIFS.2014.2357998

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Thenmozhi S., 2014, INT J COMPUTER NETWO, V4

Wang QX, 2017, IEEE ACCESS, V5, P4018, DOI 10.1109/ACCESS.2017.2678510

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Zeng Bohan, 2013, 2013 IEEE International Conference on Green Computing and Communications (GreenCom) and IEEE Internet of Things (iThings) and IEEE Cyber, Physical and Social Computing (CPSCom), P1454, DOI 10.1109/GreenCom-iThings-CPSCom.2013.256

Zhou ZY, 2017, IEEE T VEH TECHNOL, V66, P5256, DOI 10.1109/TVT.2016.2615718

**Cited Reference Count:** 10

**Abstract:** IoT comprises a complex network of smart devices. This complex network consists of large number of nodes. The traditional cryptographic techniques do not provide solution for energy dissipation for IoT nodes. Hence measure should be taken to make sure that the data is secured and efficiently received at the receiving end The RSSI values are used to generate fingerprints. At the server link fingerprints are matched to compute the correlation coefficient The RSSI values are taken from offline database and simulation are performed in MATLAB. The data can be easily forged hence proper security must be taken. A single change in data might cause big problems. Hence to secure the data light-weight protocols are used

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)

**Conference Date:** MAR 15-16, 2019

**Conference Location:** Coimbatore, INDIA

**Author Keywords:** Received Signal Strength Indicator (RSSI); Internet of Things (IoT); link fingerprints; correlation Coefficient; offline database

**Addresses:** [Thenmozhi, S.; Ranjitha, J. Bala; Anu, S.; Soniya, A. Jasmine] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic

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**Record 180 of 250**

**Title:** GPS Based Autonomous Ground Vehicle for Agricultural Utility

**Author(s):** Thenmozhi, S (Thenmozhi, S.); Mahima, V (Mahima, V); Maheswar, R (Maheswar, R.)

**Edited by:** Saini HS; Singh RK; Patel VM; Santhi K; Ranganayakulu SV

**Source:** INNOVATIONS IN ELECTRONICS AND COMMUNICATION ENGINEERING **Book Series:** Lecture Notes in Networks and Systems **Volume:** 33 **Pages:** 143-150 **DOI:** 10.1007/978-981-10-8204-7\_14 **Published:** 2019

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Anupama J, 2014, DESIGN DEV AUTONOMOU, V2

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**Cited Reference Count: 7**

**Abstract:** Farming is a tedious job when carried out manually. With the advent of technology, various researches are done in this field. The innovative idea is to automate the process of seed sowing, to reduce the human labour and to increase the speed with consistent quality. The unmanned mobile robots are employed to serve this purpose. The location of the Autonomous Ground Vehicle in a vast area can be tracked with the help of GPS, and its position can be monitored through a remote device. A prototype has been designed for precise seed sowing process. The inter-seed distance is maintained by the use of servomotor. The vehicle is controlled by ATMEGA328 microcontroller. The direction of the path to be followed is deduced by using a compass module. Speed and accuracy have been the areas of concern while designing the system.

**Accession Number:** WOS:000481892300014

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 6th International Conference on Innovations in Electronics and Communication Engineering (ICIECE)

**Conference Date:** JUL 21-22, 2017

**Conference Location:** Guru Nanak Inst Tech Campus, Dept Elect & Commun Engr, Hyderabad, INDIA

**Conference Host:** Guru Nanak Inst Tech Campus, Dept Elect & Commun Engr

**Author Keywords:** GPS; Autonomous Ground Vehicle; Compass module

**Addresses:** [Thenmozhi, S.; Maheswar, R.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

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**Publisher:** SPRINGER-VERLAG SINGAPORE PTE LTD

**Publisher Address:** 152 BEACH ROAD, #21-01/04 GATEWAY EAST, SINGAPORE, 189721, SINGAPORE

**Web of Science Categories:** Computer Science, Theory & Methods; Imaging Science & Photographic Technology; Telecommunications

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**Output Date:** 2020-01-07

**Record 181 of 250**

**Title:** Design Of Sar-Adc Based Mixed Signal Architecture For Low Power Application

**Author(s):** Thirrunavukkarasu, RR (Thirrunavukkarasu, R. R.); Kirthika, S (Kirthika, S.); Nivetha, N (Nivetha, N.); Renuka, N (Renuka, N.)

**Book Group Author(s):** IEEE

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**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

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**Cited References:** Chen Shih-Lun, 2016, POWER EFFICIENT MIXE

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Wang SJ, 2015, IEEE T INSTRUM MEAS, V64, P888, DOI 10.1109/TIM.2014.2365405

**Cited Reference Count: 5**

**Abstract:** The wearable devices became wide wont to monitor body signals for long health care and residential care applications because of the speedy development of moveable natural philosophy. They sight very important signals through physiological sensors and so transmit them to a cloud info for analysis and watching functions through wireless communication systems. A sensible digitizer (ADC) was accomplished by a mixed-signal application-specific integrated circuit (ASIC) that is intended supported adaptive resolution and lossless compression techniques for graph (ECG) signal watching. The adaptive resolution technique is employed to pick out totally different sampling frequencies of the ADC consistent with amplitude changes within the input signals. Consistent with the characteristic of the signals the sampling clock for the ADC are often adaptively elect. Data compression techniques used are economical methodology to avoid wasting transmission power by reducing the number of knowledge being transmitted over the network. The signal transmission rate has been reduced and maintained high-quality detection and meets the low power consumption of the planning. The ADC application of mixed signal design is implemented using VHDL coding.

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**Language:** English  
**Document Type:** Proceedings Paper  
**Conference Title:** 5th International Conference on Advanced Computing and Communication Systems (ICACCS)  
**Conference Date:** MAR 15-16, 2019  
**Conference Location:** Coimbatore, INDIA  
**Author Keywords:** SAR-ADC; Sampling technique; signal forecasting; Entropy coding; DAC; and VLSL  
**Addresses:** [Thirrunavukkarasu, R. R.; Kirthika, S.; Nivetha, N.; Renuka, N.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.  
**Reprint Address:** Thirrunavukkarasu, RR (reprint author), Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.  
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**Research Areas:** Engineering  
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**Record 182 of 250**  
**Title:** Performances and procedures modules in micro electro mechanical system packaging technologies  
**Author(s):** Amiri, IS (Amiri, Iraj S.); Ariannejad, MM (Ariannejad, M. M.); Vigneswaran, D (Vigneswaran, D.); Lim, CS (Lim, C. S.); Yupapin, P (Yupapin, P.)  
**Source:** RESULTS IN PHYSICS **Volume:** 11 **Pages:** 306-314 **DOI:** 10.1016/j.rinp.2018.09.008 **Published:** DEC 2018  
**Times Cited in Web of Science Core Collection:** 0  
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**Usage Count (Last 180 days):** 1  
**Usage Count (Since 2013):** 1

**Cited References:** Blasquez G, 2001, P 11 INT C SOL STAT, P10  
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**Cited Reference Count:** 25  
**Abstract:** This paper presents the challenging issues in micro electro mechanical system (MEMS) packing technologies. The MEMS package includes a MEMS device and a signal conditioning electronic circuit. In one viewpoint, MEMS application is categorized by the type of sensor, actuator, and structure. MEMS technology applications in general domains are automotive, consumer, industrial, biotechnology and commercial applications. Few methods such as the low power oven, vacuum, and silicon glass packages were discussed. The major technique as die level and wafer level of packing including thin-film packing were reviewed in this paper. The problem of several failure mechanisms and challenges and their solutions were discussed in this review.  
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**KeyWords Plus:** MEMS  
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Record 183 of 250

Title: Domination of intra-pulse Raman scattering over third order dispersion on avoiding in-phase soliton interaction

Author(s): Udaiyakumar, R (Udaiyakumar, R.); Vasudevan, B (Vasudevan, B.); Bhupeshwaran, M (Bhupeshwaran, M.); Vigneswaran, D (Vigneswaran, D.)

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**Abstract:** We have successfully demonstrated the influence of higher order nonlinear effect (HONE) on soliton interaction. The basic feature higher order nonlinear effects are to shift the soliton pulses temporally such that this shifting helps in avoiding the interaction of in-phase soliton pulses. Here we have concentrated on Third order dispersion (TOD) and intra-pulse Raman scattering (IRS) as these effects are dominant in shifting the pulses comparative to other effects. The phase and temporal shifting characteristics of the soliton is analyzed using the Perturbation theory and Method of Moments theory analytically. Similarly, the Split-Step Fourier transform (SSFT) is used to analyze the effect numerically and we have good approximation between the

analytical and numerical studies. Further, finally the influence of these effects on soliton interaction is noted in a single channel telecommunication model and the outputs are characterized by Time domain analyzer (TDA) view and Q-value measurements.

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**Title:** Numerical study on optical properties of non-circular metamaterial optical fiber

**Author(s):** Vasudevan, B (Vasudevan, B.); Ayyadurai, M (Ayyadurai, M.); Maheswar, R (Maheswar, R.); Mahalakshmi, P (Mahalakshmi, P.); Ayyanar (Ayyanar); Amiri, IS (Amiri, Iraj S.)

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**Abstract:** A non-circular core fiber with a metamaterial cladding using gold is proposed. The mode confinement properties of the disclosed fiber are investigated under various metallic (gold) and dielectric (Al2O3) thickness for different wavelengths and different elliptic ratios of 0.8  $\mu$ m and 0.9  $\mu$ m. The parameters like birefringence, confinement loss and dispersion are numerically analyzed theoretically using finite element method (FEM). The overall performance of the proposed fiber is studied and the results show that the fiber exhibits a stable relation between birefringence and confinement loss.

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**Author Keywords:** Metamaterial; AMM cladding; Birefringence; Elliptical core; Confinement loss

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Title: Cut set-based Dynamic Key frame selection and Adaptive Layer-based Background Modeling for background subtraction

Author(s): Jeyabharathi, D (Jeyabharathi, D.); Dejeay (Dejeay)

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Cited Reference Count: 36

**Abstract:** Background subtraction has been widely discussed in video surveillance, but it still has open challenges such as dynamic background, illumination variation. To address these challenges a novel Cut set-based Dynamic Key frame selection (CDK) and Adaptive Layer-based Background Modeling (ALBM) approach for background subtraction is proposed which adaptively changes layers in the background model for each scenario such as static, dynamic background and high illumination.  
The concept of key frame is used to choose representative frames from the video. In order to capture the invariant directional codes of each spatio-temporal patch symmetric operators such as line and rotational symmetry are used. The proposed method identifies highly similar static spatio-temporal patches and

sets it as background there by reducing the computational complexity in the foreground detection step. Both qualitative and quantitative evaluations on challenging video sequences demonstrate that the proposed algorithm performs background subtraction more favorably than the state-of-the-art methods.

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**Author Keywords:** Cut set-based Dynamic Key frame selection; Adaptive Layer-based Background Modeling; Background subtraction; Object tracking

**KeyWords Plus:** PARALLEL FRAMEWORK; DECISION; TRACKING; MOTION

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**Author(s):** Ramesh, S (Ramesh, S.); Gokulakannan, G (Gokulakannan, G.); Natarajan, N (Natarajan, N.); Krishnaraj, V (Krishnaraj, V.)

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Yadav V, 2002, INT J MACH TOOL MANU, V42, P877, DOI 10.1016/S0890-6955(02)00029-9

**Cited Reference Count:** 18

**Abstract:** Wire electrical discharge machine (WEDM) is a non-traditional machining technique for producing parts with higher accuracy Al6061 reinforced with 7% silicon carbide and 3% boron carbide is selected as a work-piece and molybdenum wire as an electrode in this work. The machining in WEDM may result in work-piece surface damage and this is due to the materials thermal properties. The work-piece surface consists of voids, cracks and residual thermal stress after machining due to the spark which is used in machining process. The materials which are machined in WEDM are used in aerospace applications. Particle reinforced aluminium metal matrix composites (Al-MMCs) are used as Fan Exit Guide vane in aerospace gas turbine engine and they are operating at very high temperature. The catastrophic failure may happen due to the availability of thermal damage layer. In this work, the WEDM is modelled based on the finite element method program by using the machining parameters such as voltage, current and pulse on time. In order to reduce the thermal damage layer, the set of parameter which is having the least temperature distribution on the material is analysed. It is determined that, the least temperature distribution over the material results in the least thermal damage layer thickness.

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**Title:** Synthesis and structure characterization of two cadmium coordination polymers based on  $\mu(2)$ -bridging bidentate hydrazine ligand

**Author(s):** Shanthakumar, DS (Shanthakumar, D. Santhosh); Pradeep, R (Pradeep, R.); Subramani, B (Subramani, B.); Sivasankar, BN (Sivasankar, B. N.)

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**Abstract:** Synthesis, single crystal structures, spectral and thermal characteristics of two cadmium coordination polymers, viz.,  $[\text{Cd}(\text{NO}_3)_2(\text{N}_2\text{H}_4)_2]$  (1)  $[\text{Cd}(\text{C}_3\text{H}_2\text{O}_4)(\text{N}_2\text{H}_4)]$  (where  $\text{C}_3\text{H}_2\text{O}_4$  is malonate) (2) are reported. The N-bridging bidentate binding mode of the crystallographically unique hydrazine ligands in (1) leads to a one-dimensional polymeric structure extending along c axis. The central Cd(II) in (2) exhibits hepta-coordination and is bonded to a unique malonate anion which exhibits a  $\mu(3)$ -bridging pentadentate coordination, extending the structure along the a axis. The bridging bidentate binding of the crystallographically independent hydrazine ligand extends along b axis resulting in a 2-D structure.

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**KeyWords Plus:** CRYSTAL-STRUCTURE; MOLECULAR-STRUCTURE; COMPLEXES; CATION; NICKEL(II); COBALT(II); ZINC(II)

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**Record 188 of 250**

**Title:** Ultrasonically welded and non-welded polypropylene and PC-ABS blend thermal analysis

**Author(s):** Chinnadurai, T (Chinnadurai, T.); Prabakaran, N (Prabakaran, N.); Raj, NM (Raj, N. Mohan); Pandian, MK (Pandian, M. Karthigai)

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**Abstract:** Automobile industries are focusing toward the reduction in the weight of vehicle that leading to cost reduction and improving the fuel efficiency. Polymers are the main alternatives in conventional engineering materials for automobile components due to their advanced mechanical and thermal properties. This article is mainly focused on the ultrasonic welding of polypropylene and PC-ABS materials followed by thermal analysis of injection-molded and welded specimens. The materials are examined by an advanced analysis method called differential scanning calorimetry. The crystalline nature of the material is changed (area varies from 95.1 to 115.4 J g(-1)) at injection-molded regions in polypropylene differential scanning calorimetric results. After polypropylene welding, the glass transition temperature values tend to change from 5 to 10 K min(-1) heating ranges. In PC-ABS blend, the glass transition temperature is changed from 126.3 to 127.0 A degrees C in the non-welded material. From the welded PC-ABS material results, it is evident that the difference between 5 and 10 K min(-1) heating value is only 1.8 A degrees C. Finally, the finite element analysis is carried out to examine the materials deformation pattern with temperature loading.

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**Title:** Characterization, antibacterial, anti-arthritis and in-vitro cytotoxic potentials of biosynthesized Magnesium Oxide nanomaterial  
**Author(s):** Balraj, B (Balraj, B.); Senthilkumar, N (Senthilkumar, N.); Potheher, IV (Potheher, I. Vetha); Arulmozhi, M (Arulmozhi, M.)  
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**Abstract:** The spherical shaped Magnesium Oxide (MgO) nanomaterials were synthesized by the extracellular of Streptomyces sp. The Powder X-ray diffraction (PXRD) studies confirms that the particles were follows cubic crystal system and the absorbance peak around 275 nm is showed in UV-Visible spectrum confirms the MgO materials. The presence of the various functional groups in the synthesized material was studied by Fourier Transform Infrared spectroscopy (FTIR) analysis. The abstemious stability of the synthesized material was studied by zeta potential analysis. Morphological studies such as Field Emission Scanning Electron Microscope (FE-SEM) and Transmission Electron Microscopy (TEM) show that the spherical nature of MgO has an average diameter of 25 nm. MgO Nanomaterials have been shown to provide remarkable effects against test cells and microorganisms in the Pharmaceutical field. Conclusive results from antibacterial, anti-arthritis, and anticancer studies were reported and have deduced that they provide remarkable effects.  
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**Abstract:** In this paper, induction machine operation efficiency and torque is improved using Machine Learning based Gene Optimization (ML-GO) Technique is introduced. Optimized Genetic Algorithm (OGA) is used to select the optimal induction machine data. In OGA, selection, crossover and mutation process is carried out to find the optimal electrical machine data for induction machine design. Initially, many number of induction machine data are given as input for OGA. Then, fitness value is calculated for all induction machine data to find whether the criterion is satisfied or not through fitness function (i.e., objective function such as starting to full load torque ratio, rotor current, power factor and maximum flux density of stator and rotor teeth). When the criterion is not satisfied, annealed selection approach in OGA is used to move the selection criteria from exploration to exploitation to attain the optimal solution (i.e., efficient machine data). After the selection process, two point crossovers is carried out to select two crossover points within a chromosomes (i.e., design variables) and then swaps two parent's chromosomes for producing two new offspring. Finally, Adaptive Levy Mutation is used in OGA to select any value in random manner and gets mutated to obtain the optimal value. This process gets iterated till finding the optimal value for induction machine design. Experimental evaluation of ML-GO technique is carried out with performance metrics such as torque, rotor current, induction machine operation efficiency and rotor power factor compared to the state-of-the-art works.

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**Record 191 of 250****Title:** Production and characterization of mechanical and microstructural behaviour of friction stir welded Al6063 composites reinforced with Gr/B4C/SiC particles**Author(s):** Babu, BS (Babu, Suresh B.); Chandramohan, G (Chandramohan, G.); Boopathi, C (Boopathi, C.); Pridhar, T (Pridhar, T.); Srinivasan, R (Srinivasan, R.)**Source:** JOURNAL OF CERAMIC PROCESSING RESEARCH **Volume:** 19 **Issue:** 1 **Pages:** 69-74 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 2**Usage Count (Since 2013):** 5**Cited References:** Al-Fadhalah KJ, 2014, MATER DESIGN, V53, P550, DOI 10.1016/j.matdes.2013.07.062

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**Cited Reference Count:** 16**Abstract:** The present study elucidates the influence of reinforcement particles in friction stir welded aluminium (Al 6063) matrix composites on mechanical properties of the metal matrix composition. Initially composites were successfully fabricated with different weight percentage and combination of reinforcements (graphite (gr), B4C and SiC) through stir casting technique. All sets of composite specimen were welded through solid state joining process of friction stir welding technique, the parameters such as tool rotational speed (800, 1000 and 1200 rpm), welding speed (20 and 40 mm/min) and axial loading (10 and 20 kN) are taken for characterization of fabricated composites. The effects of friction stir welding parameters were examined by mechanical and microstructural characterizations. The composites microstructure and dispersion of particle reinforcements were analysed through optical microscope and also the mechanical properties of yield strength, ultimate strength and elongation were analysed using universal testing machine. The optimized friction stir weld parameters were identified for 20% weight fraction reinforced hybrid composites.**Accession Number:** WOS:000429662400013**Language:** English**Document Type:** Article**Author Keywords:** Hybrid composites; Particles; Microscope; Hardness; Friction stir welding**KeyWords Plus:** ALUMINUM-ALLOY; HYBRID COMPOSITES; FATIGUE BEHAVIOR; INFILTRATION; PARAMETERS; JOINTS; B4C; FSW**Addresses:** [Babu, Suresh B.; Boopathi, C.; Pridhar, T.; Srinivasan, R.] Sri Krishna Coll Technol, Coimbatore 641042, Tamil Nadu, India.

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| Thiagarajan, Pridhar | AAD-5680-2019               |              |

**Publisher:** KOREAN ASSOC CRYSTAL GROWTH, INC**Publisher Address:** SUNGDONG POST OFFICE, P O BOX 27, SEOUL 133-600, SOUTH KOREA**Web of Science Categories:** Materials Science, Ceramics**Research Areas:** Materials Science**IDS Number:** GC3CS**ISSN:** 1229-9162**29-char Source Abbrev.:** J CERAM PROCESS RES**ISO Source Abbrev.:** J. Ceram. Process. Res.**Source Item Page Count:** 6**Output Date:** 2020-01-07

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**Record 192 of 250****Title:** Relevance Re-ranking Through Proximity Based Term Frequency Model**Author(s):** Bama, SS (Bama, S. Sathya); Ahmed, MSI (Ahmed, M. S. Irfan); Saravanan, A (Saravanan, A.)**Edited by:** Stojanov G; Kulakov A**Source:** ICT INNOVATIONS 2016: COGNITIVE FUNCTIONS AND NEXT GENERATION ICT SYSTEMS **Book Series:** Advances in Intelligent Systems and Computing **Volume:** 665 **Pages:** 219-229 **DOI:** 10.1007/978-3-319-68855-8\_22 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Abstract:** In this internet era, people rely on the most significant tool called search engine for retrieving attractive information from the web. Also, the rapid growth in the usage of the web increases the volume of data on the web, due to which most of the documents retrieved by the search engine is overwhelmed with inappropriate and redundant information called outliers. This not only increases the result space, but also roots in wasting the user's time and effort that makes them to surf uninteresting data. Consequently, a method is essential for the web user community to remove uninteresting information and to present the interesting data in an organized manner based on their request. Web content outlier mining is promising research area that serves these features to the web users. In this research work, proximity based term frequency model has been developed for retrieving the appropriate information and for refining the quality of the results offered by the search engine. Experimental results indicate that proximity based term frequency model improves the performance in terms of relevancy re-ranking of the retrieved documents.

**Accession Number:** WOS:000448429600022

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** ICT Innovations Conference on Cognitive Functions and Next Generation ICT Systems

**Conference Date:** SEP 05-07, 2016

**Conference Location:** Ohrid, MACEDONIA

**Conference Sponsors:** Macedonian Soc Informat & Commun Technologies, Univ Ss Cyril & Methodius, Fac Comp Sci & Engn

**Author Keywords:** Relevance ranking; Search engine; Term frequency; Proximity; Web content outlier

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**Publisher:** SPRINGER INTERNATIONAL PUBLISHING AG

**Publisher Address:** GEWERBESTRASSE 11, CHAM, CH-6330, SWITZERLAND

**Web of Science Categories:** Computer Science, Artificial Intelligence; Computer Science, Information Systems

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**Record 193 of 250****Title:** Analyzing the weld strength of ultrasonic polymer welding using Artificial Neural Networks**Author(s):** Chinnadurai, T (Chinnadurai, T.); Saravanan, S (Saravanan, S.); Prabaharan, N (Prabaharan, N.); Pandian, MK (Pandian, M. Karthigai); Deebika, S (Deebika, S.)**Source:** MATERIALS TODAY-PROCEEDINGS **Volume:** 5 **Issue:** 14 **Pages:** 28320-28327 **DOI:** 10.1016/j.matpr.2018.10.116 **Part:** 2 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 2**Cited References:** Ali N. A., 2016, NEURAL COMPUT APPL, P1

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**Cited Reference Count:** 9

**Abstract:** Welding is considered as one of the most important process for the manufacturing industries. To be precise, the welding process has a supreme role to play in the automobile industry for fabrication and maintenance. Ultrasonic Welding (USW) is a very commonly used welding procedure in such industries, preferred because of its less processing time and versatility. In this study, three most influencing process parameters that includes welding pressure (P), weld time (Tw), and amplitude (A), are considered to determine the tensile strength of welded PC/ABS blend joints. The welding process is applied on a total of 26 samples and their tensile properties are obtained in terms of experimental results. It is clearly understood that all tensile strength of the joints welded by ultrasonic method is greatly influenced by all three process parameters. Further, with the help of data obtained from the experimentation, an Artificial Neural Network (ANN) based on Back Propagation model has been developed for analyzing the tensile strength of USW joints. By comparing the real time experimental results with the ANN predicted results, it is observed that the predicted and experimental models are in accordance with each other. This novel ANN model could be further employed for identifying the tensile strength of USW joints in various joining applications. Finally, the SEM images are analyzed to predict the nature of the weld condition. (c) 2018 Elsevier Ltd. All rights reserved.

**Accession Number:** WOS:000454159800078**Language:** English**Document Type:** Proceedings Paper**Conference Title:** International Conference on Composite Materials: Manufacturing, Experimental Techniques, Modeling and Simulation (ICCMEMS)**Conference Date:** MAR 01-03, 2018**Conference Location:** Jalandhar, INDIA**Conference Sponsors:** Lovely Profess Univ, Dept Mech Engrn**Author Keywords:** Ultrasonic welding; Tensile strength; ANN; SEM**Addresses:** [Chinnadurai, T.; Pandian, M. Karthigai; Deebika, S.] Sri Krishna Coll Technol, Dept ICE, Coimbatore, Tamil Nadu, India.

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| , karthigai pandian |                             | 0000-0002-5976-1029 |
| Prabaharan, N.      |                             | 0000-0003-0686-5825 |

**Publisher:** ELSEVIER SCIENCE BV**Publisher Address:** PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS**IDS Number:** HF3UK**ISSN:** 2214-7853**29-char Source Abbrev.:** MATER TODAY-PROC**ISO Source Abbrev.:** Mater. Today-Proc.**Source Item Page Count:** 8**Open Access:** Other Gold**Output Date:** 2020-01-07**Record 194 of 250****Title:** Biodiesel from lemon and lemon grass oil and its effect on engine performance and exhaust emission**Author(s):** Dhivagar, R (Dhivagar, R.); Sundararaj, S (Sundararaj, S.); Vignesh, VR (Vignesh, V. R.)**Book Group Author(s):** IOP**Source:** INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN MATERIALS, MECHANICAL AND CIVIL ENGINEERING **Book Series:** IOP Conference Series- Materials Science and Engineering **Volume:** 330 **Article Number:** UNSP 012103 **DOI:** 10.1088/1757-899X/330/1/012103 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Azeem Hafiz P A, 2016, INT J RES MECH ENG, V2, P70

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**Abstract:** In the present scenario many developing countries are depending on oil producing nations for their fuel resources. Due to demand and scarcity of the fuel, there has been a huge increase in fuel prices. The vehicular population is also continuously increasing and becoming a great menace to peoples. This paper aims to provide an alternate solution for petroleum based fuels. It suggests that biodiesel produced from lemon and lemon grass oil can be used as an alternative fuel. This work investigates the thermal performance of four stroke diesel engine using blends of biodiesel and diesel as a fuel. Performance parameters like brake thermal efficiency, mechanical efficiency and specific fuel consumption were measured at different loads for diesel and various combination of biofuel (L10, L20, and L30). The maximum brake thermal efficiency obtained is about 26.12% for L20 which is slightly higher than that of diesel (24.91%). Engine experimental results showed that exhaust emissions including CO<sub>2</sub> and HC were reduced by 6% and 5% for L20 mixture of biodiesel whereas CO emission was as same as diesel. However, there was increase in NO(x) by 26% to the diesel fuel.

**Accession Number:** WOS:000432424600103

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Recent Advances in Materials, Mechanical and Civil Engineering (ICRAMMCE)

**Conference Date:** JUN 01-02, 2017

**Conference Location:** Hyderabad, INDIA

**Conference Sponsors:** Marri Laxman Reddy Inst Technol & Management, Dept Mat Engr, Marri Laxman Reddy Inst Technol & Management, Dept Mech Engr, Marri Laxman Reddy Inst Technol & Management, Dept Civil Engr, Indo Universal Collaborat Engr Educ, CSIR India, Akkam Immigrat & Allied Serv, Kotak Mahindra Bank, Metsonic Engineers, Adhoc Fire & Safety, Thermo Calc Software, Nebosh, Skill India

**KeyWords Plus:** DIESEL-ENGINE; FEEDSTOCK; COMBUSTION; PALM; FUEL

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**Web of Science Categories:** Engineering, Civil; Engineering, Mechanical; Materials Science, Multidisciplinary

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**Record 195 of 250**

**Title:** AN ENERGY EFFICIENT TECHNIQUE FOR TIME SENSITIVE APPLICATION USING MC-WSN

**Author(s):** Divya, K (Divya, K.); Jaipriya, S (Jaipriya, S.); Anitha, G (Anitha, G.); Malathy, S (Malathy, S.); Maheswar, R (Maheswar, R.)

**Book Group Author(s):** IEEE

**Source:** PROCEEDINGS OF THE 2ND INTERNATIONAL CONFERENCE ON INVENTIVE SYSTEMS AND CONTROL (ICISC 2018) **Pages:** 1451-+ **Published:** 2018

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**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

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**Cited References:** Abdelhakim M, 2016, IEEE J SEL AREA COMM, V34, P1663, DOI 10.1109/JSAC.2016.2545383

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**Cited Reference Count:** 10

**Abstract:** This paper proposes a novel energy efficient scheme for time-sensitive applications. In conventional sensor networks with mobile access point (SENMA), the mobile access points (MAPs) move through the network to collect information directly from sensor nodes. In SENMA incorporated with mobile co-ordinated wireless sensor network (MC-WSN) architecture, the sensor nodes communicate with cluster heads (CHs) rather than mobile access points. The

implementation of MC-WSN architecture eventually minimises the number of hops. In contrast with SENMA, the throughput in SENMA incorporated with MC-WSN is independent of the physical speed of MA. Systematic examination of the performance of MC-WSN indicates a much higher throughput thereby making this scheme energy efficient and reliable.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 2nd International Conference on Inventive Systems and Control (ICISC)

**Conference Date:** JAN 19-20, 2018

**Conference Location:** Coimbatore, INDIA

**Conference Sponsors:** JCT Coll Engn & Technol, IEEE, AESS, TUV Austria, Shri Jagannath Educ Hlth & Charitable Trust

**Author Keywords:** Wireless sensor networks; mobile access points; cluster head; throughput

**KeyWords Plus:** SENSOR NETWORKS

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**Publisher:** IEEE

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**Web of Science Categories:** Automation & Control Systems; Computer Science, Software Engineering; Energy & Fuels; Engineering, Electrical & Electronic

**Research Areas:** Automation & Control Systems; Computer Science; Energy & Fuels; Engineering

**IDS Number:** BM8AO

**ISBN:** 978-1-5386-0807-4

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**Record 196 of 250**

**Title:** PULL OUT BEHAVIOUR OF DEFORMED STEEL BARS IN FLY ASH BLENDED SELF COMPACTING GEOPOLYMER CONCRETE

**Author(s):** Ganeshan, M (Ganeshan, Mahima); Sreevidya, V (Sreevidya, V); Nirubanchakravarthy, L (Nirubanchakravarthy, L.); Sindhu, G (Sindhu, G.)

**Source:** REVISTA ROMANA DE MATERIALE-ROMANIAN JOURNAL OF MATERIALS **Volume:** 48 **Issue:** 3 **Pages:** 346-354 **Published:** 2018

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 1

**Usage Count (Since 2013):** 4

**Cited References:** ACI (American Concrete Institute), 2008, 318 ACI

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**Cited Reference Count:** 36

**Abstract:** This study extends the ongoing investigation on bond performance of embedded steel in self consolidating geopolymer concrete, when Class F fly ash is blended with Class C fly ash. 5% OPC and 10% Class C fly ash are replaced to the basic source material Low calcium Fly ash, to facilitate the external exposure curing conditions and thereby aiming for cast in situ concrete production. Synthesising solutions for source material used are combination of sodium hydroxide and sodium silicates. Normal self compacting concrete, Self compacting geopolymer concrete with added OPC and Self compacting geopolymer concrete with OPC and Class C fly ash are the types of concrete selected for experimental investigation. Pull out tests are carried out by varying diameter and bond length of embedded steel in concrete. Comparison of bond stress on 54 pull out specimens was determined using IS: 2770 (Part 1) and studies revealed that inclusion of Class C fly ash in self consolidating geopolymer improves the bond strength tremendously. Results were compared to the latest empirical models proposed by researchers and FIB model code 2010.

**Accession Number:** WOS:000452733000009

**Language:** English

**Document Type:** Article

**Author Keywords:** Self compacting geopolymer concrete; Ordinary Portland Cement; Class C fly ash; Bond Length; Bond Strength; External exposure curing

**KeyWords Plus:** COMPRESSIVE STRENGTH; PORTLAND-CEMENT; BOND STRENGTH; FRESH

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**Publisher:** SERBAN SOLACOLU FOUNDATION

**Publisher Address:** STR GHEORGHE POLIZU NR 1, COD 011061 SECTOR 1, BUCURESTI, 00000, ROMANIA

**Web of Science Categories:** Construction & Building Technology; Materials Science, Multidisciplinary

**Research Areas:** Construction & Building Technology; Materials Science

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**Output Date:** 2020-01-07

**Record 197 of 250**

**Title:** PERFORMANCE EVALUATION OF FAULT NODES USING QUEUE THRESHOLD BASED ON N-POLICY PRIORITY QUEUEING MODEL

**Author(s):** Jayarajan, P (Jayarajan, P.); Maheswar, R (Maheswar, R.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Sivasankaran, V (Sivasankaran, V.); Balaji, M (Balaji, M.); Das, J (Das, Jagannath)

**Book Group Author(s):** IEEE

**Source:** 2018 9TH INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT) **Book Series:** International Conference on Computing Communication and Network Technologies **Published:** 2018

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Akyildiz IF, 2002, COMPUT NETW, V38, P393, DOI 10.1016/S1389-1286(01)00302-4

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**Cited Reference Count:** 18

**Abstract:** A major issue in Wireless Sensor Networks (WSNs) is the minimum availability of energy and hence reducing the amount of energy consumed is of greater interest. In WSN, large amount of energy is consumed during transmission and failure of nodes in sensor network is common. Here, a novel technique

is proposed to reduce the node's energy consumption during data transmission using queue threshold based on N-Policy Priority Queueing Model (PQM) by taking failure of nodes into consideration. A sensor network model is developed analytically to evaluate the performance of the proposed scheme by means of energy consumption and delay by taking node failures into consideration. From the results, it is inferred the average energy consumption savings is about 43% for the optimal threshold value by taking node failures into consideration. Simulations are carried out and the results obtained show that the analytical and simulation results matches thus validating the accuracy of the analytical model.

**Accession Number:** WOS:000448205000182

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT)

**Conference Date:** JUL 10-12, 2018

**Conference Location:** IISC, Bengaluru, INDIA

**Conference Host:** IISC

**Author Keywords:** energy; node failure; N-Policy PQM; queue threshold

**KeyWords Plus:** SENSOR NETWORKS

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| P, Jayarajan        | R-9395-2019                 | 0000-0002-8302-6315 |

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Engineering; Telecommunications

**IDS Number:** BL1RS

**ISSN:** 2162-7665

**ISBN:** 978-1-5386-4430-0

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**Record 198 of 250**

**Title:** Fabrication of Al6061-Al2O3 composite through liquid metallurgy technique

**Author(s):** Kaviyarasan, K (Kaviyarasan, K.); Pridhar, TT (Pridhar, T. T.); Sureshbabu, B (Sureshbabu, B.); Boopathi, C (Boopathi, C.); Srinivasan, R (Srinivasan, R.)

**Edited by:** Prabhu S; John MRS; Senthil R; Ambigai R; Cheralathan M; Rajasekaran T

**Source:** 2ND INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING (ICAME 2018) **Book Series:** IOP Conference Series-Materials Science and Engineering **Volume:** 402 **Article Number:** 012148 **DOI:** 10.1088/1757-899X/402/1/012148 **Published:** 2018

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Baradeswaran A, 2014, COMPOS PART B-ENG, V56, P464, DOI 10.1016/j.compositesb.2013.08.013

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SURAPPA MK, 1981, J MATER SCI, V16, P983, DOI 10.1007/BF00542743

**Cited Reference Count:** 11

**Abstract:** Aluminium Metal Matrix Composites (MMCs) are preferred to other conventional materials in the fields of aerospace, automotive and marine applications owing to their improved properties like high strength to weight ratio, good wear resistance etc. In the present work, an attempt has been made to synthesize Al6061-Al(2)O(3)particulate metal matrix composites by liquid metallurgy route (stir casting technique). Aluminium metal matrix composite was fabricated with Al6061 alloy as a matrix and Al2O3 as a reinforcement material. Reinforcement was added in the range of 0, 3 and 6 percentage by weight into the molten alloy, hence the Al6061 metal matrix composite was produced and their properties were estimated. Micro-Vickers hardness of the composite was found to increase with increase in filler content in the composite. Along with the hardness, compressive strength and the corrosion resistance properties of composite material steadily increases with the increase in the reinforcement particles in the matrix. Besides that the impact strength of composite was found to decrease with the enhancement of the ceramic reinforcement particle Al2O3 into the Al6061 alloy matrix.

**Accession Number:** WOS:000482465700148

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 2nd International Conference on Advances in Mechanical Engineering (ICAME)

**Conference Date:** MAR 22-24, 2018

**Conference Location:** SRM Inst Sci & Technol, Kattankulathur, INDIA

**Conference Sponsors:** SRM Inst Sci & Technol, Dept Mech Engr, Swam Equipments, RV Machine Tools & Micro Mat, Nano Tec

**Conference Host:** SRM Inst Sci & Technol

**Author Keywords:** Liquid metallurgy; Micro-Vickers hardness; Corrosion; Impact strength

**KeyWords Plus:** MATRIX COMPOSITES

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**Publisher:** IOP PUBLISHING LTD

**Publisher Address:** DIRAC HOUSE, TEMPLE BACK, BRISTOL BS1 6BE, ENGLAND

**Web of Science Categories:** Engineering, Multidisciplinary

**Research Areas:** Engineering

**IDS Number:** BN4NG

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**Source Item Page Count:** 7

**Open Access:** Bronze, Other Gold

**Output Date:** 2020-01-07

#### Record 199 of 250

**Title:** Wireless Bio signal Acquisition Electrode module for EMG

**Author(s):** Kumar, SL (Kumar, S. Logesh); Swathy, M (Swathy, M.); Vidya, M (Vidya, M.); Poojaa, K (Poojaa, K.); Manikandan, G (Manikandan, G.); Jennifer, AA (Jennifer, Aarthi A.)

**Book Group Author(s):** IEEE

**Source:** PROCEEDINGS OF THE 2018 SECOND INTERNATIONAL CONFERENCE ON INVENTIVE COMMUNICATION AND COMPUTATIONAL TECHNOLOGIES (ICICCT) **Pages:** 1839-1844 **Published:** 2018

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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George A., 2016, IMAGE, V5, P6

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TANG ZN, 1995, IEEE T BIO-MED ENG, V42, P524, DOI 10.1109/10.376158

**Cited Reference Count:** 14

**Abstract:** Electromyography measures muscle response to a nerve stimulation of the muscle. Waveform/signals from the muscle are widely used for the evaluation of neuromuscular diseases. The main aim of this work is to eliminate the probe connection between electrode and equipment. This improves mobility of patient (baby/athletef handicapped) and it reduces the improper connection of probe with electrode. This wireless electrode technology helps the physician & technicians to visualize the patient data remotely and need not to present near the patient for analysis. Quantitative method is used to measure the activity of muscle by signal acquisition, conditioning unit and interfaced with the Wi-Fi module for communication. Analog signal obtained and converted into digital value by Arduino. The programs are designed with Arduino language and incorporate in the board. Thus, the extracted value from the EMG circuit is transmitted by Wi-Fi to thingspeak platform. Thingspeak platform is used for representing the envelope of discrete output value based on activity of muscle. The amplitude value in respect to time is calculated. The contrast phenomenon is with the size of the electrode that fixes in the arm. Components used in this method are designed in the way which helps in the miniaturization for the development of product.

**Accession Number:** WOS:000456251700365

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Inventive Communication and Computational Technologies (ICICCT)

**Conference Date:** APR 20-21, 2018

**Conference Location:** Coimbatore, INDIA

**Conference Sponsors:** IEEE, Ranganathan Engr Coll

**Author Keywords:** Electromyography; Electrode; Arduino; Wireless technology

**Addresses:** [Kumar, S. Logesh] Dr NGP Inst Technol, Dept Biomed Engr, Coimbatore, Tamil Nadu, India.

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[Vidya, M.] Sri Krishna Coll Technol, Dept Instrumentat & Control Engr, Coimbatore, Tamil Nadu, India.

[Poojaa, K.; Manikandan, G.; Jennifer, Aarthi A.] Dr NGP Inst Technol, Dept Instrumentat & Control Engr, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Theory & Methods; Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Computer Science; Engineering; Telecommunications

**IDS Number:** BL8FP**ISBN:** 978-1-5386-1974-2**Source Item Page Count:** 6**Output Date:** 2020-01-07**Record 200 of 250****Title:** Energy Efficient Real Time Environmental Monitoring System Using Buffer Management Protocol**Author(s):** Maheswar, R (Maheswar, R.); Jayarajan, P (Jayarajan, P.); Vimalraj, S (Vimalraj, S.); Sivagnanam, G (Sivagnanam, G.); Sivasankaran, V (Sivasankaran, V.); Amiri, IS (Amiri, Iraj S.)**Book Group Author(s):** IEEE**Source:** 2018 9TH INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT) **Book Series:** International Conference on Computing Communication and Network Technologies **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 3**Cited References:** Anitha G., 2018, J COMPUTATIONAL THEO, V15, P616

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**Cited Reference Count:** 13

**Abstract:** Many tiny sensors connected together for gathering the information constitute Wireless Sensor Network (WSN). It plays prominent role in many applications like environmental monitoring, target tracking, defence, military, etc. In many of the situations, sensor nodes are highly battery operated. So it becomes important to have maximum lifetime of the network and to advocate this issue many energy efficient methodologies are already proposed. One of the prominent methods is buffer management protocol based on queue threshold technique which is widely used to prolong the network lifetime. In this paper, real time results are obtained by considering environmental monitoring application to study the various network parameters in terms of number of retransmission, synchronization bytes, processing time and energy. Obtained results depicts that the energy consumed is highly reduced which leads to improvement in network lifetime while considering the queue threshold model.

**Accession Number:** WOS:000448205000219**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT)**Conference Date:** JUL 10-12, 2018**Conference Location:** IISC, Bengaluru, INDIA**Conference Host:** IISC**Author Keywords:** WSN; queue threshold; network parameters and lifetime**KeyWords Plus:** NETWORKS**Addresses:** [Maheswar, R.; Jayarajan, P.; Vimalraj, S.; Sivagnanam, G.; Sivasankaran, V.] Sri Krishna Coll Technol, Coimbatore, Tamil Nadu, India.

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| Rajagopal, Maheswar | I-7936-2019                 | 0000-0001-7977-4751 |
| Amiri, Iraj Sadegh  | C-2104-2017                 | 0000-0001-8121-012X |

**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic; Telecommunications**Research Areas:** Engineering; Telecommunications**IDS Number:** BL1RS**ISSN:** 2162-7665**ISBN:** 978-1-5386-4430-0**29-char Source Abbrev.:** INT CONF COMPUT**Source Item Page Count:** 5**Funding:**

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| Electronics Sector Skills Council of India |              |

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Page 4 (Records 151 -- 200)

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Page 5 (Records 201 -- 250)

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◀ 1 | 2 | 3 | 4 | 5 ▶

**Record 201 of 250****Title:** An Effective High Quality Video Streaming Protocol with Optimal Path Selection for VANET**Author(s):** Manimozhi, D (Manimozhi, D.); Karthik, S (Karthik, S.); Sivasankaran, V (Sivasankaran, V); Arif, AM (Arif, Mohammed A.); Nithya, A (Nithya, A.)**Book Group Author(s):** IEEE**Source:** PROCEEDINGS OF THE 2018 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATION AND SIGNAL PROCESSING (ICCSP) **Pages:** 272-275 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Asefi M, 2012, IEEE T WIREL COMMUN, V11, P1817, DOI 10.1109/TWC.2012.030812.111064

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**Cited Reference Count:** 12

**Abstract:** With the developing world of science, VANET (Vehicular AdHoc Networks) has been emerged as the most prominent field of research and obtained maximum attention towards it in the past decade. VANET is an wonderful technology which allowed the moving vehicles to connect and communicate with each other. Thus with the rising attention VANET is requested to provide real time High Definition(HD) video streaming with the intention of both entertainment and to get proper safety in-formations. Though this requirement has high benefits it is also enchainned with additional issues making it challenging. The quality of the video streaming is measured by temporal and spatial factors. Keeping these factors in mind a new protocol has been proposed in this paper to deploy receiver based relay node selection along with congestion control technique. Thus the result has high quality video with high scalability and low delay performance.

**Accession Number:** WOS:000462057000058**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 7th IEEE International Conference on Communication and Signal Processing (IEEE ICCSP)**Conference Date:** APR 03-05, 2018**Conference Location:** Adhiparasakthi Engn Coll, Melmaruvathur, INDIA**Conference Sponsors:** IEEE, IEEE MAS Sect, APEC**Conference Host:** Adhiparasakthi Engn Coll**Author Keywords:** Frame rate; PSNR; QoS; Quality of Experience; Receiver based relay node selection**KeyWords Plus:** TCP**Addresses:** [Manimozhi, D.] Arunai Coll Engn, Dept ECE, Tiruvannamalai, India.

[Karthik, S.; Sivasankaran, V] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

[Arif, Mohammed A.] SRM Univ, Dept ECE, Chennai, Tamil Nadu, India.

[Nithya, A.] Vaagdevi Coll Engn, Dept ECE, Warangal, Andhra Pradesh, India.

**Reprint Address:** Manimozhi, D (reprint author), Arunai Coll Engn, Dept ECE, Tiruvannamalai, India.**E-mail Addresses:** dmmozhi@gmail.com; karthiks.ece@skct.edu.in; sivasankaran.v@skct.edu.in; arif.arunai@gmail.com; info.nith83@gmail.com**Author Identifiers:**

| Author     | Web of Science ResearcherID | ORCID Number        |
|------------|-----------------------------|---------------------|
| S, Karthik |                             | 0000-0002-9130-8558 |

**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic; Telecommunications**Research Areas:** Engineering; Telecommunications**IDS Number:** BM3FY**ISBN:** 978-1-5386-3521-6**Source Item Page Count:** 4**Output Date:** 2020-01-07**Record 202 of 250****Title:** MHD VISCOUS CASSONFLUID FLOW IN THE PRESENCE OF A TEMPERATURE GRADIENT DEPENDENT HEAT SINK WITH PRESCRIBED HEAT AND MASS FLUX**Author(s):** Palaniammal, S (Palaniammal, S.); Saritha, K (Saritha, K.)**Source:** FRONTIERS IN HEAT AND MASS TRANSFER **Volume:** 10 **Article Number:** 1 **DOI:** 10.5098/hmt.10.1 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Ajayi T. M., 2017, Journal of Applied Mathematics, V2017, DOI 10.1155/2017/1697135

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**Cited Reference Count:** 31

**Abstract:** This paper investigates heat and mass transfer of a MHD Casson fluid over a permeable stretching surface in the presence of a temperature gradient heat sink. The effects of viscous dissipation, thermal radiation and chemical reaction are also taken into the consideration. The relevant similarity transformations are used to reduce the governing equations into a system of nonlinear ordinary differential equations and then solved analytically. The influence of various physical parameters on the velocity, temperature, concentration, skin friction coefficient, Nusselt and Sherwood numbers are investigated. The numerical results of skin friction factor, Nusselt and Sherwood number are compared with the previously published data for special cases and are found to be in good agreement.

**Accession Number:** WOS:0004306500000001

**Language:** English

**Document Type:** Article

**Author Keywords:** Porous surface, Cassonfluid; Radiation; Chemical reaction; Heat and Mass flux

**KeyWords Plus:** STRETCHING SHEET; THERMAL-RADIATION; PARTIAL SLIP

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**Research Areas:** Thermodynamics

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**29-char Source Abbrev.:** FRONT HEAT MASS TRAN

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**Record 203 of 250**

**Title:** PQ data compression algorithm with modified quantizer and adaptive band logic using DTCWT

**Author(s):** Prathibha, E (Prathibha, Ekanthaiha); Manjunatha, A (Manjunatha, Ashwathnarayan); Raj, CP (Raj, Cyril Prasanna)

**Source:** ARCHIVES OF ELECTRICAL ENGINEERING **Volume:** 67 **Issue:** 1 **Pages:** 207-223 **DOI:** 10.24425/119002 **Published:** 2018

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**Cited References:** Albu M. M., 2010, P IEEE PES GEN M, P1, DOI 10.1109/PES.2010.5589808

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Zhong Y, 2014, J APPL SCI ENG, V17, P305, DOI 10.6180/jase.2014.17.3.11

**Cited Reference Count:** 13

**Abstract:** With growing demand for energy, power generated in renewable sources at various locations are distributed throughout the power grid. The power grid known as the smart grid needs to monitor power generation and its smart distribution. Smart meters provide solutions for monitoring power over smart grids. Smart meters need to continuously log data and at every source there is a large amount of data generated that needs to be compressed for both storage and transmission over the smart grid. In this paper, a novel algorithm for PQ data compression is proposed that uses the Dual Tree Complex Wavelet Transform (DTCWT) for sub-band computation and a modified quantizer is designed to reduce sub-band coefficient limits to less than 4 bits. The Run Length Encoding (RLC) and Huffman Coding algorithm encode the data further to achieve compression. The performance metrics such as a peak-signal-to-noise ratio (PSNR) and compression ratio (CR) are used for evaluation and it is found that the modified DTCWT (MDTCWT) improves PSNR by a factor of 3% and the mean squared error (MSE) by a factor of 16% as compared with the DTCWT based PQ compression algorithm.

**Accession Number:** WOS:000435777300016

**Language:** English

**Document Type:** Article

**Author Keywords:** complex wavelets; data compression; power quality disturbances; smart grid

**KeyWords Plus:** DISTURBANCE DATA-COMPRESSSION; TRANSFORM; WAVELET

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**Web of Science Categories:** Engineering, Electrical & Electronic

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**Record 204 of 250**

**Title:** EFFECT OF NON-HOMOGENEITY IN A MAGNETO ELECTRO ELASTIC PLATE OF POLYGONAL CROSS-SECTIONS

**Author(s):** Selvamani, R (Selvamani, R.); Sujitha, GI (Sujitha, G. Infant)

**Source:** MATERIALS PHYSICS AND MECHANICS **Volume:** 40 **Issue:** 1 **Pages:** 84-103 **DOI:** 10.18720/MPM.4012018\_11 **Published:** 2018

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 1

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**Cited Reference Count:** 33

**Abstract:** The effect of non-homogeneity in a magneto electro elastic plate of polygonal cross sections is studied using the linear theory of elasticity. The wave equation of motion based on two-dimensional theory of elasticity is applied under the plane strain assumption of plate of polygonal shape, composed of non-homogeneous transversely isotropic material. The frequency equations are obtained by satisfying the irregular boundary conditions of the polygonal plate using Fourier expansion collocation method. The analytical results obtained in the physical domain have been computed numerically for Triangle, Square, Pentagon and Hexagonal plates. The results for stress, strain, displacements, induced electric and magnetic fields have been presented graphically.

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**Language:** English

**Document Type:** Article

**Author Keywords:** magneto-electro elastic cylinder; solid with polygonal cross sections; Fourier expansion collocation method; stresses/vibration; transducers; sensors/actuators; MEMS/NEMS

**KeyWords Plus:** ISOTROPIC HALF-SPACE; HOLLOW CYLINDER; WAVE-PROPAGATION; FREE-VIBRATIONS; TRANSIENT-RESPONSES; CYLINDRICAL-SHELLS; MULTIPHASE; SURFACE; PLANE; BEHAVIOR

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#### Record 205 of 250

**Title:** Kinetic modelling of augmenting biomethane yield from poultry litter by mitigating ammonia

**Author(s):** Selvaraj, B (Selvaraj, Balaji); Krishnasamy, S (Krishnasamy, Senthilkumar); Munirajan, S (Munirajan, Sakthivel); Alagirisamy, PS (Alagirisamy, Pasupathy Sangareddy); Dhanushkodi, M (Dhanushkodi, Mohanraj); Gopalsamy, S (Gopalsamy, Sukanya); Kuppusamy, KK (Kuppusamy, Karthick Kumar)

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**Times Cited in Web of Science Core Collection:** 0

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**Cited Reference Count:** 25

**Abstract:** In this study, the kinetics of biogas production was studied by performing a series of the laboratory experiment with air stripped poultry litter. Four kilograms of Raw Poultry Litter is mixed with water in the ratio 1:3, respectively, and loaded inside the digesters and the samples are compared with Air

stripped Poultry Litter for a retention time of 21days. The modified Gompertz equation suitably construes the cumulative biogas produced as a function of time. From the kinetics of the system, it is inferred that the biogas production potential (A), maximum biogas production rate , and lag phase period ( ) of Raw Poultry litter is 18.77 (l/kg of VS); 1.08 (l/kg of VS/day); 1.5days, respectively, comparing with Air stripped Poultry Litter of 22.05 (l/kg of VS); 1.30 (l/kg of VS/day); 1 day, respectively. These results show that biogas production can be enhanced efficiently by means of ammonia removal pre-treatment process.

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**Author Keywords:** Air stripped Poultry litter; ammonia mitigation; biogas production rate; kinetics of biogas production; modified gompertz equation

**KeyWords Plus:** ANAEROBIC-DIGESTION; CHICKEN MANURE; BIOGAS PRODUCTION; PERFORMANCE; REMOVAL; METHANE; FERMENTATION; ENHANCEMENT; NITROGEN; WASTES

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Record 206 of 250

**Title:** Effect of Axial Force on Microstructure and Mechanical Properties Of Friction Stir Welded Squeeze Cast A413 Aluminium Alloy

**Author(s):** Srinivasan, R (Srinivasan, R.); Ramesh, A (Ramesh, A.); Athithanambi, A (Athithanambi, A.)

**Source:** MATERIALS TODAY-PROCEEDINGS **Volume:** 5 **Issue:** 5 **Pages:** 13486-13494 **DOI:** 10.1016/j.matpr.2018.02.344 **Part:** 2 **Published:** 2018

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**Cited Reference Count:** 17

**Abstract:** In this investigation an attempt has been made to study the influence of axial force on the mechanical and metallurgical properties of friction stir welded squeeze cast A413 aluminium alloy joints. Squeeze casting process brings together the advantage of conventional permanent mould casting and general forging technology. Samples were produced by varying the squeeze pressure ranging from 0.1 MPa to 170 MPa to investigate the effect of squeeze pressure on microstructure and mechanical properties. At 140 MPa squeeze pressure, sound casting were produced. The sound squeeze cast samples were friction stir welded by varying the axial force. Friction stir welding (FSW) is an improved edition of traditional welding has the potential to weld materials formerly very difficult to weld without defects. The axial force ranging from 2 kN to 7 kN was used to fabricate the joints. Microstructure, tensile and hardness tests were performed on all the joints and were related with the stir zone microstructure and hardness. It was found from the investigation that the joint fabricated with an axial force of 5 kN exhibits superior microstructural and mechanical properties. (C) 2017 Elsevier Ltd. All rights reserved.

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**Language:** English

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**Conference Title:** International Conference on Materials Manufacturing and Modelling (ICMMM)

**Conference Date:** MAR 09-11, 2017**Conference Location:** Vellore, INDIA**Author Keywords:** A413 aluminium alloy; squeeze casting; friction stir welding; axial force; microstructure; tensile strength; microhardness**KeyWords Plus:** BEHAVIOR**Addresses:** [Srinivasan, R.; Athithanambi, A.] Sri Krishna Coll Technol, Dept Mech Engr, Coimbatore 641042, Tamil Nadu, India.

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**Reprint Address:** Srinivasan, R (reprint author), Sri Krishna Coll Technol, Dept Mech Engr, Coimbatore 641042, Tamil Nadu, India.**E-mail Addresses:** r.srinivasan@skct.edu.in**Publisher:** ELSEVIER SCIENCE BV**Publisher Address:** PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS**IDS Number:** GJ3DI**ISSN:** 2214-7853**29-char Source Abbrev.:** MATER TODAY-PROC**ISO Source Abbrev.:** Mater. Today-Proc.**Source Item Page Count:** 9**Output Date:** 2020-01-07**Record 207 of 250****Title:** Design of Directional Metamaterial Antenna for UWB Applications**Author(s):** Swetha, R (Swetha, R.); Mahalakshmi, P (Mahalakshmi, P.); Vigneshram, R (Vigneshram, R.); Janani, T (Janani, T.); Vigneswaran, D (Vigneswaran, D.)**Book Group Author(s):** IEEE**Source:** PROCEEDINGS OF THE 2018 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATION AND SIGNAL PROCESSING (ICCSP) **Pages:** 1023-1025 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Abbasi NA, 2011, IET MICROW ANTENNA P, V5, P711, DOI 10.1049/iet-map.2010.0200

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Zarifi D, 2012, PROG ELECTROMAGN RES, V123, P337, DOI 10.2528/PIER11110506

**Cited Reference Count:** 7**Abstract:** An ultra-wide band monopole antenna with artificial magnetic conductor at the back plane is presented in this paper, with improved gain and directivity. The proposed antenna delivers the expected bandwidth of 3.1 - 10.6 GHz with a peak gain of 6.67 dBi at 3GHz. The designed antenna can serve as a potential candidate for applications like microwave image sensing and also for future wireless communication.**Accession Number:** WOS:000462057000209**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 7th IEEE International Conference on Communication and Signal Processing (IEEE ICCSP)**Conference Date:** APR 03-05, 2018**Conference Location:** Adhiparasakthi Engr Coll, Melmaruvathur, INDIA**Conference Sponsors:** IEEE, IEEE MAS Sect, APEC**Conference Host:** Adhiparasakthi Engr Coll**Author Keywords:** Artificial magnetic conductor; antenna; Ultra wideband; Metamaterial**Addresses:** [Swetha, R.; Mahalakshmi, P.] Vaigai Coll Engr, Dept Elect & Commun Engr, Madurai, Tamil Nadu, India.

[Vigneshram, R.; Janani, T.; Vigneswaran, D.] Sri Krishna Coll Technol, Dept Elect &amp; Commun Engr, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Swetha, R (reprint author), Vaigai Coll Engr, Dept Elect & Commun Engr, Madurai, Tamil Nadu, India.**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Engineering, Electrical & Electronic; Telecommunications**Research Areas:** Engineering; Telecommunications**IDS Number:** BM3FY**ISBN:** 978-1-5386-3521-6**Source Item Page Count:** 3**Output Date:** 2020-01-07**Record 208 of 250****Title:** Analysis and Classification of Stenosis Severity from Coronary Angiogram Images**Author(s):** Vidya, M (Vidya, M.); Kumar, SD (Kumar, Dilip S.); Kumar, SL (Kumar, S. Logesh); Pavithra, S (Pavithra, S.); Aishvarya, R (Aishvarya, R.)**Book Group Author(s):** IEEE**Source:** PROCEEDINGS OF THE 2018 SECOND INTERNATIONAL CONFERENCE ON INVENTIVE COMMUNICATION AND COMPUTATIONAL TECHNOLOGIES (ICICCT) **Pages:** 1968-1974 **Published:** 2018**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Arbab-Zadeh Armin, QUANTIFICATION CORON

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**Abstract:** Currently angiogram is the golden standard methodology used for evaluating coronary artery disease (CAD). CAD helps the physician to assess percentage of stenosis or block in blood vessel. The density of the contrast agent that passes through blood is different along the blood vessel. So to calculate the density variation, a quantitative method is used. This helps to determine the percentage of stenosis. Frames of images are extracted from the angiogram and Region of Interest (ROI) are segmented from each frame. Length and diameter of segmented blood vessel is calculated. Neural network classifier is used for determining stenosis percentage based on statistical parameters. Also the dye density along the blood vessel is calculated using volume information. The severity of stenosis is determined based on the density of dye at different blood vessel segments.

**Accession Number:** WOS:000456251700389

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Inventive Communication and Computational Technologies (ICICCT)

**Conference Date:** APR 20-21, 2018

**Conference Location:** Coimbatore, INDIA

**Conference Sponsors:** IEEE, Ranganathan Engn Coll

**Addresses:** [Vidya, M.; Kumar, Dilip S.; Pavithra, S.; Aishvarya, R.] Sri Krishna Coll Technol, Dept Instrumentat & Control Engn, Coimbatore, Tamil Nadu, India. [Kumar, S. Logesh] Dr NGP Inst Technol, Dept Biomed Engn, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Vidya, M (reprint author), Sri Krishna Coll Technol, Dept Instrumentat & Control Engn, Coimbatore, Tamil Nadu, India.

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Theory & Methods; Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Computer Science; Engineering; Telecommunications

**IDS Number:** BL8FP

**ISBN:** 978-1-5386-1974-2

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#### Record 209 of 250

**Title:** COMPARATIVE STUDY ON DURABILITY PROPERTIES OF ENGINEERED CEMENTITIOUS COMPOSITES WITH POLYPROPYLENE FIBER AND GLASS FIBER

**Author(s):** Ranjith, S (Ranjith, S.); Venkatasubramani, R (Venkatasubramani, R.); Sreevidya, V (Sreevidya, V.)

**Source:** ARCHIVES OF CIVIL ENGINEERING **Volume:** 63 **Issue:** 4 **Pages:** 83-101 **DOI:** 10.1515/ace-2017-0042 **Published:** DEC 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 3

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**Cited Reference Count:** 20

**Abstract:** The durability characteristics of Engineered Cementitious Composites (ECC) with various fibers such as polypropylene and glass were investigated in view of developing composites with high resistance to cracking. ECC offer large potential for durable civil infrastructure due to their high tensile strain capacity and controlled micro-crack width. In this study, fibre volume fractions (0.5%, 1%, 1.5%, and 2%) of both polypropylene and glass fibers varied and durability measures such as a rapid chloride penetration test, sorptivity, water absorption, acid attack, and sulphate attack were measured. Increasing the

fiber content up to 1.5% improved the durability properties of ECC. The test results indicate that the glass fiber-reinforced Engineered Cementitious Composites have better durability characteristics than polypropylene fiber-reinforced ECC.

**Accession Number:** WOS:000425944400006

**Language:** English

**Document Type:** Article

**Author Keywords:** Engineered Cementitious Composites; Polypropylene fiber; Glass fiber; Durability; Fly ash; Concrete

**KeyWords Plus:** MICRO-CRACKED ECC; FLY-ASH; PERMEABILITY; VOLUME

**Addresses:** [Ranjith, S.] Builders Engn Coll, Dept Civil Engn, Kangayam, India.

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**Publisher Address:** PAWINSKIEGO 5B, 02-106 WARSAW, POLAND

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#### Record 210 of 250

**Title:** Frequency analysis of rainfall deviation in Dharmapuri district in Tamil Nadu

**Author(s):** Rajendran, V (Rajendran, V.); Venkatasubramani, R (Venkatasubramani, R.)

**Source:** INDIAN JOURNAL OF GEO-MARINE SCIENCES **Volume:** 46 **Issue:** 8 **Pages:** 1710-1714 **Published:** AUG 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Cited Reference Count:** 16

**Abstract:** The 10 years (2004-2013) daily rainfall data for Dharmapuri district was collected from the TWAD (Tamil Nadu Water Supply and Drainage Board) to analyse the nature of distribution and frequency of rainfall. The average annual rainfall for 10 years data was calculated as 506.78 mm and average annual rainy days was 28.10. The maximum monthly rainfall (264.2 mm) was received during the month of June to September which was mostly by southwest monsoon. The maximum rainy days were in the month of September (15 days). The rainfall received during the winter, summer, southwest and northeast monsoon seasons were 17.16, 97.96, 233.82 and 157.84 mm respectively. Rainfall frequency analysis was done by Weibull's method reveals that an annual rainfall of 757.55 mm can be expected to occur once in 11 years at a probability of 9.1 %. The monthly dependable rainfall (p>68 %) is expected to occur in every year in the month of September to October.

**Accession Number:** WOS:000409398000025

**Language:** English

**Document Type:** Article

**Author Keywords:** Rainfall distribution; Weibull distribution; Rainy days; Frequency analysis

**Addresses:** [Rajendran, V.] Kathir Coll Engn, Dept Civil Engn, Coimbatore 641062, Tamil Nadu, India.

[Venkatasubramani, R.] Sri Krishna Coll Technol, Dept Civil Engn, Coimbatore 641042, Tamil Nadu, India.

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**E-mail Addresses:** rajcivi12009@yahoo.com

**Publisher:** NATL INST SCIENCE COMMUNICATION-NISCAIR

**Publisher Address:** DR K S KRISHNAN MARG, PUSA CAMPUS, NEW DELHI 110 012, INDIA

**Web of Science Categories:** Oceanography**Research Areas:** Oceanography**IDS Number:** FG0GS**ISSN:** 0379-5136**eISSN:** 0975-1033**29-char Source Abbrev.:** INDIAN J GEO-MAR SCI**ISO Source Abbrev.:** Indian J. Geo-Mar. Sci.**Source Item Page Count:** 5**Output Date:** 2020-01-07**Record 211 of 250****Title:** An Efficient Perceptual of CBIR System using MIL-SVM Classification and SURF Feature Extraction**Author(s):** Shanmugam, B (Shanmugam, Bhuvana); Rathinavel, R (Rathinavel, Radhakrishnan); Perumal, T (Perumal, Tamije); Subbaiyan, S (Subbaiyan, Subhakala)**Source:** INTERNATIONAL ARAB JOURNAL OF INFORMATION TECHNOLOGY **Volume:** 14 **Issue:** 4 **Pages:** 428-435 **Published:** JUL 2017**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 1**Cited References:** Andrews S, 2002, ADV NEURAL INFORM PR, P577

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**Cited Reference Count:** 25

**Abstract:** Hasty increase in use of color image in recent years has motivated to the need of retrieval system for color image. Content Based Image Retrieval (CBIR) system is used to retrieve similar images from large image repositories based on color, texture and shape. In CBIR, the invariance to geometrical transformation is one of the most desired properties. Speeded Up Robust Feature (SURF) and Multiple Instance Learning Support Vector Machine (MIL-SVM) are proposed for extracting invariant features and improving the accuracy of image retrieval respectively. The proposed system consists of the following phases: image segmentation using quad tree segmentation, extraction of features using SURF, classification of images using MIL-SVM, codebook design using Lindae-Buzo-Gray (LBG) algorithm, and measurement of similarity between query image and the database image using Histogram Intersection.(HI). In comparison with the existing approach, the proposed approach significantly improves the retrieval accuracy from 74.5% to 86.3%.

**Accession Number:** WOS:000405887200003**Language:** English**Document Type:** Article**Author Keywords:** SURF; MIL-SVM; LBG; HI**KeyWords Plus:** IMAGE RETRIEVAL; COLOR

**Addresses:** [Shanmugam, Bhuvana; Perumal, Tamije; Subbaiyan, Subhakala] Sri Krishna Coll Technol, Dept Comp Sci & Engn, Coimbatore, Tamil Nadu, India. [Rathinavel, Radhakrishnan] Vidhya Mandhir Inst Technol, Dept Elect & Commun Engn, Erode, Tamil Nadu, India.

**Reprint Address:** Shanmugam, B (reprint author), Sri Krishna Coll Technol, Dept Comp Sci & Engn, Coimbatore, Tamil Nadu, India.**Author Identifiers:**

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|---------------------------|-----------------------------|---------------------|
| P, Tamije Selvy           | T-3768-2019                 |                     |
| Rathinavel, Radhakrishnan |                             | 0000-0001-5140-8661 |

**Publisher:** ZARKA PRIVATE UNIV**Publisher Address:** COLL COMPUTING & INFORMATION SOC, PO BOX 132222, ZARQA, 13132, JORDAN**Web of Science Categories:** Computer Science, Artificial Intelligence; Computer Science, Information Systems; Engineering, Electrical & Electronic**Research Areas:** Computer Science; Engineering**IDS Number:** FB1ET**ISSN:** 1683-3198

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**Record 212 of 250**

**Title:** Find Pretend Biometric Mistreatment Image Quality Assessments for Spoofing Detection.

**Author(s):** Kaliappan, KK (Kaliappan, K. Kannan); Nagakumararaj, S (Nagakumararaj, S.); Pushpalatha, D (Pushpalatha, D.)

**Source:** RESEARCH JOURNAL OF PHARMACEUTICAL BIOLOGICAL AND CHEMICAL SCIENCES **Volume:** 8 **Issue:** 2 **Pages:** 1459-1465 **Published:** MAR-APR 2017

**Times Cited in Web of Science Core Collection:** 0

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**Usage Count (Since 2013):** 1

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**Cited Reference Count:** 17

**Abstract:** The Face, iris and fingerprint are most promising biometric authentication system that can be identify and analysis a person as their unique features that can be quickly extracted during the recognition process. To ensure the actual presence of a real legitimate trait in difference to a fake self-pretended synthetic or reconstructed sample is aimportant problem in biometric verification, which needs the development of new and efficient protection measures. Biometric systems are vulnerable to spoofing attack. A dependable and efficient countermeasure is needed in order to combat the epidemic growth in identity theft. The biometric detection and authentication deals with non-ideal scenarios such as blurred images, reflections and also faked by the other users. For this reason, image quality assessment approaches to implement fake detection method in multimodal biometric systems. Image quality assessment approach is used to construct the feature vectors that include quality parameters such as reflection, blur level, color diversity, error rate, noise rate, similarity values and so on. These features are stored as vector in database. Then implement Multi level Support Vector Machine classification algorithm to predict fake biometrics.

**Accession Number:** WOS:000410639500174

**Language:** English

**Document Type:** Article

**Author Keywords:** Multimodal biometrics; Image Quality; Spoofing attack; Fake detection; Feature Vector

**Addresses:** [Kaliappan, K. Kannan; Pushpalatha, D.] VSB Engn Coll, EEE DEPT, Karur, India.

[Nagakumararaj, S.] Sri Krishna Coll Technol, EEE DEPT, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kaliappan, KK (reprint author), VSB Engn Coll, EEE DEPT, Karur, India.

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**Record 213 of 250**

**Title:** Design of Smart Meter for Smart Grid application through True Time - MATLAB

**Author(s):** Anand, R (Anand, R.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Balaji, M (Balaji, M.); Mauryan, KSC (Mauryan, K. S. Chandragupta)

**Edited by:** Sundararaju K

**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON ELECTRICAL, INSTRUMENTATION AND COMMUNICATION ENGINEERING (ICEICE) **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

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**Usage Count (Last 180 days):** 0

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**Cited References:** Abdrabou A, 2015, IEEE SYST J, V9, P567, DOI 10.1109/JSYST.2013.2265179

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 Tung HY, 2014, IEEE T IND INFORM, V10, P836, DOI 10.1109/TII.2013.2280084

**Cited Reference Count:** 12

**Abstract:** Smart environment and Pervasive Computing has deeply influenced the present power system. The present smart grid is capable of determining and handling the load anywhere, anytime due to the Wireless communication. The Smart Meter (SM) is enabled with communication module, potential transformer and current transformer to measure the amount of power being used. A Zigbee communication enabled SM is designed for a smart grid and its performance is evaluated in this paper. The data error rate is also evaluated.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** IEEE International Conference on Electrical, Instrumentation and Communication Engineering (ICEICE)

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**Conference Sponsors:** IEEE, M Kumarasamy Coll Engn, IEEE Madras Sect, M Kumarasamy Coll Engn, Fac Elect Engn

**Author Keywords:** Smart Grid; Zigbee protocol; Signal Error Rate (SER); Receiver Signal Strength

**KeyWords Plus:** ZIGBEE; INFRASTRUCTURE; NETWORKS

**Addresses:** [Anand, R.; Kanagachidambaresan, G. R.; Mauryan, K. S. Chandragupta] Sri Krishna Coll Technol, Dept Elect & Elect Engn, Coimbatore, Tamil Nadu, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Computer Science; Engineering; Telecommunications

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**ISBN:** 978-1-5090-4996-7

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**Output Date:** 2020-01-07

**Record 214 of 250**

**Title:** Controlling of Torque and Flux for 3 phi Induction Machine Drive System (IMDS) using Fuzzy Controller (Theory and Introductory concepts)

**Author(s):** Dhanaselvam, J (Dhanaselvam, J.); Singh, AB (Singh, Ajith B.); Deebika, S (Deebika, S.); Surendar, S (Surendar, S.)

**Book Group Author(s):** IEEE

**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON POWER, CONTROL, SIGNALS AND INSTRUMENTATION ENGINEERING (ICPCSI) **Pages:** 929-933 **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** [Anonymous], 2012, P 2012 INT C FUZZ TH

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**Cited Reference Count:** 10

**Abstract:** In recent years, the application fields of direct torque control of induction drives have greatly increased in the areas of steel industry, paper mills and power plants and so on. It is based on decoupled flux and torque providing a very quick and robust response with a simple control construction in Alternating Current drives. Major improvement in modern industrial process over the past 50 years can be largely attributed to advance in variable speed motor drives. Prior to 1950s most of the industries use DC motors because three-phase induction motor could only be operated at standard frequency. Now thanks for the advancement in power electronic devices and the advent of DSP technology, which is fast, reliable and cost effective for the control of induction motors. In this paper, induction motor drives, Matlab simulink and the control strategy for induction drives have been discussed.

**Accession Number:** WOS:000464679901003

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (IEEE ICPCSI)

**Conference Date:** SEP 21-22, 2017

**Conference Location:** Saveetha Engn Coll, Thandalam, INDIA

**Conference Sponsors:** IEEE, Saveetha Engn Coll, Elect & Elect Engn Dept

**Conference Host:** Saveetha Engn Coll

**Author Keywords:** Induction motor drive; DTC; flux control; MATLAB; fuzzy controller

**Addresses:** [Dhanaselvam, J.; Singh, Ajith B.; Deebika, S.] Sri Krishna Coll Technol, Dept Instrumentat & Control, Coimbatore, Tamil Nadu, India.  
[Surendar, S.] Sri Krishna Coll Technol, Dept Instrumentat & Control Engr, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Dhanaselvam, J (reprint author), Sri Krishna Coll Technol, Dept Instrumentat & Control, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** dhanaselvam.j@skct.edu.in; ajith.b.singh@skct.edu.in; s.deebika@skct.edu.in; 16tuic048@skct.edu.in

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Automation & Control Systems; Engineering, Electrical & Electronic; Instruments & Instrumentation

**Research Areas:** Automation & Control Systems; Engineering; Instruments & Instrumentation

**IDS Number:** BM5AZ

**ISBN:** 978-1-5386-0814-2

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

#### Record 215 of 250

**Title:** Emerging Vehicular Cloud Applications

**Author(s):** Hegde, N (Hegde, Nayana); Manvi, SS (Manvi, Sunilkumar S.)

**Book Group Author(s):** IEEE

**Source:** 2017 INTERNATIONAL CONFERENCE ON COMPUTER COMMUNICATION AND INFORMATICS (ICCCI) **Book Series:** International Conference on Computer Communication and Informatics **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 1

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**Cited Reference Count:** 20

**Abstract:** Emerging wireless technologies and automobile industry developments are motivating researchers to develop new information experience to traveller. Vehicular Cloud Computing (VCC) technology is a very new promising area of research. It aims to improve travelling beyond the boundaries of traditional transport systems. VCC has many advanced applications which will help society with minimum cost of investment and less maintenance. VCC applications are targeted to help drivers to increase level of comfort, safety during travelling hours, reduce fuel consumption and lessen the travelling time. In this paper we have listed popular and useful applications of VCC and for some of the application implementations are discussed in detail.

**Accession Number:** WOS:000427423100093

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 7th International Conference on Computer Communication and Informatics (ICCCI)

**Conference Date:** JAN 05-07, 2017

**Conference Location:** Coimbatore, INDIA

**Conference Sponsors:** Sri Shakthi Inst Engr & Technol, IEEE, IEEE Madras Sect, India Elect & Semiconductor Assoc

**Author Keywords:** Vehicular cloud; applications; VANET; Cloud Computing

**Addresses:** [Hegde, Nayana] Sri Krishna Inst Technol, ECE Dept, Bengaluru, India.

[Manvi, Sunilkumar S.] Reva Univ, Sch Comp & Informat Technol, Bengaluru, India.

**Reprint Address:** Hegde, N (reprint author), Sri Krishna Inst Technol, ECE Dept, Bengaluru, India.

**E-mail Addresses:** nayana.srikanth@gmail.com; sunil.manvi@revainstitution.org

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Artificial Intelligence; Computer Science, Information Systems

**Research Areas:** Computer Science

**IDS Number:** BJ7LJ

**ISSN:** 2329-7190

**ISBN:** 978-1-4673-8856-6; 978-1-4673-8855-9

**29-char Source Abbrev.:** INT CONF COMP COMMUN

**Source Item Page Count:** 6

**Output Date:** 2020-01-07

**Record 216 of 250****Title:** Classification of Lung Nodules with Feature Extraction using CT scan Images**Author(s):** Jayalaxmi, M (Jayalaxmi, M.); Dhanaselvam, J (Dhanaselvam, J.); Swathi, R (Swathi, R.); Babu, M (Babu, M.)**Book Group Author(s):** IEEE**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON POWER, CONTROL, SIGNALS AND INSTRUMENTATION ENGINEERING (ICPCSI) **Pages:** 2146-2151 **Published:** 2017**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Achanta Radhakrishna, 149300 EPFL

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Zhang F, 2014, IEEE T BIO-MED ENG, V61, P1155, DOI 10.1109/TBME.2013.2295593

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**Cited Reference Count:** 15**Abstract:** OBJECTIVE: The main aim is to differentiate the various types of lung nodules using the SVM classifier. By identifying the lung nodules, the cause of lung cancer can be avoided.

METHODOLOGY: The major contributions in this system are (i) Patch based division, to partition the original images (ii) Feature extraction stage, to extract feature information (iii) Classification stage, to classify the four types of lung nodules with the help of SVM classifier with pLSA.

FINDINGS: This system has an improvement with the Local Tetra Pattern (LTrP) to provide more feature information. This pattern extracts feature information from more than two direction to give accurate results.

IMPROVEMENT: This system can be improved with different classifier to achieve accurate classification.

**Accession Number:** WOS:000464679902045**Language:** English**Document Type:** Proceedings Paper**Conference Title:** IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (IEEE ICPCSI)**Conference Date:** SEP 21-22, 2017**Conference Location:** Saveetha Engn Coll, Thandalam, INDIA**Conference Sponsors:** IEEE, Saveetha Engn Coll, Elect & Elect Engn Dept**Conference Host:** Saveetha Engn Coll**Author Keywords:** Classification; patch division; feature design; LTrP pattern; SVM classifier**Addresses:** [Jayalaxmi, M.; Dhanaselvam, J.; Swathi, R.; Babu, M.] Sri Krishna Coll Technol, Dept ICE, Coimbatore, Tamil Nadu, India.**Reprint Address:** Jayalaxmi, M (reprint author), Sri Krishna Coll Technol, Dept ICE, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** jayalaxmi.m@skct.edu.in; dhanaselvam.j@skct.edu.in; r.swathi@skct.edu.in; 16tuic009@skct.edu.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Automation & Control Systems; Engineering, Electrical & Electronic; Instruments & Instrumentation**Research Areas:** Automation & Control Systems; Engineering; Instruments & Instrumentation**IDS Number:** BM5AZ**ISBN:** 978-1-5386-0814-2**Source Item Page Count:** 6**Output Date:** 2020-01-07**Record 217 of 250****Title:** Perturb and Observe (P&O) Based MPPT Controller for PV Connected Brushless DC Motor Drive**Author(s):** Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Anand, R (Anand, R.); Kalam, A (Kalam, Akhtar)**Edited by:** Sundararaju K**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON ELECTRICAL, INSTRUMENTATION AND COMMUNICATION ENGINEERING (ICEICE) **Published:** 2017**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Akkaya R., DSP IMPLME INP RESS

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**Cited Reference Count:** 12

**Abstract:** Maximum Power Point Tracking (MPPT) algorithm for different drives serving different application is the current interest of many researchers. In this paper a P & O (P&O) based MPPT controller is designed to investigate the performance of BLDC motor. Here Perturb and Observe (P&O) based MPPT controller with and without interleaved converter is compared. The proposed model and controller methodology provides reduced current and voltage ripple and promotes efficiency. The speed control of BLDC is also tested for its novel working under different load condition. The model is designed in Matlab Simulink to ensure its novel working and also compared with traditional Boost Converter (BC). The proposed model outperforms the traditional BC as per the claim made.

**Accession Number:** WOS:000426977400033

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** IEEE International Conference on Electrical, Instrumentation and Communication Engineering (ICEICE)

**Conference Date:** APR 27-28, 2017

**Conference Location:** Karur, INDIA

**Conference Sponsors:** IEEE, M Kumarasamy Coll Engn, IEEE Madras Sect, M Kumarasamy Coll Engn, Fac Elect Engn

**Author Keywords:** Maximum Power Point Tracking; P&O Observe; BLDC Motor; Proportional Integral and Solar Photovoltaic

**KeyWords Plus:** POWER; SYSTEMS

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**Author Identifiers:**

| Author        | Web of Science ResearcherID | ORCID Number |
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| Kalam, Akhtar | I-9503-2019                 |              |

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Computer Science; Engineering; Telecommunications

**IDS Number:** BJ6XW

**ISBN:** 978-1-5090-4996-7

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**Record 218 of 250**

**Title:** An Optimal Automatic Cooling System in Cloud Data Center

**Author(s):** Kowsigan, M (Kowsigan, M.); Induja, K (Induja, K.); Kalicharan, S (Kalicharan, S.); Karthik, P (Karthik, P.)

**Book Group Author(s):** IEEE

**Source:** PROCEEDINGS OF 2017 INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTING AND CONTROL (I2C2) **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Cited Reference Count:** 10

**Abstract:** This problem is approached by means to cool the DTC by the damage caused due to overheating. The main aim of Automatic cooling systems in DTC is to get the temperature of the room of the data center and store the details in the cloud for the future use and for data analytics process. Setup the electronic devices for cooling the DTC. The electronic devices in the data center will be working regularly but during the time of emergency the electronic device performance will be increased to improve the cooling in the DTC. Thingspeak IOT analysis tool will help to provide the data storage in cloud and to perform the data analytics using MATLAB analysis. The output will be displayed in the Thingspeak Dashboard.

**Accession Number:** WOS:000464097700133

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Intelligent Computing and Control (I2C2)

**Conference Date:** JUN 23-24, 2017

**Conference Location:** Anna Univ, Karpagam Coll Engn, Dept ETE, Coimbatore, INDIA

**Conference Sponsors:** IEEE Madras Sect, IEEE Robot & Automat Soc

**Conference Host:** Anna Univ, Karpagam Coll Engn, Dept ETE

**Author Keywords:** Data centers (DTC); Data racks (DRT); Temperature Sensor (TMPS); Hard disk drive (HDD)

**Addresses:** [Kowsigan, M.; Induja, K.; Kalicharan, S.; Karthik, P.] Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kowsigan, M (reprint author), Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.  
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**Author Identifiers:**

| Author      | Web of Science ResearcherID | ORCID Number        |
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**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA  
**Web of Science Categories:** Automation & Control Systems; Computer Science, Artificial Intelligence; Engineering, Electrical & Electronic  
**Research Areas:** Automation & Control Systems; Computer Science; Engineering  
**IDS Number:** BM4WS  
**ISBN:** 978-1-5386-0374-1  
**Source Item Page Count:** 5  
**Output Date:** 2020-01-07

**Record 219 of 250**  
**Title:** An Optimal Human Tracking Propagation Using Enhanced IRIS Pattern in Large scale Biometric Environment  
**Author(s):** Kowsigan, M (Kowsigan, M.); Roopa, V (Roopa, V); Roshini, R (Roshini, R.); Shobika, S (Shobika, S.)  
**Book Group Author(s):** IEEE  
**Source:** PROCEEDINGS OF 2017 INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTING AND CONTROL (I2C2) **Published:** 2017  
**Times Cited in Web of Science Core Collection:** 0  
**Total Times Cited:** 0  
**Usage Count (Last 180 days):** 0  
**Usage Count (Since 2013):** 0  
**Cited References:** Ayhan EMRE, BIOMETRIC SECURITY T  
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**Cited Reference Count:** 19  
**Abstract:** Iris technology is used in various fields especially for security purposes like for as in military, data centers and airports because of its eccentricity and firmness. Among all other data from biometric such as fingerprint, voice-pattern and various data from soft biometric, iris proves it is the most efficient and unreplicable easily. This proposed approach is a concept of tracking every citizens of the nation all stages through his life from birth to death. Iris pattern of the person is captured and saved in the government database and the additional details has also been added corresponding to it. Once a person is registered, it gets automatically updated throughout all stages of his life until death. Till now for demographic analysis the government officials takes the census once in every five years. This system reduces the complexity by avoiding periodic updating of database and he effort that the government takes for this analysis. Daughman's algorithm is utilized in this project for its high percentage of accuracy. Hence, this project proposes the method of caching the population statistics with security and effective maintenance.  
**Accession Number:** WOS:000464097700115  
**Language:** English  
**Document Type:** Proceedings Paper  
**Conference Title:** International Conference on Intelligent Computing and Control (I2C2)  
**Conference Date:** JUN 23-24, 2017  
**Conference Location:** Anna Univ, Karpagam Coll Engn, Dept ETE, Coimbatore, INDIA  
**Conference Sponsors:** IEEE Madras Sect, IEEE Robot & Automat Soc  
**Conference Host:** Anna Univ, Karpagam Coll Engn, Dept ETE  
**Author Keywords:** Iris recognition; Image processing; Daughman's algorithm; Pattern recognition; Security  
**Addresses:** [Kowsigan, M.; Roopa, V; Roshini, R.; Shobika, S.] Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.  
**Reprint Address:** Kowsigan, M (reprint author), Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.  
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**Author Identifiers:**

| Author      | Web of Science ResearcherID | ORCID Number        |
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| M, Kowsigan | AAC-1660-2019               | 0000-0002-0861-0079 |

**Publisher:** IEEE  
**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA  
**Web of Science Categories:** Automation & Control Systems; Computer Science, Artificial Intelligence; Engineering, Electrical & Electronic

**Research Areas:** Automation & Control Systems; Computer Science; Engineering

**IDS Number:** BM4WS

**ISBN:** 978-1-5386-0374-1

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

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**Record 220 of 250**

**Title:** Timing Error Performance Analysis For Low Power Dsp Filters

**Author(s):** Krishnammal, VP (Krishnammal, V. P.); Vijayakumari, V (Vijayakumari, V.)

**Book Group Author(s):** IEEE

**Source:** 2017 INTERNATIONAL CONFERENCE ON I-SMAC (IOT IN SOCIAL, MOBILE, ANALYTICS AND CLOUD) (I-SMAC) **Pages:** 811-815 **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** CHANDRAKASAN AP, 1992, IEEE J SOLID-STATE CIRC, V27, P473, DOI 10.1109/4.126534

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Ernst D, 2004, IEEE MICRO, V24, P10, DOI 10.1109/MM.2004.85

Lee YH, 2010, IEEE J SOLID-STATE CIRC, V45, P2227, DOI 10.1109/JSSC.2010.2063610

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Tschanz J., 2007, 2007 IEEE International Solid-State Circuits Conference (IEEE Cat. No.07CH37858), P292, DOI 10.1109/ISSCC.2007.373409

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**Cited Reference Count:** 11

**Abstract:** Circuit-level timing error detection and correction technique, which aims to increase energy-efficiency of digital signal processing data paths. It is important to develop a high-performance FIR filter to meet the requirements of real-time, low power, low cost and small area in different applications. Razor Flip-flop based dynamic voltage scaling error detection technique which is used to eliminate the supply voltage margin. Razor flip flop is used to detect the timing errors on Critical Path. The FIR filter based on Razor for every bit and the error bit is generated and one can overcome the error with the help of filter. The proposed Filter can be used for any DSP application. The Razor based FIR filter is synthesized and simulated using VHDL. Finally the Razor based approach is applied to Multiplier and performance is analyzed. Designed filter is verified with the 8 Bit multiplication and the output is achieved without error because of the Razor used in each bit of the filter.

**Accession Number:** WOS:000427222200150

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC)

**Conference Date:** FEB 10-11, 2017

**Conference Location:** Palladam, INDIA

**Conference Sponsors:** IEEE, Electron Devices Soc, SCAD Inst Technol

**Author Keywords:** Dynamic Voltage Scaling (DVS); Finite Impulse Response (FIR) Filter; Razor

**Addresses:** [Krishnammal, V. P.] Adhiyamaan Coll Engr, Dept EIE, Hosur, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Hardware & Architecture; Computer Science, Interdisciplinary Applications

**Research Areas:** Computer Science

**IDS Number:** BJ7FD

**ISBN:** 978-1-5090-3243-3

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

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**Record 221 of 250**

**Title:** Reactive power optimization in a power system network through metaheuristic algorithms

**Author(s):** Kuppamuthu Sivalingam, CM (Kuppamuthu Sivalingam, Chandragupta Mauryan); Ramachandran, S (Ramachandran, Subramanian); Rajamani, PSS (Rajamani, Purnnima Shiva Sakthi)

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**Cited Reference Count: 19**

**Abstract:** Reactive power optimization (RPO) in a power system is a rudimentary necessity for the reduction of the loss of power. For the requirement of a unity power factor in the RPO system, the reduction of the system losses is ensured. The pivotal requirements of a power system are inclusive of a perfect compensation technique and methodology for stable reactive power compensation. The proposed concept in this paper utilizes the different reactive power optimization algorithms and performs a comparison. The process is accomplished by the use of IEEE 6-bus, 14-bus, and 30-bus systems to test the optimization technique. The conclusive information reinforces the outperformance of the based optimization algorithm to the other algorithm, thereby providing high stability to the system. The algorithm ensures the confinement of the voltage profile of the system within the permissible limits.

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**Language:** English

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**Author Keywords:** Reactive power optimization; power loss minimization; optimization; voltage profile

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**Record 222 of 250**

**Title:** BUFFER CAPACITY BASED NODE LIFE TIME ESTIMATION IN WIRELESS SENSOR NETWORK

**Author(s):** Laktharia, KI (Laktharia, Kamalajith I.); Kanagachidambaresan, GR (Kanagachidambaresan, G. R.); Maheswar, R (Maheswar, R.); Mahima, V (Mahima, V.); Darwish, A (Darwish, Ashraf)

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**Source:** 2017 8TH INTERNATIONAL CONFERENCE ON COMPUTING, COMMUNICATION AND NETWORKING TECHNOLOGIES (ICCCNT) **Book Series:** International Conference on Computing Communication and Network Technologies **Published:** 2017

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**Cited Reference Count:** 20

**Abstract:** Lifetime improvement is the mandatory part of Wireless Sensor Network The lifetime of the node is majorly influenced by the data sent, distance between nodes and residual energy of the node. The number of data transmitted cannot be limited; however the number of transmitter on and off energy dissipation could be minimized. The data transition cost and holding cost is derived with respect to data arrival rate. This article analysis the energy of dissipation of the node with respect to different arrival rate and buffer threshold value. The analysis is carried for different distance and different arrival rate. The data arrival rate to the node is considered as poisson in nature. The results prove that the threshold based model provides considerable amount of energy savage to the node, thereby can able to increase the network lifetime.

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**Document Type:** Proceedings Paper

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**Author Keywords:** Wireless Sensor Network; network lifetime; threshold; energy

**KeyWords Plus:** PROTOCOL

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**Record 223 of 250**

**Title:** Alcohol Detection and Seat Belt Control System using Arduino

**Author(s):** Malathi, M (Malathi, M.); Sujitha, R (Sujitha, R.); Revathy, MR (Revathy, M. R.)

**Book Group Author(s):** IEEE

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**Cited References:** [Anonymous], 2009, FAT AN REP SYST FARS

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**Abstract:** On a survey that has been done recently, said that nearly 70% of road accidents occur due to drunken drive, with a range of 44% to 67% in small cities. They also conveyed that overall of 56 accidents and 14 to 15 deaths occur on our roads per day due to not wearing the seat belts. In the already

available system, the alcohol sensor is kept on the car steering and thereby controls the vehicle according to the presence of alcohol. But road safety is indeed important in other aspect that is the reason we are controlling the system based on the seatbelt wearing.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS)

**Conference Date:** MAR 17-18, 2017

**Conference Location:** Karpagam Coll Engn, Coimbatore, INDIA

**Conference Sponsors:** IEEE Madras Sect, IEEE Computat Intelligence Soc

**Conference Host:** Karpagam Coll Engn

**Author Keywords:** GSM; GPS; Alcohol sensor; IR sensor; Arduino micro controller; seatbelt control; ignition control

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#### Record 224 of 250

**Title:** Enhanced Image Steganography Using AES & SPIHT Compression

**Author(s):** Malathi, M (Malathi, M.); Rahul, M (Rahul, M.); Kumar, NS (Kumar, N. Sathish); Thamaraiselvan, R (Thamaraiselvan, R.)

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**Cited Reference Count:** 25

**Abstract:** Steganography is derived from Greek word, 'steganos' which refers to covered writing of messages. It is a mechanism of hiding messages or data by embedding them into some other data. Through this mechanism, the secured message can be completely hidden from unauthorized access. In existence, Steganography along with SPIHT compression is done using asymmetric cryptographic algorithm. In this model, Steganography is being employed with SPIHT compression where wavelet transformation of image takes place and AES cryptographic algorithm along Diffie-Hellman key exchange mechanism is used for providing additional security and processing speed. In the proposed system, the secret image is compressed using SPIHT compression and encrypted using cover image. Hence, the encrypted stego image with cover image and secret image is obtained. To perform decryption over the stego-image which, the key is to be exchanged using Diffie-Hellman technique. After decrypting, the image is subjected into SPIHT decompression process which is employed to retrieve the original secret image.

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**Document Type:** Proceedings Paper

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**Conference Sponsors:** IEEE Madras Sect, IEEE Computat Intelligence Soc

**Conference Host:** Karpagam Coll Engn

**Author Keywords:** Steganography; SPIHT compression; AES; Diffie Hellman; wavelet transform; stego image; encryption; decryption

**Addresses:** [Malathi, M.; Rahul, M.; Kumar, N. Sathish; Thamaraiselvan, R.] Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Malathi, M (reprint author), Sri Krishna Coll Technol, Dept Informat Technol, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** m.malathi@skct.edu.in; 14N213@skct.edu.in; 14N224@skct.edu.in; 14N237@skct.edu.in

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**Title:** Vehicular Cloud Computing Challenges and Security

**Author(s):** Manvi, SS (Manvi, Sunilkumar S.); Hegde, N (Hegde, Nayana)

**Book Author(s):** Bhattacharyya, S (Bhattacharyya, S); Das, N (Das, N); Bhattacharjee, D (Bhattacharjee, D); Mukherjee, A (Mukherjee, A)

**Source:** HANDBOOK OF RESEARCH ON RECENT DEVELOPMENTS IN INTELLIGENT COMMUNICATION APPLICATION **Book Series:** Advances in Wireless Technologies and Telecommunication (AWTT) Book Series **Pages:** 344-365 **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

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**Usage Count (Last 180 days):** 0

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**Cited References:** Al-Qutayri, 2010, COMPUTATIONAL INTELL

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Zeadally S, 2012, TELECOMMUN SYST, V50, P217, DOI 10.1007/s11235-010-9400-5

**Cited Reference Count:** 34

**Abstract:** Vehicular Cloud Communication (VCC) is the latest technology in intelligent transport system. Vehicular cloud (VC) facilitates the customers to share resources ranging from storage to computing power to renting it to other users over the Internet. Security of VANET cloud covers various aspects of security, social impact, cost effective communication. Chapter highlights a cost effective, hassle free and secure communication between the cloud and moving vehicles. Communication is established via Network as a Service (Naas). The goal of this chapter is to give a broad overview of Vehicular cloud computing, vehicular cloud applications, mobile computing, and recent literature covering security of vehicular cloud.

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**Record 226 of 250**  
**Title:** Quantitative Measuring of Research Output of Engineering Colleges in Karnataka based on Web of Science Database  
**Author(s):** Nagaraja, A (Nagaraja, Aragudige); Gangadhar, KC (Gangadhar, K. C.); Kumar, MV (Kumar, M. Vasantha)  
**Source:** JOURNAL OF SCIENTOMETRIC RESEARCH **Volume:** 6 **Issue:** 1 **Pages:** 36-46 **DOI:** 10.5530/jscires.6.1.5 **Published:** JAN-APR 2017  
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Verma RK, 2009, COLLNET J SCIENTOMET, V3, P19, DOI 10.1080/09737766.2009.10700873

**Cited Reference Count:** 30  
**Abstract:** Bibliometric analysis is one of the methods to measure the research output published in journals. It is very important for policy holders to know the area of research interest of faculty members as well as their selection of journals for publishing articles. It is the best tool to know the authors selection methods of journals for publishing research reports. In this paper, authors analyze the research output of engineering colleges affiliated to Vishvesvaraya Technological University in Karnataka, by using the Web of Science core collection database and prepares the list of most prolific authors, most preferred journals by the authors in different disciplines.

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**Author Identifiers:**

| Author              | Web of Science ResearcherID | ORCID Number |
|---------------------|-----------------------------|--------------|
| Aragudige, Nagaraja | AAA-1041-2020               |              |

**Publisher:** PHCOG NET

**Publisher Address:** 17, 2ND FLR, BUDDHA VIHAR RD, NEAR SPORTS ZONE, COX TOWN, BENGALURU, KARNATAKA, 560005, INDIA

**Web of Science Categories:** Information Science & Library Science

**Research Areas:** Information Science & Library Science

**IDS Number:** FI2WM

**ISSN:** 2320-0057

**29-char Source Abbrev.:** J SCIENTOMETR RES

**ISO Source Abbrev.:** J. Scientometr. Res.

**Source Item Page Count:** 11

**Open Access:** Other Gold

**Output Date:** 2020-01-07

#### Record 227 of 250

**Title:** Model Reference Adaptive Control (MRAC) Implementation for an Industrial Pilot Stirrer Process

**Author(s):** Singh, AB (Singh, Ajith B.); Jothi, AAS (Jothi, Anie Selva A.); Jananisri, S (Jananisri, S.)

**Book Group Author(s):** IEEE

**Source:** 2017 IEEE INTERNATIONAL CONFERENCE ON POWER, CONTROL, SIGNALS AND INSTRUMENTATION ENGINEERING (ICPCSI) **Pages:** 2072-

2076 **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Astrom Karl J., ADAPTIVE CONTROL TEO

Duka Adrian-Vasile, MODEL REFERENCE ADAP

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Lightbody G, 1997, IEEE T NEURAL NETWORK, V8, P553, DOI 10.1109/72.572095

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Siraskar Nilesh B., DECENTRALIZED MODEL

**Cited Reference Count:** 9

**Abstract:** Modeling of flow process in various tanks and vessels is one of the most common problems in the process industry. In this paper adaptive control is implemented for the CSTR process. The CSTR process is a classic example of a highly nonlinear system. Inflow rate is taken as the input data and process level is taken as the output for CSTR. The input flow is measured using a turbine flow meter while the output level is measured using a differential pressure transmitter (DPT). The mathematical model of the CSTR process is identified in the laboratory conditions using MAT LAB simulations and this model is used for implementing in adaptive control in the simulation environment. Here Model Reference Adaptive Control (MRAC) is implemented for the given transfer function of the CSTR process and is being compared with conventional PID and auto tuning PID controllers. In future further adaptive controllers can be implemented for the same process along with the consideration of further nonlinearities which would be more helpful in optimization of the CSTR process.

**Accession Number:** WOS:000464679902030

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (IEEE ICPCSI)

**Conference Date:** SEP 21-22, 2017

**Conference Location:** Saveetha Engn Coll, Thandalam, INDIA

**Conference Sponsors:** IEEE, Saveetha Engn Coll, Elect & Elect Engn Dept

**Conference Host:** Saveetha Engn Coll

**Author Keywords:** Process control; nonlinear dynamics; nonlinear process control; model reference adaptive control; comparative analysis with conventional control

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Automation & Control Systems; Engineering, Electrical & Electronic; Instruments & Instrumentation

**Research Areas:** Automation & Control Systems; Engineering; Instruments & Instrumentation

**IDS Number:** BM5AZ

**ISBN:** 978-1-5386-0814-2

**Source Item Page Count:** 5

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#### Record 228 of 250

**Title:** Survey on Similar Object Detection in H.264 Compressed Video

**Author(s):** Srinivasan, K (Srinivasan, K.); Balamurugan, P (Balamurugan, P.); Azhaguramyaa, VR (Azhaguramyaa, V. R.)

**Book Group Author(s):** IEEE

**Source:** 2017 INTERNATIONAL CONFERENCE ON ALGORITHMS, METHODOLOGY, MODELS AND APPLICATIONS IN EMERGING TECHNOLOGIES (ICAMMAET) **Published:** 2017

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** AHMADI K, 2016, ELSEVIER PATTERN REC, V58, P227, DOI DOI 10.1016/J.PATCOG.2016.04.001

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Lia Xin, 2016, ELSEVIER KNOWLEDGE B, P1  
Majeed I, 2016, ENG APPL ARTIF INTEL, V55, P363, DOI 10.1016/j.engappai.2016.08.005  
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Zhao Hainan, 2016, ELSEVIER NEUROCOMPUT, P1

Cited Reference Count: 23

**Abstract:** Similar object detection is an important feature that must be included in any object tracking application which will have great impact on video surveillance. Object tracking is a dynamic optimization process based on the temporal information related to the previous frames. The primary steps of object tracking are preprocessing, background subtraction and segmentation, similar object detection and object tracking. Self-similarity [23] is an attractive image property which has recently found its way into object recognition in the form of local self-similarity descriptors. In this work, global as well as local self-similarity descriptors are discussed to find the similar object detection.

**Accession Number:** WOS:000425926100041

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Algorithms, Methodology, Models and Applications in Emerging Technologies (ICAMMAET)

**Conference Date:** FEB 16-18, 2017

**Conference Location:** Chennai, INDIA

**Author Keywords:** Similar object detection; local self-similarity descriptor; Global self-similarity descriptor

**KeyWords Plus:** TRACKING

**Addresses:** [Srinivasan, K.] Sri Krishna Coll Technol, Dept Elect & Commun Engn, Coimbatore, Tamil Nadu, India.

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**Author Identifiers:**

| Author            | Web of Science ResearcherID | ORCID Number |
|-------------------|-----------------------------|--------------|
| AZHAGURAMYAA, V R | AAF-7130-2019               |              |

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Theory & Methods; Engineering, Electrical & Electronic

**Research Areas:** Computer Science; Engineering

**IDS Number:** BJ5HU

**ISBN:** 978-1-5090-3378-2

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

Record 229 of 250

**Title:** Experimental studies and finite element simulation of ultrasonic welding of Cu alloy

**Author(s):** Raj, NM (Raj, N. Mohan); Kumaraswamidhas, LA (Kumaraswamidhas, L. A.); Vendan, SA (Vendan, S. Arungalai)

**Source:** BULLETIN OF THE POLISH ACADEMY OF SCIENCES-TECHNICAL SCIENCES **Volume:** 64 **Issue:** 3 **Pages:** 535-546 **DOI:** 10.1515/bpasts-2016-0060 **Published:** SEP 2016

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 1

**Usage Count (Since 2013):** 11

**Cited References:** Amanat N, 2010, MED ENG PHYS, V32, P690, DOI 10.1016/j.medengphy.2010.04.011

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Tsujino J., 2009, IEEE INT ULTR S, P1211

Tsujino J., 2010, IEEE INT ULTR S, P1420

**Cited Reference Count:** 12

**Abstract:** This research study aims to investigate the mechanical and metallographical aspects of ultrasonic welding of Cu-Cu wires. Experimental trials have been conducted and observations have been recorded as a database that collates parametric, quality and strength aspects of various weldments. Destructive testing and metallurgical characterizations have been carried out to examine the strength and integrity of the weldment. The key focus of this research attempt is laid on determining and evaluating the factors that governs the strength of the weldment. Metallurgical characterizations reveal vital information on the weld integrity and the extent of grain distribution. Further, FEM is employed to understand the deformation and thermal aspects involved in Cu-Cu welding using ultrasonics. The numerical model may provide an insight into the thermal phenomenon governing the joining process and subsequently estimation of the impact. Response surface methodology is employed to identify the parametric interdependencies and subsequently determine the optimized range.

**Accession Number:** WOS:000387106900010

**Language:** English

**Document Type:** Article

**Author Keywords:** ultrasonic; wire; Cu alloys; finite element method

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[Raj, N. Mohan; Kumaraswamidhas, L. A.] Indian Sch Mines, Dept Min Machinery Engr, Dhanbad, Bihar, India.

[Vendan, S. Arungalai] VIT Univ, Sch Elect Engr, Vellore, Tamil Nadu, India.

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**Author Identifiers:**

| Author                  | Web of Science ResearcherID | ORCID Number        |
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| S, Arungalai Vendan     | AAG-9280-2019               |                     |
| Kumaraswamidhas, Dr L A | B-8518-2017                 | 0000-0001-7438-7007 |

**Publisher:** POLSKA AKAD NAUK, POLISH ACAD SCI, DIV IV TECHNICAL SCIENCES PAS

**Publisher Address:** PL DEFILAD 1, WARSZAWA, 00-901, POLAND

**Web of Science Categories:** Engineering, Multidisciplinary

**Research Areas:** Engineering

**IDS Number:** EB1JK

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**29-char Source Abbrev.:** B POL ACAD SCI-TECH

**ISO Source Abbrev.:** Bull. Pol. Acad. Sci.-Tech. Sci.

**Source Item Page Count:** 12

**Open Access:** DOAJ Gold

**Output Date:** 2020-01-07

**Record 230 of 250**

**Title:** Real Time Implementation of Multimedia Traffic Unicast and Multicast Groups Using Optical Network

**Author(s):** Gowd, BR (Gowd, Bhargav Rama); Kumari, N (Kumari, Nalina); Thenappan, S (Thenappan, S.); Dattathreya (Dattathreya)

**Book Group Author(s):** IEEE

**Source:** PROCEEDINGS OF 2016 INTERNATIONAL CONFERENCE ON ADVANCED COMMUNICATION CONTROL AND COMPUTING TECHNOLOGIES (ICACCCT) **Pages:** 35-38 **Published:** 2016

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Ding A, 2003, COMPUT COMMUN, V26, P193, DOI 10.1016/S0140-3664(02)00132-9

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Li Jie, 2015 15 IEEE ACM INT

Low Tze-ping, IEEE COMM SOC SUBJ M

Tanenbaum, DISTRIBUTED SYSTEM P

**Cited Reference Count:** 5

**Abstract:** The performance and analysis of Multicast groups using optical cable of 1KM distance network based on RTP(Real time Transfer Protocol) for the communication on real time connection oriented network Multimedia communication in internet need a large Bandwidth, Viewers or Peoples are more interested in watching live programs. Thus here we are using the RTP, During the transmission of the data from server to client systems redundant bit are introduced leading to buffering in order to overcome this streaming is adopted. Transmitting Multicast data from one point of server to the interested receiver or groups receiver systems, The main aim of this project is to improve the life time of network, Qos, communication system, Increases Bandwidth and Essential to avoid packet loss, delay than the unicast communication.

**Accession Number:** WOS:000400169400006

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Advanced Communication Control and Computing Technologies (ICACCCT)

**Conference Date:** MAY 25-27, 2016

**Conference Location:** Syed Ammal Engr Coll, Ramanathapuram, INDIA

**Conference Sponsors:** IEEE Madras Sect

**Conference Host:** Syed Ammal Engr Coll

**Author Keywords:** Unicast; Multicast; Optical Network; Addresses of IP

**Addresses:** [Gowd, Bhargav Rama] JNTU Anantapur, Dept ECE, Anantapur, Andhra Pradesh, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Computer Science, Theory & Methods; Engineering, Electrical & Electronic; Telecommunications

**Research Areas:** Computer Science; Engineering; Telecommunications

**IDS Number:** BH4BD

**ISBN:** 978-1-4673-9545-8

**Source Item Page Count:** 4

**Output Date:** 2020-01-07

#### Record 231 of 250

**Title:** Dual Tree Complex Wavelet Transform Based Approach for Power Quality Monitoring and Data Compression

**Author(s):** Prathibha, E (Prathibha, E.); Manjunatha, A (Manjunatha, A.); Basavaraj, S (Basavaraj, Sunil)

**Book Group Author(s):** IEEE

**Source:** 2016 BIENNIAL INTERNATIONAL CONFERENCE ON POWER AND ENERGY SYSTEMS: TOWARDS SUSTAINABLE ENERGY (PESTSE) **Published:** 2016

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Dash P. K., 2003, IEEE T POWER DELIVER, V18

Kingsbury N. G., 1998, P 8 IEEE DSP WORKSH

Kumar V., 2014, INT J INNOVATIVE RES, V3

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Santoso S, 1997, IEEE T POWER DELIVER, V12, P1250, DOI 10.1109/61.637001

Wartmann B., 2004, 8 IEE INT C DEV POW, V2, P518

**Cited Reference Count:** 9

**Abstract:** Power quality disturbance is a one the challenging issues, where many researchers are gaining the attention towards it, now a day it is very much necessary to monitor power quality disturbances for analyze and other purpose. The quantity of the data captured in present power quality monitoring system has been increasing drastically. It is difficult to store and transmission huge data. So compression technique is required to reduce the storage space for data. This paper proposes Dual tree complex wavelet transform (DTCWT) method for power quality monitoring and integrates run length encoding technique for compress disturbance data. Voltage sag, swell, transients and flickers are Power quality disturbances used to test the proposed method. And Matlab was used for generation of test signals and to implement the different algorithms for data compression.

**Accession Number:** WOS:000390837800118

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 2nd Biennial International Conference on Power and Energy Systems - Towards Sustainable Energy (PESTSE)

**Conference Date:** JAN 21-23, 2016

**Conference Location:** Bangalore, INDIA

**Conference Sponsors:** IEEE Power & Energy Soc, Bangalore Chapter, Amrita Vishwa Vidyapeetham, Bengaluru Campus, MATA AMRITANANDAMAYI MATH, IEEE Bangalore Sect, KREDL, Amrita Vishwa Vidyapeetham, Amrita Sch Engr, Dept Elect & Elect Engr

**Author Keywords:** Power Quality Disturbances; Dual Tree complex wavelet Transform; Feature extraction; Data compression

**Addresses:** [Prathibha, E.; Manjunatha, A.; Basavaraj, Sunil] Sri Krishna Inst Technol, Elect & Elect Engr Dept, Bangalore, Karnataka, India.

**Reprint Address:** Prathibha, E (reprint author), Sri Krishna Inst Technol, Elect & Elect Engr Dept, Bangalore, Karnataka, India.

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Energy & Fuels; Engineering, Electrical & Electronic

**Research Areas:** Energy & Fuels; Engineering

**IDS Number:** BG6RU

**ISBN:** 978-1-4673-6658-8

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

#### Record 232 of 250

**Title:** Performance Analysis of Multiphase Buck Converter for VRMs Using Phase Shedding Technique

**Author(s):** Varghese, MP (Varghese, Mini. P.); Manjunatha, A (Manjunatha, A.); Kumar, S (Kumar, Sunil)

**Book Group Author(s):** IEEE

**Source:** 2016 BIENNIAL INTERNATIONAL CONFERENCE ON POWER AND ENERGY SYSTEMS: TOWARDS SUSTAINABLE ENERGY (PESTSE) **Published:** 2016

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

**Cited References:** Agrawal Jitendra, IEEE PEDS 2005

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**Cited Reference Count:** 15

**Abstract:** In Voltage regulator modules, efficient regulation at any power level is an important factor. A voltage regulator provides regulated output voltage at the output in accordance with the input. Microprocessors demand current ranges from peak current to relatively low quiescent current and also it requires higher maximum output currents from switching regulators over a wide output current dynamic range. This work proposes a comparison between different approaches of ripple reduction and improvements in efficiency based on the buck converter. A brief analysis of a two phase converter is carried out and the design methodology is presented, focused for achieving acceptable efficiency by compromising ripple reduction.

**Accession Number:** WOS:000390837800126

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 2nd Biennial International Conference on Power and Energy Systems - Towards Sustainable Energy (PESTSE)

**Conference Date:** JAN 21-23, 2016

**Conference Location:** Bangalore, INDIA

**Conference Sponsors:** IEEE Power & Energy Soc, Bangalore Chapter, Amrita Vishwa Vidyapeetham, Bengaluru Campus, MATA AMRITANANDAMAYI MATH, IEEE Bangalore Sect, KREDL, Amrita Vishwa Vidyapeetham, Amrita Sch Engn, Dept Elect & Elect Engn

**Author Keywords:** Ruck converter; Multiphase; VRM

**KeyWords Plus:** EFFICIENCY IMPROVEMENT

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**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Energy & Fuels; Engineering, Electrical & Electronic

**Research Areas:** Energy & Fuels; Engineering

**IDS Number:** BG6RU

**ISBN:** 978-1-4673-6658-8

**Source Item Page Count:** 5

**Output Date:** 2020-01-07

**Record 233 of 250**

**Title:** NEW INEQUALITIES ON HOMOGENEOUS FUNCTIONS (vol 15, pg 49, 2009)

**Author(s):** Lokesha, V (Lokesha, V.); Nagaraja, KM (Nagaraja, K. M.); Simsek, Y (Simsek, Y.)

**Source:** JOURNAL OF THE INDONESIAN MATHEMATICAL SOCIETY **Volume:** 21 **Issue:** 1 **Pages:** 71-72 **Published:** APR 2015

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 2

**Cited References:** CARLSON BC, 1972, AM MATH MON, V79, P615, DOI 10.2307/2317088  
LIN T, 1974, AM MATH MON, V81, P879, DOI 10.2307/2319447  
Lokesha V, 2009, J INDONES MATH SOC, V15, P49

**Cited Reference Count:** 3

**Accession Number:** WOS:000366584800007

**Language:** English

**Document Type:** Correction

**Addresses:** [Lokesha, V.] Acharya Inst Technol, Dept Math, Bangalore 90, India.  
[Nagaraja, K. M.] Sri Krishna Inst Technol, Dept Math, Bangalore 90, Karnataka, India.  
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| SIMSEK, YILMAZ | C-1654-2016                 | 0000-0002-0611-7141 |

**Publisher:** INDONESIAN MATHEMATICAL SOC

**Publisher Address:** DEPT MATHEMATICS, INST TEKNOLOGI BANDUNG, BANDUNG, 40132, INDONESIA

**Web of Science Categories:** Mathematics

**Research Areas:** Mathematics

**IDS Number:** CY7JO

**ISSN:** 2086-8952

**29-char Source Abbrev.:** J INDONES MATH SOC

**ISO Source Abbrev.:** J. Indones. Math. Soc.

Source Item Page Count: 2

Open Access: DOAJ Gold

Output Date: 2020-01-07

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Record 234 of 250

Title: An online task placement algorithm using Hilbert curve for a partially reconfigurable field programmable gate array

Author(s): Joseph, S (Joseph, Senoj); Baskaran, K (Baskaran, K.)

Book Group Author(s): IEEE

Source: TENCON 2015 - 2015 IEEE REGION 10 CONFERENCE Book Series: TENCON IEEE Region 10 Conference Proceedings Published: 2015

Times Cited in Web of Science Core Collection: 0

Total Times Cited: 0

Usage Count (Last 180 days): 0

Usage Count (Since 2013): 0

Cited References: Ahmadinia A., 2004, Proceedings. 18th International Parallel and Distributed Processing Symposium  
Ahmadinia A, 2007, IEEE T COMPUT, V56, P673, DOI 10.1109/TC.2007.1028  
Bazargan K, 2000, IEEE DES TEST COMPUT, V17, P68, DOI 10.1109/54.825678  
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Cited Reference Count: 13

Abstract: With the arrival of partial reconfiguration technology, modern FPGAs support tasks that can be loaded in (removed from) the FPGA individually without interrupting other tasks already running on the same FPGA. Many online task placement algorithms designed for such partially reconfigurable systems have been proposed to provide efficient and fast task placement. A new approach for online placement of modules on reconfigurable devices, by managing the free space using a run-length based representation. This representation allows the algorithm to insert or delete tasks quickly and also to calculate the fragmentation easily. In the proposed FPGA model the CLBs are numbered according to Hilbert space filling curve model. The search algorithm will quickly identify a placement for the incoming task based on first fit mode or a fragmentation aware best Fit mode. Simulation experiments indicate that proposed techniques result in low ratio of task rejection and high FPGA utilization compared to existing techniques

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Conference Title: IEEE Region 10 Conference

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Conference Sponsors: IEEE, IPIM, CIUR, IEEE SINGAPORE SEC, CPSS, manetic, Melco Crown Entertainment, MACAO WATER, cadence ACADEMIC NETWORK, MuleSoft, cem, Wanlida, MANGO MESSAGING TECH, SEE, FDCT

Author Keywords: Partial Reconfiguration; Task Placement; Free Space Management; Hilbert Curve; FPGA; Task Scheduling

KeyWords Plus: FREE-SPACE MANAGEMENT

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Record 235 of 250

Title: A Pareto Survivor Function Based Cluster Head Selection Mechanism (PSFCHSM) to Mitigate Selfish Nodes in Wireless Sensor Networks

Author(s): Rajarajeswari, PL (Rajarajeswari, P. L.); Karthikeyan, NK (Karthikeyan, N. K.)

Edited by: Abawajy JH; Mukherjea S; Thampi SM; RuizMartinez A

Source: SECURITY IN COMPUTING AND COMMUNICATIONS (SSCC 2015) Book Series: Communications in Computer and Information Science Volume: 536 Pages: 381-391 DOI: 10.1007/978-3-319-22915-7\_35 Published: 2015

Times Cited in Web of Science Core Collection: 0

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**Cited Reference Count:** 16

**Abstract:** In Wireless Sensor Networks (WSNs), co-operation among sensor nodes plays a significant role for reliable data delivery by prolonging the lifetime of the network. Taking this aspect into account, a Pareto Survivor Function based Cluster Head Selection Mechanism (PSFCHSM) is proposed for electing the new cluster head under selfish attack. In this approach, the detection of selfish attack is achieved through a conditional probabilistic approach which monitors events that purely depends only on the continuous network parameters. The proposed strategy not only identifies the selfish attack in sensor networks but also elects a new sensor node as a rehabilitative Cluster Head (CH) based on Pareto Survivor Function (PSF). The preeminence of the proposed approach is evaluated through evaluation parameters like Packet Delivery Ratio (PDR), Energy Consumption Rate and Throughput by varying the number of sensor nodes and the transmission range. Further, the incorporation of this conditional survivability co-efficient mechanism detects and mitigates selfish nodes at a rapid rate of 32 % than the benchmark mechanisms like Fuzzy Ant Colony Optimization Routing (FACOR) and Genetic Algorithm Inspired Routing Protocol (GROUP) considered for comparison. The proposed approach not only isolates the selfish nodes that causes Denial of Service (DoS) attack but also reduces the cost incurred in communication. Furthermore, the simulation results show that PSFCHSM outperforms GROUP and FACOR by enhancing the network lifetime by 28 %.

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**Conference Sponsors:** SCMS Grp Inst

**Conference Host:** SCMS Sch Engn & Technol

**Author Keywords:** Selfish nodes; Conditional survivability co-efficient; Pareto Survivor Function (PSF); FACOR; GROUP; Node lifetime

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**Author Identifiers:**

| Author                 | Web of Science ResearcherID | ORCID Number |
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**Publisher:** SPRINGER-VERLAG BERLIN

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**Record 236 of 250**

**Title:** Weld Procedural Effect on the Performance of Ferrous Based Hardfacing Deposit on Mild Steel Substrate

**Author(s):** Reddy, KMK (Reddy, K. M. Kenchi); Thanusha, K (Thanusha, K.)

**Edited by:** Ao Si; Gelman L; Hukins DWL; Hunter A; Korsunsky AM

**Source:** WORLD CONGRESS ON ENGINEERING, WCE 2015, VOL II **Book Series:** Lecture Notes in Engineering and Computer Science **Pages:** 1053-1058 **Published:** 2015

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**Cited References:** AVERY HS, 1952, WELD J, V31, P917

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**Cited Reference Count:** 12

**Abstract:** Hardfacing is one of the most useful and economic ways to improve the performance of components submitted to severe wear conditions. A study was made to compare the microstructure and abrasion resistance of hardfacing alloys reinforced with primary chromium carbides, the hardfacing alloys were deposited onto M.S. plate by SMAW process.

Two different commercial hardfacing electrodes were employed to investigate the effect of the microstructure. The abrasion tests were carried out in a dry sand-rubber wheel abrasion machine according to the procedure A of ASTM G65 standard. Microstructure characterization and surface analysis were made using optical and scanning electron microscope. The result shows that the wear resistance is determined by the size, shape, distribution and chemical composition of the carbides, as well as by the matrix microstructure. The best abrasion resistance was obtained in microstructure composed of chromium carbide alloy. Hardfacing is a deposition of different metal over the parent metal to achieve required properties.

**Accession Number:** WOS:000380592500072

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** World Congress on Engineering (WCE 2015)

**Conference Date:** JUL 01-03, 2015

**Conference Location:** Imperial Coll, London, ENGLAND

**Conference Sponsors:** Int Assoc Engr

**Conference Host:** Imperial Coll

**Author Keywords:** Abrasion Resistance; Hardfacing Alloys; Microstructure Characterization; Wear Mechanism

**KeyWords Plus:** WEAR BEHAVIOR; MICROSTRUCTURE; RESISTANCE; IRON

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**Publisher:** INT ASSOC ENGINEERS-IAENG

**Publisher Address:** UNIT 1, 1-F, 37-39 HUNG TO ROAD, KWUN TONG, HONG KONG, 00000, PEOPLES R CHINA

**Web of Science Categories:** Computer Science, Interdisciplinary Applications; Computer Science, Theory & Methods; Engineering, Multidisciplinary

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#### Record 237 of 250

**Title:** Performance Evaluation of Differential Evolution and Particle Swarm Optimization Algorithms for Optimizing Power Loss in a Worm Gear Mechanism

**Author(s):** Sabarinath, P (Sabarinath, P.); Thansekhar, MR (Thansekhar, M. R.); Saravanan, R (Saravanan, R.)

**Edited by:** Kamalakannan C; Suresh LP; Dash SS; Panigrahi BK

**Source:** POWER ELECTRONICS AND RENEWABLE ENERGY SYSTEMS **Book Series:** Lecture Notes in Electrical Engineering **Volume:** 326 **Pages:** 433-441 **DOI:** 10.1007/978-81-322-2119-7\_44 **Published:** 2015

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Cited Reference Count:** 15

**Abstract:** Optimal design of machine elements plays a vital role in reducing the cost of manufacturing the machine elements. Design optimization is an important task to achieve the above goal. Many optimization algorithms have been proposed and used in the past for design optimization and they are used to find the optimal set of design variables possibly subjected to a set of constraints. Still, there is a scope for efficient algorithms for the design optimization of machine elements. In this study, the design optimization of a worm gear mechanism is presented by using two non-conventional optimization algorithms namely Differential Evolution and Particle Swarm Optimization algorithms for minimizing the power-loss. The results obtained by using Differential Evolution

and Particle Swarm Optimization algorithms are compared with that of genetic algorithm and analytical method. The results showed that both the algorithms are efficient in finding the optimal design values.

**Accession Number:** WOS:000365186400044

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Power Electronics and Renewable Energy Systems (ICPERES)

**Conference Date:** APR 25-26, 2014

**Conference Location:** Rajalakshmi Engn Coll, Chennai, INDIA

**Conference Host:** Rajalakshmi Engn Coll

**Author Keywords:** Optimal design; Worm and worm wheel; Differential evolution algorithm; Particle swarm optimization

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**Publisher:** SPRINGER

**Publisher Address:** 233 SPRING STREET, NEW YORK, NY 10013, UNITED STATES

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#### Record 238 of 250

**Title:** M/M(a, b)/(2,1) queueing system with servers repeated and delayed vacation

**Author(s):** Baskar, S (Baskar, S.); Palaniammal, S (Palaniammal, S.)

**Source:** ASIAN-EUROPEAN JOURNAL OF MATHEMATICS **Volume:** 7 **Issue:** 2 **Article Number:** 1450032 **DOI:** 10.1142/S1793557114500326 **Published:** JUN 2014

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

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**Cited Reference Count:** 18

**Abstract:** In queueing systems with multi-server models, every server goes on vacation irrespective of the availability of the server in the system. This creates inconvenience to the customers in places like computer network, communication network, hospitals, telegraph offices and telephone booths, etc., where at least one server must be available in the system for service. In this paper, an analysis has been carried out on a bulk service queueing system with two servers in which at least one server is available for service in the system always.

**Accession Number:** WOS:000214269900010

**Language:** English

**Document Type:** Article

**Author Keywords:** Steady state probability; bulk service; repeated server vacation; Markovian queueing system; queue length; delayed vacation

**Addresses:** [Baskar, S.; Palaniammal, S.] Sri Krishna Coll Technol, Dept Sci & Humanities, Coimbatore 641042, Tamil Nadu, India.

**Reprint Address:** Baskar, S (reprint author), Sri Krishna Coll Technol, Dept Sci & Humanities, Coimbatore 641042, Tamil Nadu, India.

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**Research Areas:** Mathematics**IDS Number:** V11HS**ISSN:** 1793-5571**eISSN:** 1793-7183**29-char Source Abbrev.:** ASIAN-EUR J MATH**ISO Source Abbrev.:** Asian-Eur. J. Math.**Source Item Page Count:** 14**Output Date:** 2020-01-07**Record 239 of 250****Title:** Reactive Power Optimization Using GSA**Author(s):** Ramamoorthy, A (Ramamoorthy, Ambika); Ramachandran, R (Ramachandran, Rajeswari)**Book Group Author(s):** IEEE**Source:** 2014 6TH IEEE POWER INDIA INTERNATIONAL CONFERENCE (PIICON) **Published:** 2014**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited References:** Biserica M, 2012, IEEE T SMART GRID, V3, P1137, DOI 10.1109/TSG.2012.2193673

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**Cited Reference Count:** 15

**Abstract:** Reactive power flow in a power system is to be optimized by minimizing the real power loss and it is essential for maintaining the voltage stability of the system. The control variables such as magnitude of generator bus voltage, transformer tap settings and shunt capacitors can optimize the reactive power flow. This paper uses the nature inspired gravitational search algorithm (GSA) to solve a multi objective and multi constrained optimal reactive power flow problem in power systems. The performance of the standard IEEE 30 bus test system is tested and the results prove the effectiveness of this algorithm. The results show best among other algorithms and found to be suitable for power system operation optimization problems.

**Accession Number:** WOS:000392742800079**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 6th IEEE Power India International Conference (PIICON)**Conference Date:** DEC 05-07, 2014**Conference Location:** New Delhi, INDIA**Conference Sponsors:** IEEE, Delhi Technol Univ**Author Keywords:** Gravitational Search Algorithm; Optimal Reactive Power Dispatch; Loss Minimization; Voltage Deviation Minimization; Optimization**Addresses:** [Ramamoorthy, Ambika] Sri Krishna Coll Technol, EEE Dept, Coimbatore, Tamil Nadu, India.

[Ramachandran, Rajeswari] Govt Coll Technol, EEE Dept, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Ramamoorthy, A (reprint author), Sri Krishna Coll Technol, EEE Dept, Coimbatore, Tamil Nadu, India.**E-mail Addresses:** rambi\_2004@yahoo.co.in; rreee@gct.ac.in**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Energy & Fuels; Engineering, Electrical & Electronic**Research Areas:** Energy & Fuels; Engineering**IDS Number:** BG8WL**ISBN:** 978-1-4799-6042-2**Source Item Page Count:** 4**Output Date:** 2020-01-07**Record 240 of 250****Title:** Data Fusion in Ontology Based Data Integration**Author(s):** Saranya, K (Saranya, K.); Hema, MS (Hema, M. S.); Chandramathi, S (Chandramathi, S.)**Book Group Author(s):** IEEE**Source:** 2014 INTERNATIONAL CONFERENCE ON INFORMATION COMMUNICATION AND EMBEDDED SYSTEMS (ICICES) **Published:** 2014**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 1**Cited References:** Bleiholder J., 2008, VLDB 09, V41, P1

Dong XL, 2009, PROC VLDB ENDOW, V2, P1654, DOI 10.14778/1687553.1687620

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**Cited Reference Count:** 10

**Abstract:** The existence of numerous data sources needs a common interface to access data for much research in the field of data analysis. Data Integration should address issues like semantic heterogeneity, redundant data and data conflict. Many approaches that were proposed lack in considering data conflict as an issue, thus the resolution results of them are often inaccurate. In this paper, a novel data conflict resolution approach based on Markov Logic Networks (MLNs) for Ontology based data integration is devised. Ontology is used to handle semantic heterogeneity that would result in increase in the recall rate and precision of the result is increased by resolving data conflicts and thus the system ensures that the user always receives high-quality data for the user query. Experiment on book dataset for online book purchase application is done and the precision of the resultant dataset is increased thus showing the effectiveness of this approach.

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**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Information Communication and Embedded Systems (ICICES)

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**Conference Location:** Chennai, INDIA

**Author Keywords:** Data Integration; Duplicate detection; Data Conflict; Ontology; Markov Logic Network

**Addresses:** [Saranya, K.; Hema, M. S.] Kumaraguru Coll Technol, Dept Comp Sci & Engn, Coimbatore, Tamil Nadu, India.

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**Web of Science Categories:** Engineering, Electrical & Electronic; Telecommunications

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**IDS Number:** BF2RA

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**Record 241 of 250**

**Title:** Performance of single cylinder diesel engine with bael seed biodiesel

**Author(s):** Dhanamurugan, A (Dhanamurugan, A.); Subramanian, R (Subramanian, R.)

**Source:** JOURNAL OF SCIENTIFIC & INDUSTRIAL RESEARCH **Volume:** 72 **Issue:** 11 **Pages:** 690-694 **Published:** NOV 2013

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**Cited References:** Bora DK, 2008, J SCI IND RES INDIA, V67, P73

Bora DK, 2009, J SCI IND RES INDIA, V68, P960

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**Cited Reference Count:** 15

**Abstract:** This paper presents application of biodiesel produced from bael (Aegle marmelos) seed oil in a single cylinder diesel engine and compares biodiesel performance and emissions characteristics with petro diesel. Performance parameters of B20 (Brake thermal efficiency and Brake Specific Energy Consumption) were quite close to petroleum diesel. B20 emits lesser emissions (CO, HC, NOx, and CO2) than petro diesel except smoke level. Thus, B20 (20% biodiesel + 80% diesel, by volume) can be effectively used as diesel fuel substitute in existing diesel engine without any engine modification.

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**Language:** English

**Document Type:** Article

**Author Keywords:** Bael seed biodiesel; Transesterification; Diesel engine

**KeyWords Plus:** BLENDS

**Addresses:** [Dhanamurugan, A.] Coimbatore Anna Univ, Nehru Inst Technol, Dept Mech Engn, Madras, Tamil Nadu, India.

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**Reprint Address:** Dhanamurugan, A (reprint author), Coimbatore Anna Univ, Nehru Inst Technol, Dept Mech Engn, Madras, Tamil Nadu, India.

**E-mail Addresses:** 1973dha@gmail.com

**Publisher:** NATL INST SCIENCE COMMUNICATION-NISCAIR

**Publisher Address:** DR K S KRISHNAN MARG, PUSA CAMPUS, NEW DELHI 110 012, INDIA

**Web of Science Categories:** Engineering, Multidisciplinary

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# Record 242 of 250

**Title:** BER Performance of Walsh Hadamard Like Codes Based on Complementary Sequence Sets in a CDMA and Cognitive Underlay System

**Author(s):** Suchitra, G (Suchitra, G.); Valarmathi, ML (Valarmathi, M. L.)

**Source:** WIRELESS PERSONAL COMMUNICATIONS **Volume:** 71 **Issue:** 2 **Pages:** 1311-1329 **DOI:** 10.1007/s11277-012-0876-z **Published:** JUL 2013

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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Zhang ZY, 2009, EURASIP J WIREL COMM, DOI 10.1155/2009/418026

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**Cited Reference Count:** 34

**Abstract:** In this paper, a method of constructing a sequence set similar to Walsh Hadamard (WH) codes is described. In general, two complementary sequence set of length 2 is used as a basic kernel to construct WH codes. In this work, four complementary sequence set of length 3 is used as a basic kernel. The proposed code set have a nearly non linear phase sequences with a more evenly spread frequency spectrum when compared with WH codes. It is shown that the proposed spreading codes perform comparable to WH in a Direct Sequence code division multiple access (DS-CDMA) system in an Additive White Gaussian Noise and Rayleigh channel at a reduced code length. In this work, bit error rate performance of the Underlay Cognitive Radio system implemented using DS-CDMA system is simulated. Primary and Secondary Users are distinguished by assigning spreading codes from different families and it is assumed that the channel information is known by both the Primary and Secondary User receivers. This new code set offers good performance in a Cognitive Radio Underlay system.

**Accession Number:** WOS:000321070900033

**Language:** English

**Document Type:** Article

**Author Keywords:** Complementary sequence set; Multi-path interference; Multiple access interference; Primary User; Secondary User; Cognitive Radio

**KeyWords Plus:** SPREADING SEQUENCES

**Addresses:** [Suchitra, G.] Sri Krishna Coll Technol, Dept ECE, Coimbatore, Tamil Nadu, India.

[Valarmathi, M. L.] Govt Coll Technol, Dept CSE, Coimbatore, Tamil Nadu, India.

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**Publisher:** SPRINGER

**Publisher Address:** 233 SPRING ST, NEW YORK, NY 10013 USA

**Web of Science Categories:** Telecommunications

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**Record 243 of 250**

**Title:** Microstructure of Geopolymer Concrete Based on Fly Ash Using M-Sand

**Author(s):** Anuradha, R (Anuradha, R.); Sreevidya, V (Sreevidya, V.); Venkatasubramani, R (Venkatasubramani, R.)

**Source:** ASIAN JOURNAL OF CHEMISTRY **Volume:** 25 **Issue:** 2 **Pages:** 1095-1097 **DOI:** 10.14233/ajchem.2013.13522 **Published:** FEB 2013

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 1

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 11

**Cited References:** Barbosa VFF, 2000, INT J INORG MATER, V2, P309, DOI 10.1016/S1466-6049(00)00041-6

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**Cited Reference Count:** 11

**Abstract:** Geopolymers prepared from a class F-fly ash and a mixed alkali activator of sodium hydroxide and sodium silicate solution were investigated. A high compressive strength was obtained when the modulus of the activator viz., molar ratio of SiO<sub>2</sub>/Na<sub>2</sub>O was 2.5. Any presence of the temporary phase with different composition was not found between geopolymer and aggregate as it is at the concretes from Portland cement. Geopolymer composition is almost the same in the close nearness even in the geopolymer matrix. Elastic modulus evaluated for the mixed geopolymeric concrete was found to be E = 4389 (f(ck))(0.535) Mpa. Such result is comparable (a little bit lower) to ordinary Portland cement pastes.

**Accession Number:** WOS:000312621300115

**Language:** English

**Document Type:** Article

**Author Keywords:** Geopolymer concrete; M-Sand; Fly ash

**Addresses:** [Anuradha, R.; Sreevidya, V.; Venkatasubramani, R.] Sri Krishna Coll Technol, Dept Civil Engr, Coimbatore 641042, Tamil Nadu, India.

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| ,SREEVIDYA |                             | 0000-0002-3653-1482 |

**Publisher:** ASIAN JOURNAL OF CHEMISTRY

**Publisher Address:** 11/100 RAJENDRA NAGAR, SECTOR 3,, SAHIBABAD 201 005, GHAZIABAD, INDIA

**Web of Science Categories:** Chemistry, Multidisciplinary

**Research Areas:** Chemistry

**IDS Number:** 058GE

**ISSN:** 0970-7077

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**ISO Source Abbrev.:** Asian J. Chem.

**Source Item Page Count:** 3

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**Record 244 of 250**

**Title:** An Emerging Hybrid Approach Based on Intuitionistic Fuzzy C-Means with Intuitionistic Particle Swarm Optimization for Microarray Data

**Author(s):** Kumutha, V (Kumutha, V.); Palaniammal, S (Palaniammal, S.)

**Book Group Author(s):** IEEE

**Source:** 2013 INTERNATIONAL CONFERENCE ON OPTICAL IMAGING SENSOR AND SECURITY (ICOSS 2013) **Published:** 2013

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Cited Reference Count: 15**

**Abstract:** Due to enormous growth in gene (gene function and regulatory mechanisms) with the exposure in advanced techniques, handling high dimensional data still becomes a continuous research. Data mining plays a vital role for inferring hidden information from voluminous data set to retrieve knowledgeable information. Although fuzzy approaches are already implemented in bio-inspirational concept, it lacks to process efficiently in case of incomplete or inconsistent data set. This leads to increased false alarm rate. In this proposed approach, the degree of membership to indeterminacy is extended by adopting the concept of generalization of fuzzy logic, which is known as intuitionistic fuzzy logic. This paper proposes a hybrid approach for clustering high dimensional data set using IFCM and IFPSO to increase the detection accuracy and decrease the false alarm ratio considerably. To find similarity among objects and cluster centers intuitionistic based similarity measure is used. Intuitionistic fuzzy particle swarm optimization optimizes the working of the Intuitionistic FCM. Experimental results of proposed approach shows better results when compared with the existing methods.

**Accession Number:** WOS:000335399400008

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 1st International Conference on Optical Imaging Sensor and Security (ICOSS)

**Conference Date:** JUL 02-03, 2013

**Conference Location:** Coimbatore, INDIA

**Conference Sponsors:** Tejaa Shakthi Inst Technol Women, IEEE ED Soc, India Council, Soc Comp Commun Engineers, Council Sci & Ind Res, Univ N Texas

**Author Keywords:** Intuitionistic fuzzy; FCM; IFPSO; gene expression data

**Addresses:** [Kumutha, V.] DJ Acad Managerial Excellence, Dept Comp Sci, Coimbatore, Tamil Nadu, India.

[Palaniammal, S.] Sri Krishna Coll Technol Coimbatore, Dept Sci & Humanities, Coimbatore, Tamil Nadu, India.

**Reprint Address:** Kumutha, V (reprint author), DJ Acad Managerial Excellence, Dept Comp Sci, Coimbatore, Tamil Nadu, India.

**E-mail Addresses:** kumuthav@gmail.com; splvlb@yahoo.com

**Publisher:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**Web of Science Categories:** Engineering, Electrical & Electronic; Remote Sensing; Optics

**Research Areas:** Engineering; Remote Sensing; Optics

**IDS Number:** BA4DM

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**Record 245 of 250**

**Title:** DATA ISOLATION AND PROTECTION IN ONLINE SOCIAL NETWORKS

**Author(s):** Sureshkumar, A (Sureshkumar, A.); Palanisamy, S (Palanisamy, Sukanya); Sowmiya, S (Sowmiya, Sowdeshwari)

**Book Group Author(s):** IEEE

**Source:** 2013 INTERNATIONAL CONFERENCE ON INFORMATION COMMUNICATION AND EMBEDDED SYSTEMS (ICICES) **Pages:** 150-155 **Published:** 2013

**Times Cited in Web of Science Core Collection:** 0

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**Usage Count (Last 180 days):** 0

**Usage Count (Since 2013):** 0

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**Abstract:** Online social networks such as Facebook, Myspace, and Twitter have experienced exponential growth in recent years. These OSNs offer attractive means of online social interactions and communications, but also raise privacy and security concerns. In this the design issues for the security and privacy of OSNs are discussed. There are inherent design conflicts between these and the traditional design goals of OSNs such as usability and sociability. One of the most commonly used anti phishing algorithm is the DPIS algorithm which is being implemented in this project. Therefore, in order to stop this, a new module called the profile blocker can be included to block these profiles from the network. If the user denies that the profile is not a fake, then the member has to send ID verification to the admin, and the admin can decide the fate of the profile.

**Accession Number:** WOS:000323479300030

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** International Conference on Information Communication and Embedded Systems (ICICES)  
**Conference Date:** FEB 21-22, 2013  
**Conference Location:** Chennai, INDIA  
**Author Keywords:** UMTS; WLAN; SSGN; GSGN; AP; handoff  
**Addresses:** [Sureshkumar, A.; Palanisamy, Sukanya; Sowmiya, Sowdeshwari] Sri Krishna Coll Technol, Dept IT, Coimbatore, Tamil Nadu, India.  
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**E-mail Addresses:** sureshkumar\_mit@yahoo.com; suki.palani@gmail.com  
**Publisher:** IEEE  
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**Record 246 of 250**  
**Title:** An Optimized Clustering Approach for Automated Detection of White Matter Lesions in MRI Brain Images  
**Author(s):** Anitha, M (Anitha, M.); Selvy, PT (Selvy, P. Tamije)  
**Source:** BRAIN-BROAD RESEARCH IN ARTIFICIAL INTELLIGENCE AND NEUROSCIENCE **Volume:** 3 **Issue:** 1 **Published:** FEB 2012  
**Times Cited in Web of Science Core Collection:** 0  
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**Usage Count (Last 180 days):** 0  
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**Cited References:** Anbeek P, 2004, MED IMAGE ANAL, V8, P205, DOI 10.1016/j.media.2004.06.019  
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Yuan KH, 2009, INT J INNOV COMPUT I, V5, P2333  
**Cited Reference Count:** 19  
**Abstract:** Settings White Matter lesions (WMLs) are small areas of dead cells found in parts of the brain. In general, it is difficult for medical experts to accurately quantify the WMLs due to decreased contrast between White Matter (WM) and Grey Matter (GM). The aim of this paper is to automatically detect the White Matter Lesions which is present in the brains of elderly people. WML detection process includes the following stages: 1. Image preprocessing, 2. Clustering (Fuzzy c-means clustering, Geostatistical Possibilistic clustering and Geostatistical Fuzzy clustering) and 3. Optimization using Particle Swarm Optimization (PSO). The proposed system is tested on a database of 208 MRI images. GFCM yields high sensitivity of 89%, specificity of 94% and overall accuracy of 93% over FCM and GPC. The clustered brain images are then subjected to Particle Swarm Optimization (PSO). The optimized result obtained from GFCM-PSO provides sensitivity of 90%, specificity of 94% and accuracy of 95%. The detection results reveals that GFCM and GFCM-PSO better localizes the large regions of lesions and gives less false positive rate when compared to GPC and GPC-PSO which captures the largest loads of WMLs only in the upper ventral horns of the brain.  
**Accession Number:** WOS:000215171200002  
**Language:** English  
**Document Type:** Article  
**Author Keywords:** Geostatistics; fuzzy clustering; particle swarm optimization; possibilistic clustering; white matter changes  
**Addresses:** [Anitha, M.; Selvy, P. Tamije] Sri Krishna Coll Technol, Dept Comp Sci & Engn, Coimbatore, Tamil Nadu, India.  
**Reprint Address:** Anitha, M (reprint author), Sri Krishna Coll Technol, Dept Comp Sci & Engn, Coimbatore, Tamil Nadu, India.  
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| Author          | Web of Science ResearcherID | ORCID Number |
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**Record 247 of 250**

**Title:** Performance Analysis and Dispersion Compensation in Ultra Long-Haul 10Gbps Optical System by OPC

**Author(s):** Doss, MP (Doss, Pradeep M.); Sridarshini, T (Sridarshini, T.); Valliammai, M (Valliammai, M.)

**Edited by:** Krishna PV; Babu MR; Ariwa E

**Source:** GLOBAL TRENDS IN COMPUTING AND COMMUNICATION SYSTEMS, PT 1 **Book Series:** Communications in Computer and Information Science **Volume:** 269 **Pages:** 545-+ **Published:** 2012

**Times Cited in Web of Science Core Collection:** 0

**Total Times Cited:** 0

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**Usage Count (Since 2013):** 4

**Cited References:** FISHER RA, 1983, OPT LETT, V8, P611, DOI 10.1364/OL.8.000611

Inoue K, 1992, IEEE PHOTON TECHNOLO, V4

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Lorattanasane C, 1997, J LIGHTWAVE TECHNOL, V15, P948, DOI 10.1109/50.588664

Thirumaran S, 2011, AIP CONF PROC, V1391, DOI 10.1063/1.3643562

Watanabe S, 1996, J LIGHTWAVE TECHNOL, V14, P243, DOI 10.1109/50.485581

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YARIV A, 1979, OPT LETT, V4, P52, DOI 10.1364/OL.4.000052

**Cited Reference Count:** 8

**Abstract:** Dispersion limits the transmission distances and information carrying capacity of Long-Haul optical systems. In this paper, the compensation of Dispersion, an inherent property of all Optical fibers, by optical phase conjugation (OPC) technique is studied. Also, the required number and fashion of OPCs to be introduced in Ultra Long-Haul optical transmission system, to have highly reliable transmission of information, is experimented through simulation in 10Gbps, 30000kms fiber-optic link.

**Accession Number:** WOS:000312914300061

**Language:** English

**Document Type:** Proceedings Paper

**Conference Title:** 4th ObCom International Conference on Recent Trends in Computing, Communication and Information Technology

**Conference Date:** DEC 09-11, 2011

**Conference Location:** Vellore, INDIA

**Conference Sponsors:** Vellore Inst Technol Univ, Sch Comp Sci & Engn

**Author Keywords:** Dispersion; Dispersion compensation; Optic-fiber link; Fiber-optic communication; Phase conjugation

**Addresses:** [Doss, Pradeep M.] Sri Krishna Inst Technol, Madras, Tamil Nadu, India.

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|-------------------------|-----------------------------|---------------------|
| Thirumaran, Sridarshini | AAE-7874-2019               | 0000-0001-9922-4378 |

**Publisher:** SPRINGER-VERLAG BERLIN

**Publisher Address:** HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

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**Record 248 of 250**

**Title:** Comparative Performance Evaluation of Power and Area Network on Chip (NoC) Architectures

**Author(s):** Kalimuthu, A (Kalimuthu, A.); Karthikeyan, M (Karthikeyan, M.)

**Book Group Author(s):** IEEE

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**Cited References:** [Anonymous], 2005, COMP NETW CHIP BUSS

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**Abstract:** Network on Chip (NoC) is rising as an efficient solution to solve the aggravating scalable interconnection architecture, designed in reality. The increasing quantity of cores that area unit integrated on a silicon die and, however the technology scaling has enabled designers to integrate many processors on a single chip realizing chip multi-processor (CMP). Problems arising from technology scaling have created power reduction, a very important design issue. Because the interconnection networks dissipate a significant portion of the total power budget, as interconnection network's power efficiency and designing CMP are desirable. This paper provides comparative performance, area and power evaluation of the Network on Chip (NoC) proposals. The challenge to the efficiency of multi-core chips is that the energy functions communication with cores over a Network on Chip (NoC). If the several cores increase this energy, additionally will be increasing, imposing serious constraints on design and performance of each applications and architecture. Hence, the various design selections on Network on Chip (NoC) power consumption are critical to the achievement of the multi-core designs.

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**Conference Date:** DEC 18-20, 2012

**Conference Location:** Tamilnadu Coll Engn, Coimbatore, INDIA

**Conference Sponsors:** IEEE, IEEE Podhigai Subsect Madras Sect, IEEE Signal Proc, Computat Intelligence & Comp (SIPICOM) Joint Soc Chapter Madras Sect

**Conference Host:** Tamilnadu Coll Engn

**Author Keywords:** Network-on-chip (NoC); Topology; case study; evaluation

**KeyWords Plus:** DESIGN

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**Reprint Address:** Kalimuthu, A (reprint author), Sri Krishna Coll Technol, Dept Elect & Commun Engn, Coimbatore, Tamil Nadu, India.

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**Record 249 of 250**

**Title:** Double inequalities on means via quadrature formula

**Author(s):** Nagaraja, KM (Nagaraja, K. M.); Reddy, PSK (Reddy, P. Siva Kota)

**Source:** NOTES ON NUMBER THEORY AND DISCRETE MATHEMATICS **Volume:** 18 **Issue:** 1 **Pages:** 22-28 **Published:** 2012

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**Cited References:** Bullen P., 2003, HDB MEANS THEIR INEQ

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**Abstract:** In this paper, using Simpson's quadrature formula and Jensen inequality for convex function, we obtained some double inequalities among various means.

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**Author Keywords:** Inequality; Simpson's rule; Convex function; Jensen inequality

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Record 250 of 250

Title: An inventive approach of stability for Voltage Regulator Modules with High Frequency Multiphase Buck Converters

Author(s): Varghese, MP (Varghese, Mini. P.); Manjunatha, A (Manjunatha, A.); Raghu, CN (Raghu, C. N.)

Book Group Author(s): IEEE

Source: IEEE INTERNATIONAL CONFERENCE ON POWER ELECTRONICS, DRIVES AND ENERGY SYSTEMS (PEDES 2012) Published: 2012

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Cited References: Agrawal Jitendra, 2005, IEEE PEDS 2005

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Zhou XW, 2000, IEEE T POWER ELECTR, V15, P1172, DOI 10.1109/63.892832

Cited Reference Count: 11

**Abstract:** Fast transient response and very low ripple are the most important requirements for the Voltage Regulator Modules; (VRMs), which are used to power advanced microprocessors. In this paper, an inventive approach of stability to multiphase buck converter design with feedback compensation is proposed. To demonstrate the stability of multiphase buck converter, a VRM prototype with two phase interleaved buck converter was designed and tested. The two phase buck converter indicates paralleling of two buck converters with interleaved switching instants. A new design technique for feedback compensation with peak current mode control is attempted in the prototype designed. This type of feedback compensation was chosen as it gives higher bandwidth for improving the transient response. The two phase buck converter has been designed and simulated using ORCAD software. Simulation results were found to be in good agreement with theoretical predictions. These predictions were supported by experimental results on the 30V/9V, 12A, 200 KHz, high frequency two phase interleaved buck converter.

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Author Keywords: Buck converter; Multiphase; VRM

KeyWords Plus: TRANSIENT-RESPONSE

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