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# SKCT DIGEST

THE PRIDE OF OUR REFLECTION

MAY  
2024



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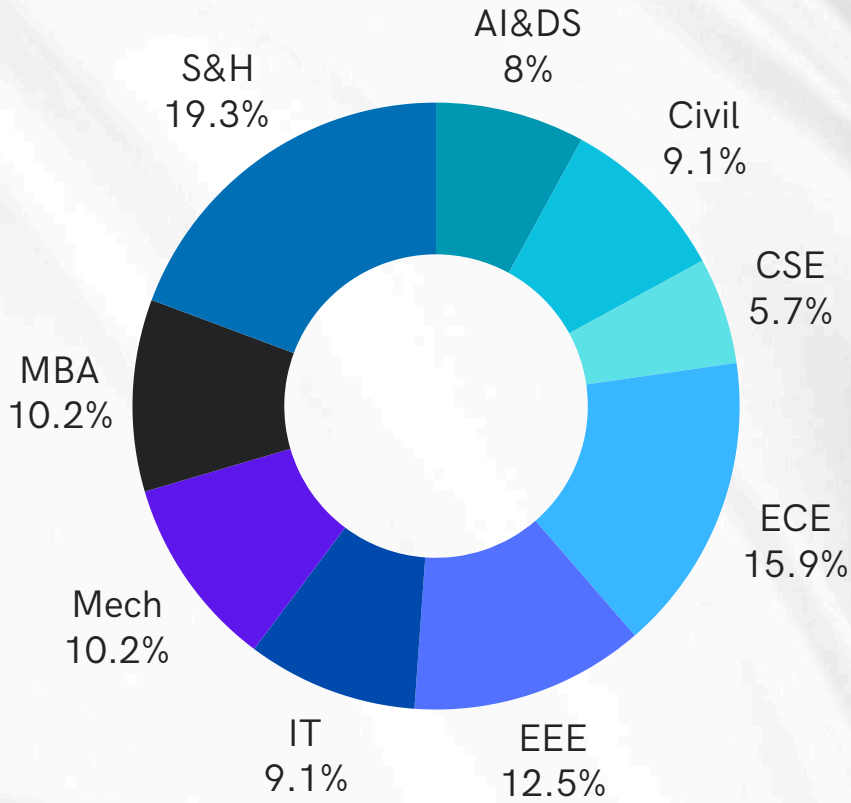
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**ACHIEVEMENT** **KRISHNA TROPHY 2024**

**Sri Krishna College of Technology has won the KRISHNA TROPHY 2024,** the State Level Inter Engineering College Staff Cricket Tournament.

Congratulations to the team for their outstanding performance and well-deserved victory!

**CONGRATULATIONS -**

**CHAMPIONS  
CHAMPIONS  
CHAMPIONS**

  
SRI KRISHNA COLLEGE OF TECHNOLOGY  
TECHNOLOGY FOR PROSPERITY  
COIMBATORE  
1983**KRISHNA TROPHY 2024**2<sup>nd</sup> - State level Inter Engineering College  
Staff Cricket Tournament

## ACHIEVEMENT

Sri Krishna College of Technology has achieved an  
**AA Rating and secured the 69th position**  
**in the NPTEL ratings for Jan – May 2024.**

A big congratulations and heartfelt thanks to all the students, faculty members, mentors, NPTEL-SPOC, HoDs, and Deans for their dedication and hard work in making this possible.



# SKCT ACHIEVEMENT



## AY 2023-24 – NPTEL Accomplishment

Certification Level	2023-24 ODD		2023-24 EVEN	
	Student	Faculty	Student	Faculty
Topper	7	1	17	4
Elite + Gold	0	0	5	2
Elite + Silver	52	12	104	10
Elite	248	36	814	18
Successfully Completed	438	17	821	21
<b>Total</b>	<b>738</b>	<b>65</b>	<b>1744</b>	<b>51</b>



# coursera

**1015 students and 100 faculty members completed courses through Coursera**



**3500+ completed the upskilling NAASCOM certifications during this academic year.**

# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

## ACHIEVEMENT

**Dr Praveen Kumar E/AP** received **"Research Award"** at VIT-AP University on 24 May 2024. Dedication and his significant contributions to research are truly inspiring. Wishing continued success and many more achievements!



## FACULTY ACHIEVEMENT

# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

## CERTIFICATIONS

**Ms Sugitha A, AP/CYS, Ms Soundarya S, AP/AIML and Mr Praveen Kumar E, AP/IoT** participated in an **IP Awareness/Training Programme** under **NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION** on **23 April 2024** organised by **Intellectual Property Office, India**.



## FACULTY PARTICIPATIONS

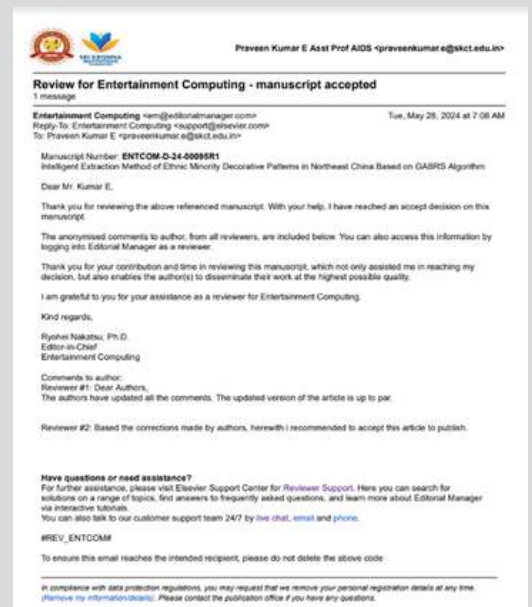
# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Dr Praveen Kumar E/AP defended his Ph.D. Viva-voce on **"Analysis of Hardware - Assisted Security Techniques for Malware Detection and Device Authentication"** at VIT-AP University on 23 May 2024.



## FACULTY PARTICIPATION

**Dr Praveen Kumar E** from the Department of **CSE (IoT)** served as one of the reviewers in a **Journal Entertainment Computing - ELSEVIER** (SCIE and Scopus Indexed).



## FACULTY PARTICIPATION



# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

## CERTIFICATION

**Ms Soundarya S, AP/AIML** completed 21-day Master Class on “**Natural Language Processing**” through online mode offered by **Pantech e-Learning Pvt. Ltd., Chennai.**



## FACULTY PARTICIPATION

**Dr Suma Sira Jacob, ASP/AI&DS** published an article on “**Machine Learning Assisted Autonomous Vehicle in an IoT Environment**” in the **Journal Proceedings of the Bulgarian Academy of Sciences, an SCI Journal.**

Co-authored by **Dr Lijo Jacob Varghese, Prof./EEE** and **Dr Jaisiva Selvaraj, ASP/EEE.**

Доклади на Българската академия на науките  
Comptes rendus de l'Académie bulgare des Sciences  
Tome 77, No 3, 2024

ENGINEERING SCIENCES  
Control systems

**MACHINE LEARNING ASSISTED AUTONOMOUS VEHICLE IN AN IoT ENVIRONMENT**

Suma Sira Jacob<sup>1</sup>\*, Lijo Jacob Varghese<sup>2</sup>, Jaisiva Selvaraj<sup>2</sup>, Sathish Kumar Shanmugam<sup>3</sup>

Received on November 2, 2023  
Presented by Ch. Roumenin, Member of IAS, on January 30, 2024

### Abstract

The article presents the design of a controlled autonomous vehicle intended to perform specific job functions for impaired people by integrating Machine learning technique in an IoT environment along with hand-controlled gestures. In this paper, a novel multi-control autonomous vehicle is specially designed to cater the needs of disabled patients and senior citizens. The operation of this vehicle is fully motorized and gesture-controlled which involves physical implementation of hardware device with software for integrating, coding, interfacing and testing. This Machine learning based autonomous vehicle is completely designed with sensors and interactive cameras controlled by a smart processor unit that can control the various tasks which are designed to perform for the physically impaired people.

**Key words:** gesture control, machine learning, autonomous vehicle

## FACULTY PARTICIPATION

# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

## CERTIFICATIONS

**Ms Varshni Nandakumar**, Student of II B.E CSE (IoT), completed an online course on **‘Cloud Computing and Distributed Systems’** with **SILVER – Elite** through NPTEL.



**Ms Apoorva J**, Student of II B.E CSE (IoT), completed an online course on **‘Data Science for Engineers’** with **Elite** through NPTEL.



**Ms Sree Aishwarya G**, Student of II B.E CSE (IoT), completed an online course on **‘Data Base Management System’** with **Elite** through NPTEL.



## STUDENTS PARTICIPATION

# CIVIL

## CERTIFICATIONS

**Mr C Yokeshwaran, Student of III B.E. Civil Engineering,** completed an online course on **“Advanced Contracts, Tendering and Public Procurement”** with **Elite** through NPTEL.



## STUDENT ONLINE CERTIFICATION

**Ms Shruthi Manoharan, Student of III B.E. Civil Engineering,** completed an online course on **“Advanced Contracts, Tendering and Public Procurement”** with **Elite** through NPTEL.



## STUDENT ONLINE CERTIFICATION

# CIVIL

## PUBLICATION

**Dr P Subashree/ASP** published a paper on **“Unleashing the Potential of Ceramic Discards as a Green Marvel in Self-compacting Concrete”** in a Journal of **Ceramic Processing Research (Q3 Journal)**, SCIE & Scopus indexed journal, with an impact factor of on 30 April 2024.

*Journal of Ceramic Processing Research, Vol. 25, No. 2, pp. 220-227 (2024)*  
*(Received 7 December 2023, Received in revised form 24 February 2024, Accepted 26 February 2024)*  
<https://doi.org/10.36410/jcpr.2024.25.2.220>

JOURNAL OF  
**Ceramic  
 Processing Research**

### Unleashing the potential of ceramic discards as a green marvel in self-compacting concrete

P. Subashree<sup>a\*</sup>, V. Sampathkumar<sup>b</sup>, S. Gowtham<sup>c</sup>, Abeer A. AlObeid<sup>d</sup> and Ismail Ward<sup>e</sup>

<sup>a</sup>Department of Civil Engineering, Sri Krishna College of Technology, Coimbatore, Tamilnadu, India-641042

<sup>b</sup>Department of Civil Engineering, Kongu Engineering College, Perundurai, Erode, Tamilnadu, India-638066

<sup>c</sup>Department of Civil Engineering, Kongu College of Engineering and Technology, Trichy, Tamilnadu, India-621215

<sup>d</sup>Department of Chemistry, College of Science, King Saud University, P.O. Box 2455, Riyadh 11451, Saudi Arabia

<sup>e</sup>Department of Chemistry, AN-Najah National University, P.O. Box 7, Nablus, Palestine

A nation's ability to advance depends heavily on its infrastructure, which is frequently built using concrete. Self-compacting concrete (SCC) is well-liked for its mechanical, durability and workability. But there is a problem: natural aggregate is scarce. In light of the depletion of natural resources, investigating substitute materials is essential to maintaining building quality. The ceramic tile business has developed into a highly industrialized sector within the last 20 years, producing a large amount of trash. This trash presents environmental risks and pollutes the air, water, and land since it is made up of ceramic combinations. The environment and public health are adversely affected by around 30% of the trash produced every day in the ceramic industry. Although some research points to the possible use of ceramic waste in building materials, its acceptance is hampered by a lack of clear regulations, which puts the sector in the face of growing waste management difficulties. This research looks at using leftover ceramic tile as fine aggregate in SCC. Six SCC mixes were made, with the amount of leftover ceramic tile ranging from 0% to 50%. Based on fresh, mechanical, and durability qualities, the mix's density and homogeneity are enhanced by the use of discarded ceramic tile. The SCC combinations provide positive results in terms of improved mechanical strength and optimum durability qualities, especially when natural M-sand is substituted by 40%.

**Keywords:** Ceramic waste, Durability and properties, Self-compacting concrete, SCC mixer, Workability properties.

#### Introduction

Alkali-activated mortars (AAMs) were evaluated for their efficacy by substituting waste ceramic powder (WCP) in different weight percentages for binding material (30, 60, and 70%). A flow test was part of the assessment to ascertain workability, and the results showed a significant relationship between WCP concentration and flow values [1]. There was a steady rise in flow values as the fraction of WCP increased from 50% to 70%. This finding implies that adding larger amounts of WCP has a beneficial effect on how workable the alkali-activated mortars are. According to the study, it is possible to strategically add waste ceramic powdered material to improve the flow properties of AAMs, which might have advantages for construction applications where better workability is essential [2].

Slag and cement in SCC are partially replaced by WCP. Between groups one (0%, 25%, 57%) and two (0%, 20%, 40, 60%) by weight of cement, different amounts of waste material were added [3]. The researcher

has looked at the different characteristics of both freshly-poured and dried concrete. Based on the investigation, it was concluded that using WCP to replace 40% of the cement weight in fresh and cured concrete produced good results that met international standards [4]. The way WCP affects SCC. Different percentages of WCP, including 0%, 5%, 10%, 15%, 20%, 25%, 30%, and fly ash 25%, were used in place of cement. Two varieties of concrete grades, such as M-30 and M-35, were examined by the researcher. According to the study, adding WCP in increments of 0 to 10% and 25% fly ash was found to be advantageous for SCC. The SCC's splitting tensile strength, modulus of rupture, and axial strength all declined as the amount of WCP increased [5].

Investigating the many characteristics of SCC mixes, such as density, axial strength, split tensile strength, UPV, and bond performance, WCP is used in SCC as a partial replacement of cement in amounts ranging from five percentage and twenty percentage. Five percentage of interval by weight. As the WCP ratio increased, so did the new concrete's flowability [6]. Up to 15% cement substitution with waste ceramic powder yields favorable results; however, any increases in WCP content result in lower compressive and split tensile strengths [7]. Utilizing WC tile powder as a substitute for up to 80%

\*Corresponding author  
 Tel: +91-9870593349  
 E-mail: subashree.p@skct.edu.in

## FACULTY PARTICIPATION

CIVIL

PUBLICATION

Ms K Vedhasakthi/AP published a paper on "A Proposed Model and Performance Study on Prefabricated Cage Reinforced Self-Compacting Concrete Deep beams" in a Iranian Journal of Science and Technology - Transactions in Civil Engineering (Springer), SCIE/WoS and Scopus indexed journal with an Impact factor of 1.7 on 05 May 2024.

Iranian Journal of Science and Technology, Transactions of Civil Engineering  
https://doi.org/10.1007/s40996-024-01440-7

RESEARCH PAPER



A Proposed Model and Performance Study on Prefabricated Cage-Reinforced Self-compacting Concrete Deep Beams

K. Vedhasakthi<sup>1</sup> · R. Chithra<sup>2</sup>

Received: 23 January 2024 / Accepted: 8 April 2024  
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Abstract

High-rise buildings, bridges, pile foundations, and offshore structures comprise deep beams as an important structural component for transferring heavy loads. The modern era of construction demands speedy construction which led to the need for a change in reinforcement system known as a prefabricated cage system (PFCS). This study focuses on the application of PCS in deep beam construction using self-compacting concrete (SCC). The experimental investigation has been carried out by testing twelve deep beams, out of which two deep beams have been constructed with conventional reinforcement and ten deep beams have been constructed with prefabricated cages. The experimental behaviour of deep beams has been examined with different web reinforcement configurations and shear-span to depth ratios of 0.5, 0.75, and 1. The findings showed that as the  $a/D$  ratio rises, the failure mode shifts to flexural shear. Prefabricated cage-reinforced deep beams, incorporating both vertical and horizontal web reinforcement, have demonstrated higher ultimate strength ranging from 7.1% to 10.6% compared to conventional deep beams. A reserve strength factor of 0.45 indicates good reserve strength efficiency. Moreover, an increasing trend in displacement ductility and a decreasing trend in energy absorption capacity have been observed with the increase in the  $a/D$  ratio. The energy absorption capacity of PCS-reinforced deep beams has been observed to be in the range of 20.11% to 33.38% higher than conventional ones. The proposed equation for predicting the ultimate strength of prefabricated cage-reinforced deep beams is conservative, while the ACI 318–2019 equation slightly overestimates the ultimate strength. Thus, PCS represents an efficient construction method for deep beams, offering both commendable ultimate strength and ductility.

**Keywords** Prefabricated cage system · Self-compacting concrete · Deep beams · Displacement ductility · Energy ductility · Strut and tie model

List of Symbols

$A_{st}$	Area of longitudinal steel reinforcement
$A_p$	Area of CFS plate
$f_y$	Yield strength of steel reinforcement
$f_{yp}$	Yield strength of CFS plate
$A_{sv}$	Area of vertical web reinforcement
$A_{sh}$	Area of horizontal web reinforcement
VH	Vertical and Horizontal web reinforcement
V	Vertical-only web reinforcement

H	Horizontal-only web reinforcement
D	Overall depth
d	Effective depth
$f_{cu}$	Cube compressive strength of concrete
$f'_c$	Cylinder compressive strength of concrete
$\mu_\Delta$	Displacement ductility factor
$\mu_E$	Energy ductility index
$V_u$	Ultimate strength
$V_c$	Shear contribution of concrete
$V_s$	Shear contribution of steel
$V_u^{exp}$	Experimental ultimate strength
$V_u^{pred}$	Predicted ultimate strength based on the proposed equation
$V_u^{ACI}$	Predicted ultimate strength based on ACI 318-2019 STM

✉ K. Vedhasakthi  
shakthivil@gmail.com  
R. Chithra  
chithrajothin@gmail.com

<sup>1</sup> Department of Civil Engineering, Sri Krishna College of Technology, Coimbatore, Tamilnadu 641042, India

<sup>2</sup> Department of Civil Engineering, Government College of Technology, Coimbatore, Tamilnadu 641013, India

Abbreviations

CFS	Cold Formed Steel
ACI	American Concrete Institute

Published online: 05 May 2024



FACULTY PARTICIPATION

## CIVIL

### CERTIFICATION

**Dr N Shanmuganathan/AP** attended a webinar on **“Celebrating National Technology Day – Emerging Technologies to make Libraries more Inclusive”** organised by DELNET- Developing Library Network on 11 May 2024.



### FACULTY PARTICIPATION

# CIVIL

## EVENT

The Department of Civil Engineering in association with Institutions Innovation Council and Structekz Club organised a Workshop on **“Innovative Practices for Efficient Detailing Workflows using AutoCAD”** for the Students of First and Second B.E. Civil Engineering on 27 April 2024. **Dr V Sathish Kumar, ASP/Civil**, served as the Resource Person.

**SRI KRISHNA COLLEGE OF TECHNOLOGY**  
(An Autonomous Institution) Coimbatore

DEPARTMENT OF CIVIL ENGINEERING  
Cordially invites you to join

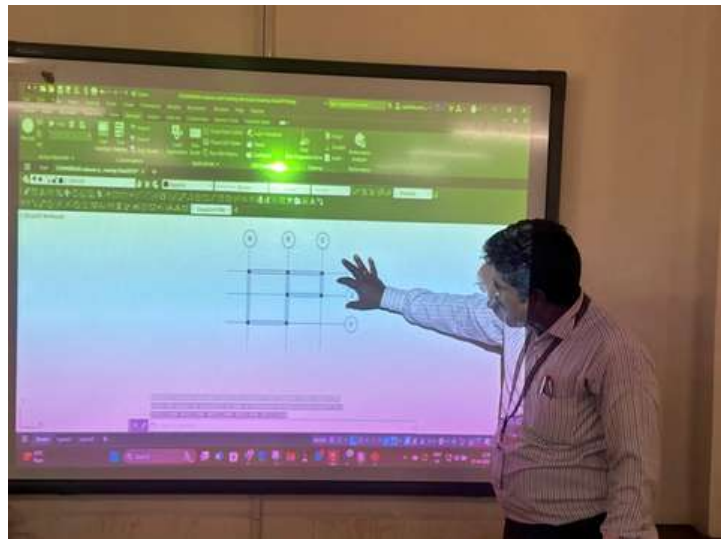
Workshop on Innovative Practices for efficient detailing workflows using AutoCAD

Date: 27.04.2024  
Venue: Civil CAD Lab

**Dr. V. Sathish Kumar**  
ASP/Civil  
Sri Krishna College of Technology, Coimbatore

Student Coordinators: Mr. G. Ajal, Mr. S. Barani, Ms. S. Sivaranjani  
Faculty Coordinator: Mr. R. Ramesh  
Convenor: Dr. V. Sreevidya, HOD-Civil  
Principal: Dr. M. G. Sumithra

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## EVENT ORGANISED

## CIVIL

### CERTIFICATION



### Geographic Information Systems



#### Elite

Mr Muhammed Saiful Islam – III B.E. Civil Engineering

#### Completed

Mr Mohan Raj K – III B.E. Civil Engineering  
Mr Mathavan P – III B.E. Civil Engineering

### STUDENTS CERTIFICATION



# CIVIL

## CERTIFICATION



### Education for Sustainable Development

**Elite**  
**NPTEL Online Certification**  
 (Funded by the MoE, Govt. of India)

This certificate is awarded to  
**SRINIVAS K**  
 for successfully completing the course  
**Education for Sustainable Development**  
 with a consolidated score of **100 %**

Online Assignments	25/25	Proctored Exam	75/75
--------------------	-------	----------------	-------

Total number of candidates certified in this course: 5889

Jan-Apr 2024  
 (12 week course)

Prof. Haimanti Banerji  
 Coordinator, NPTEL  
 IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL24HS04S653804138 To verify the certificate [QR Code] No. of credits recommended: 3 or 4

**Elite TOPPER**  
Mr Srinivas K – I M.E. Structural Engineering

**Completed**  
Mr Nishanth – I M.E. Structural Engineering  
Mr D R Sarankumar – I M.E. Structural Engineering

## STUDENTS CERTIFICATION

# CIVIL

## CERTIFICATION



### Advanced Contracts, Tendering and Public Procurement



## NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to  
**GURUBARATHVAJ**  
for successfully completing the course

### Advanced Contracts, Tendering and Public Procurement

with a consolidated score of **46** %

Online Assignments	15.63/25	Proctored Exam	30/75
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Total number of candidates certified in this course: 227

**Prof. Devendra Jalihal**  
Chairperson,  
Centre for Outreach and Digital Education, IITM

Jan-Apr 2024  
(12 week course)

**Prof. Andrew Thangaraj**  
NPTEL, Coordinator  
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL24LW01S1053805555

To verify the certificate



No. of credits recommended: 3 or 4

## STUDENT CERTIFICATION

# CIVIL

## CERTIFICATIONS

**Ms N Jothi Lakshmi/AP** completed an online course on **“Municipal Solid Waste Management in Developing Countries”** authorized by École Polytechnique Fédérale de Lausanne and offered through **Coursera** on 16 May 2024.



**Ms N Jothi Lakshmi/AP** completed an online course on **“Smart Cities – Management of Smart Urban Infrastructures”** authorized by École Polytechnique Fédérale de Lausanne and offered through **Coursera** on 17 May, 2024.



## FACULTY PARTICIPATION

# CIVIL

## CERTIFICATIONS

**Ms N Jothi Lakshmi/AP** completed an online course on **“Renewable Energy: Fundamentals and Job Opportunities”** authorized by University at Buffalo and offered through **Coursera** on 22 May 2024.



**Ms N Jothi Lakshmi/AP** completed an online course on **“The Science of Success: What Researchers Know that You Should Know”** authorized by University of Michigan and offered through **Coursera** on 21 May 2024.



## FACULTY PARTICIPATION

# CIVIL

## CERTIFICATIONS

**Ms K Vedhasakthi/AP** completed an online course on **“Smart Cities – Management of Smart Urban Infrastructures”** authorized by École Polytechnique Fédérale de Lausanne and offered through **Coursera** on 17 May 2024.



**Ms N Jothi Lakshmi/AP** completed an online course on **“The Science of Success: What Researchers Know that You Should Know”** authorized by University of Michigan and offered through **Coursera** on 21 May 2024.



## FACULTY CERTIFICATION

CIVIL

CERTIFICATIONS

**Ms K Vedhasakthi/AP** completed an online course on **“Renewable Energy: Fundamentals and Job Opportunities”** authorized by University at Buffalo and offered through **Coursera** on 22 May 2024.



**Mr Manoj K M/AP** completed an online course on **“Municipal Solid Waste Management in Developing Countries”** authorized by École Polytechnique Fédérale de Lausanne and offered through **Coursera** on 16 May 2024.

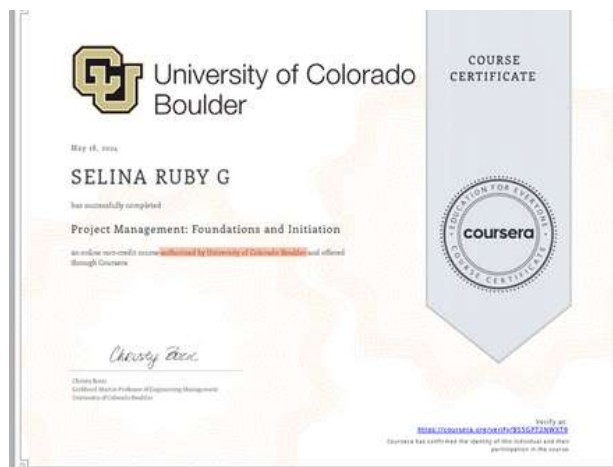


FACULTY CERTIFICATION

# CIVIL

## CERTIFICATIONS

**Ms G Selina Ruby/AP** completed an online course on **“Project Management: Foundations and Initiation”** authorized by University of Colorado Boulder and offered through **Coursera** on 18 May 2024.



**Mr R Ramesh/AP** completed an online course on **“ChatGPT for Beginners: Save time with Microsoft Excel”** authorized by Coursera Project Network and offered through **Coursera** on 22 May 2024.



## FACULTY CERTIFICATION

CIVIL

CERTIFICATIONS

**Dr V Sathish Kumar/ASP** completed an online course on **“Geographic Information Systems”** organised by IIT Roorke and offered through **NPTEL** during January–April 2024.



**Mr G Jaya Kumar/AP** completed an online course on **“Education for Sustainable Development”** organised by IIT Kharagpur and offered through **NPTEL** during January–April 2024.



FACULTY CERTIFICATION



CIVIL

CERTIFICATIONS

Ms G Selina Ruby/AP completed an online course on “Education for Sustainable Development” organised by IIT Kharagpur and offered through NPTEL during January–April 2024.



Ms G Selina Ruby/AP completed NPTEL–AICTE FDP on “Education for Sustainable Development” organised by IIT Kharagpur during January–April 2024.



FACULTY CERTIFICATION

CIVIL

CERTIFICATION

**Ms N Jothi Lakshmi/AP** completed a hybrid course on **“A Hybrid Course on Water Quality – An Approach to People’s Water Data”** offered by IIT Madras, Tel Aviv University and KMCH Research Foundation during January–May 2024.



FACULTY CERTIFICATION

# COMPUTER SCIENCE AND ENGINEERING

## PLACEMENT

**Mr Prasana V, Ms Deeksha S and Mr Magesh Prabhu C**, bagged an **internship offer** at **IBM** with a stipend of **Rs. 30,000/-**.



## PLACEMENT DETAILS



**Ms G Sandhya/CSE & Dr R Ganesh/S&H**, Asst. Professors, conducted an **Quarterly Progress Review Meeting of Quarter 3** at **CSI College of Engineering, Ketti, The Nilgiris** on **09 May 2024**.

## REVIEW MEETING

# COMPUTER SCIENCE AND ENGINEERING

## CERTIFICATION

**Dr M Dhurgadevi/ASP** presented a paper in the National conference on **“Low Carbon Materials for Environmental Sustainability 2024”** organised by Sathyabama Institute of Science and Technology, Chennai.



## FACULTY PRESENTATION



**Dr R Vidhya/ASP** presented a paper in the 14th International conference on **“Science & Innovation Engineering 2024”** organised by Prince Shri Vekateswara Padmavathy Engineering College, Chennai in association with Manipal University College, Malaysia.

## FACULTY PRESENTATION

# COMPUTER SCIENCE AND ENGINEERING

## PUBLICATION

**Ms G Sandhya/AP** published two papers on **“Prediction of Diabetics Using Hybrid Feature Selection with KNN and ANN”** in the Proceedings of World Conference on Information Systems for Business Management (Indexed in Scopus) and **“Efficient Fire Detection and Automation Using Haar Cascade”** in the Proceedings of International Conference on Information and Communication Technology for Competitive Strategies (Indexed in Scopus).



## FACULTY PUBLICATION

# COMPUTER SCIENCE AND ENGINEERING

## EVENT

**Ms G Sandhya/CSE and Dr R Ganesh/S&H, Asst. Professors**, served as Resource Persons in a Workshop on **“Intellectual Property Rights (IPRs) and IP Management”** for Startup at CSI College of Engineering, Ketti, The Nilgiris on 09 May 2024.



## EVENT ORGANISED

# ELECTRONICS AND COMMUNICATION ENGINEERING

## PARTICIPATION

Dr C Senthilkumar/AP participated in **“Tektronix Semicon Skill India Programme”** organised by the Tektronix India Pvt. Ltd., Bangalore on 03 May 2024.



## FACULTY PARTICIPATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## PARTICIPATION

Dr M Thillai Rani, Dr M Priyatharishini and Dr M Thirrunavukkarasu completed 12-week NPTEL course on “Digital Design with Verilog” and secured the **Topper Position**.

**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **M THILLAI RANI** for successfully completing the course **Digital Design with Verilog**

with a consolidated score of **81 %**

Online Assignments	20.88/25	Proctored Exam	59.69/75
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Total number of candidates certified in this course: **1068**

Jan-Apr 2024  
(12 week course)

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL24CS615563800993 To verify the certificate

No. of credits recommended: 3 or 4

**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **PRIYATHARISHINI M** for successfully completing the course **Digital Design with Verilog**

with a consolidated score of **78 %**

Online Assignments	21.31/25	Proctored Exam	56.63/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **1068**

Jan-Apr 2024  
(12 week course)

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL24CS615563800193 To verify the certificate

No. of credits recommended: 3 or 4

**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **R R THIRRUNAVUKKARASU** for successfully completing the course **Digital Design with Verilog**

with a consolidated score of **63 %**

Online Assignments	20.28/25	Proctored Exam	42.86/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **1068**

Jan-Apr 2024  
(12 week course)

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL24CS615563803958 To verify the certificate

No. of credits recommended: 3 or 4

Ms S Jaipriya/AP completed 12-week NPTEL course on “Computer Networks and Internet Protocol” and secured “Elite.”

**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **JAIPRIYA S** for successfully completing the course **Computer Networks and Internet Protocol**

with a consolidated score of **67 %**

Online Assignments	14.53/25	Proctored Exam	52.04/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **9310**

Jan-Apr 2024  
(12 week course)

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL24CS198293800430 To verify the certificate

No. of credits recommended: 3 or 4

## FACULTY PARTICIPATION



# ELECTRONICS AND COMMUNICATION ENGINEERING

SKCT DIGEST

## PUBLICATION

Dr M G Sumithra, Principal, published a research article on “Improved Spectrum Prediction Model for Cognitive Radio Networks Using Hybrid Deep Learning Technique” in an International Journal of Intelligent Networks in May 2024.

5/13/24, 6:58 PM

Improved Spectrum Prediction Model for Cognitive Radio Networks Using Hybrid Deep Learning Technique - ScienceDirect



ScienceDirect

International Journal of Intelligent Networks

Available online 10 May 2024

In Press, Journal Pre-proof [What's this?](#)

## Improved Spectrum Prediction Model for Cognitive Radio Networks Using Hybrid Deep Learning Technique

Sumithra M.G.<sup>1</sup> Suriva M.<sup>2</sup> <sup>1</sup> Sri Krishna College of Technology, Coimbatore 641 042, Tamil Nadu, India<sup>2</sup> Sri Eshwar College of Engineering, Coimbatore 641 202, Tamil Nadu, India

Received 19 December 2023, Revised 2 April 2024, Accepted 4 May 2024, Available online 10 May 2024.

[What do these dates mean?](#)

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### Highlights

- To explore the spectrum shortage in 5G and Beyond networks using Cognitive Radio (CR) Technology for dynamic and intelligent spectrum access.
- We propose a novel hybrid channel state prediction model using deep learning called Hybrid LSTM-MLP (Long Short-Term Memory-Multilayer Perceptron) to enhance the spectrum prediction task in 5G networks using CR.
- The performance of the proposed model is evaluated using a real-world GSM 900 Spectrum Dataset.

### ABSTRACT

Cognitive Radio (CR) technology has been highlighted as one of the most likely answers to the issue of spectrum shortage with the rise of fifth generation and beyond communication. Secondary users (SUs) in cognitive radio networks (CRN) must continuously monitor the spectrum to forecast channel occupancy by primary users (PUs) based on fundamental factors, such as location, time, and RF band. A hybrid deep learning model called LSTM-MLP (Long

<https://www.sciencedirect.com/science/article/pii/S2666603024000228?via=ihubfaps0010>

1/16

## FACULTY PUBLICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## PUBLICATION

Dr M Thillai Rani/ASP published a research article on "IOT-based Smart and Economic Greenhouse Monitoring and Auto-tuned Control System for Rural Farming" in the Journal of **Theoretical and Applied Information Technology (JATIT)**, an Open Access International Journal - Scopus Indexed in April 2024.



**ABSTRACT**

Greenhouse cultivation plays a significant role in the agricultural sector, particularly in Asia, where it supports a substantial population. However, the challenges of water scarcity, food shortages, and the need for precise environmental parameter control necessitate innovative solutions. In this study, an IoT-based Smart Greenhouse Monitoring System is proposed to optimize greenhouse conditions and improve agricultural practices. This system utilizes sensors to monitor key environmental parameters within the greenhouse such as temperature, light intensity, and soil moisture. These sensors continuously collect data, which is then transmitted to a microcontroller board. The board performs data analysis and sends the information to an online web server through a Wi-Fi connection, allowing real-time monitoring and control. By leveraging the Internet of Things (IoT) technology with an auto-tuned PID Control algorithm. The developed system also enables efficient water usage during crop irrigation by providing accurate information on soil moisture levels. Also, the IoT-based Smart Greenhouse Monitoring System leads to labour savings and enhanced time management. Through automated monitoring and control, farmers can optimize their workflow and reduce manual interventions, resulting in increased efficiency and productivity. Overall, this study aims to integrate IoT technology into greenhouse operations, contributing to the sustainability, productivity, and economic viability of greenhouse agriculture. A comparative analysis is also carried out between ATmega-based microcontroller Vs PID algorithm implemented Arduino microcontroller. By providing real-time monitoring capabilities, the IoT-based Smart Greenhouse Monitoring System offers a promising solution to optimize resource usage, enhance crop yield, and foster economic growth in the agricultural sector.

**Keywords:** Soil moisture, PID controller, IoT Technology, Agriculture, Greenhouse

**1. INTRODUCTION**

Greenhouse cultivation has become an integral part of the agricultural sector, playing a crucial role in ensuring food security and promoting sustainable farming practices, particularly in densely populated regions like Asia. However, the agricultural industry faces numerous challenges such as water scarcity, food shortages, and the need for precise environmental control within greenhouses. To address these challenges, the integration of Internet of Things (IoT) technology offers a promising solution Hikma et al., [1]. By

## FACULTY PAPER PUBLICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

SKCT DIGEST

## PUBLICATION

Dr K Muthulakshmi, Professor, published a research article on "Face Recognition Smart Attendance System using Convolutional Neural Networks" in the journal of *Przegląd Elektrotechniczny*, indexed in ESCI in May 2024.

1. M.A.P.Manimekalai<sup>1</sup>, 2. Esther Daniel<sup>1</sup>, 3.T.Mary Neebha<sup>1</sup>, 4. K.Muthulakshmi<sup>2</sup>, 5. Ryan Paul Jess.C<sup>1</sup>, 6.Raguram.S<sup>1</sup>

Karunya Institute of Technology and Sciences (1), Sri Krishna College of Technology (2)  
ORCID: 1.0000-0001-8854-4576; 2.0000-0003-1997-094X; 3.0000-0002-0981-3089

doi:10.15199/48.2024.05.46

### Face Recognition Smart Attendance System using Convolutional Neural Networks

**Abstract.** An automated face attendance system using Convolutional Neural Networks (CNN) is a promising technology for improving attendance management in educational institutions, workplaces, and other organizations. This system uses a deep learning model based on CNN to detect and recognize faces from images captured by a camera. The captured image is pre-processed by applying various techniques such as face detection, extraction, and normalization to extract facial features. The extracted features are then stored in a real-time database and used to train the CNN model to recognize the faces of individuals accurately. The system can efficiently handle various lighting conditions and pose variations to recognize individuals. The proposed method provides a fast and accurate approach to attendance management that can significantly reduce manual efforts and errors.

**Streszczenie.** Zautomatyzowany system obecności na zajęciach wykorzystujący konwolucyjne sieci neuronowe (CNN) to obiecująca technologia upraszczająca zarządzanie frekwencją w instytucjach edukacyjnych, miejscach pracy i innych organizacjach. System ten wykorzystuje model głębokiego uczenia się oparty na CNN do wykrywania i rozpoznawania twarzy na obrazach zarejestrowanych przez kamerę. Przechwycony obraz jest wstępnie przetwarzany przy użyciu różnych technik, takich jak wykrywanie twarzy, ekstrakcja i normalizacja w celu wyodrębnienia rysów twarzy. Wyodrębnione cechy są następnie przechowywane w bazie danych działającej w czasie rzeczywistym i wykorzystywane do szkolenia modelu CNN w zakresie dokładnego rozpoznawania twarzy poszczególnych osób. System może skutecznie obsługiwać różne warunki oświetlenia i stawać się niezależny od pozycji w celu rozpoznawania osób. Proponowana metoda zapewnienia szybkiej i dokładnej obecności do zarządzania frekwencją, która może znacznie zmniejszyć wysiłki i błędy wykonywane ręcznie. (Inteligentny system rozpoznawania twarzy wykorzystujący konwolucyjne sieci neuronowe)

**Keywords:** Attendance, CNN (Convolutional Neural Networks), face images, extraction, IoT (Internet of Things).  
**Słowa kluczowe:** frekwencja, CNN (konwolucyjne sieci neuronowe), obrazy twarzy, ekstrakcja, IoT (internet rzeczy).

#### Introduction

The traditional attendance management methods involve manual processes that can be time-consuming and error-prone. With the advancement in computer vision and deep learning techniques, an automated face attendance system using Convolutional Neural Networks (CNN) has been developed, which has the potential to revolutionize attendance management in various organizations. This work captures images and uses a CNN-based deep learning model to recognize their faces. Moreover, the attendance data is stored in a real-time database, which can be accessed and managed remotely. We will also propose an additional method where the organizer can view the status of the presenters. The proposed work is fast, reliable, and cost-effective and can significantly reduce the workload of attendance management. This paper discusses implementing an automated face attendance system using CNN with a real-time database and highlights its advantages over traditional attendance management methods. The main purpose of this work is to produce an automated system where the users can able to provide attendance without any manpower with ease in real-time.

#### Literature Review

The implementation of Automatic attendance can be achieved by storing a person's ID and name and using a camera to take 60 images of their face[1]. A deep learning-based attendance system [2] that generates the list of students present using a group photo of a class was developed. The system employs a one-shot learning method for face recognition, ensuring robust and efficiency, even when dealing with new users with only a single image provided. An enhanced attendance system that uses Python and OpenCV to capture and detect the faces of students[3] was developed. The facial recognition algorithm extracts features like the forehead, mouth, eyes, nose, chin, and jaws to generate a facial signature. This [4] study proposes using a QR code reader system to automatically record users' faces. It can be modified to include a

database to store and retrieve information from the QR code image. The proposed end-to-end face identification and attendance system that utilizes Convolutional Neural Networks (CNN)[5] operates on the CCTV footage or video of the class to mark attendance in a single shot. The proposed system is robust against challenges like occlusion, orientation, alignment, and luminescence of the classroom, and achieved a real-time accuracy of 96.02%, outperforming existing systems. A system uses a camera installed inside the classroom to capture photos, detect faces, and compare them with a database for attendance marking [6] is essential. Face detection and recognition are carried out using dlib[7], and the system compares the detected faces with a database of students' faces. This is an effective technique for managing attendance in the classroom. The system[8] uses algorithms to detect faces and recognizes registered students. It saves time and allows students to monitor their attendance status. To replace manual attendance with four steps such as database creation, face detection, recognition, and attendance updates [9] was developed to ease the burden of attendance marking by individual staff. Results are sent to faculty via email. The authors [10] stated this system ensures that people can only mark their attendance if they wear a mask, and an alert is given if they do not so the attendance can be monitored along with the check for mandatory rules imposed. However, a system that provides correct attendance without manpower, swiftly and with ease is crucial.

#### Proposed Smart Attendance Architecture

##### 1. Architecture

This proposed architecture consists of a smartphone with a working selfie camera and a server-side database for storing the images and manipulating the data that is fetched from the user. Fig.1 shows the system architecture which uses the FaceNet CNN model to extract faces from the images and convert them to vector embeddings to differentiate images.

## FACULTY PUBLICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## PUBLICATION

**Dr G Shanthi, Professor**, published an article on **“Threat Analysis and Security Measures for the Internet of Medical Things (IoMT): A Study”** in a scopus indexed book on **Computational Intelligence and Blockchain in Biomedical and Health Informatics** in May 2024.

(Edition: First Edition, First Published: 2024 , Imprint: CRC Press, Pages: 229-242).

Home > Computer Science > Artificial Intelligence > Computational Intelligence and Blockchain in Biomedical and Health Informatics > Threat Analysis and Security Measures for the Internet of Medical Things (IoMT): A Study

Chapter

### Threat Analysis and Security Measures for the Internet of Medical Things (IoMT): A Study

By *S. Velmurugan, G. Shanthi, L. Raja, D. Subitha*

Book [Computational Intelligence and Blockchain in Biomedical and Health Informatics](#)

Edition	1st Edition
First Published	2024
Imprint	CRC Press
Pages	14
eBook ISBN	9781003459347

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**ABSTRACT**

Remote healthcare management system becomes more popular to limit the patients travelling to healthcare facilities. For the better connection of patients and the healthcare facilitators, improving the access to specialist and clinicians to avoid high risk management. The age of Internet of things brought an ultrafast connectivity to communicate with a diverse range of medical devices and healthcare equipment. The advent of wearable devices and other medical diagnostic devices enables patients to check blood pressure, temperature, heart rate and have the acquired data sent to physicians for analysis. AI can also bring new capability in telemedicine to make it easier to track patient's history during telemedicine visits and dynamically adjust questions based on responses. Many existing technology involve the support of the physicians for proper connectivity with patients. Many threats are related to data security, interoperability, regulatory changes, standardization issues, and maintaining trust. The proposed method deals with accuracy and security measures related to various threats that occur in connecting various medical devices. This not only improves the accuracy and security but also allows for easy connectivity and data sharing of IoMT devices, leading to better outcomes for patients.

< Previous Chapter      Next Chapter >

## FACULTY PUBLICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATION

Dr S Ramya/AP attended a two-day FDP on **"Resource Management, Security & Architecting with Cloud"** organised by Kongu Engineering College, Erode during 03-04 May 2024.



## FACULTY PARTICIPATION



Mr Senthilnathan N, Mr Vishnu Rohit B, Mr Tamilselvan N and Mr Vimal C, Students of Second B.E> ECE, participated in **"HackFest 2024 - A Regional Level Hackathon"** in the domain **"Climate change"** at KPR Institute of Engineering and Technology, Coimbatore.

## STUDENTS PARTICIPATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATION

Dr K Shanthi/ASP received a Certificate of Appreciation for translating the files of the course on **“Electrical Machines - II”** offered by IIT KGP in Tamil language.



## FACULTY CERTIFICATION



### Education for Sustainable Development



### Elite & Gold:

Dr S Nithya Devi, Assistant Professor.

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATIONS



### Education for Sustainable Development



#### Elite & Silver:

Dr P Divya, Assistant Professor.

### Introduction to Internet of Things

#### Elite & Gold:

Mr Cilambarasan V, Student of Final B.E. ECE.

#### Elite & Silver:

Ms Abinaya Gunasekaran V, Student of Final B.E. ECE.

Mr Adithya S S, Student of Final B.E. ECE.

Ms Amirtha Varshini S, Student of Final B.E. ECE.

Mr ArunKrishna E S, Student of Final B.E. ECE.

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATIONS



### Computer Networks and Internet Protocol

#### Elite & Silver:

Ms Afrin Banu K, Final Year ECE

Ms Janani RS, Final Year ECE

Ms Janani S, Final Year ECE

### Design Thinking – A Premier

**Elite**  
**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**HARINI S**  
for successfully completing the course  
**Design Thinking - A Primer**

with a consolidated score of **77** %

Online Assignments	18.33/25	Proctored Exam	58.5/75
--------------------	----------	----------------	---------

Total number of candidates certified in this course: 3949

*Devendra Jalihal*  
Prof. Devendra Jalihal  
Chairperson  
Centre for Outreach and Digital Education, IITM

Jan-Feb 2024  
(4 week course)

*Andrew Thangaraj*  
Prof. Andrew Thangaraj  
NPTEL, Coordinator  
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24MG15S653504879 To verify the certificate No. of credits recommended: 1 or 2



# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATION

Ms Subhadharani M completed courses on **“Getting Started with Cloud Acquisition,” “AWS Billing and Cost Management”** and **“AWS Foundation: Getting Started with the AWS Cloud Essentials”** offered by aws training and certification on 10 May 2024.



## STUDENT CERTIFICATIONS

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATIONS

Dr M Thillai Rani/ASP completed online courses on “Foundations of Cybersecurity” & “Programming for Everybody” offered through Coursera.



## FACULTY CERTIFICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATIONS

Dr N Manikanda Prabu/AP completed online courses on "Python Data Structures" & "Programming for Everybody" offered through Coursera.



## FACULTY CERTIFICATION

# ELECTRONICS AND COMMUNICATION ENGINEERING

## CERTIFICATION

**Dr S Ramya/AP** completed various courses through **Coursera** during the month of May 2024.



## FACULTY CERTIFICATIONS

# ELECTRONICS AND COMMUNICATION ENGINEERING

SKCT DIGEST

## PLACEMENT

**Ms R Roopa Thangam** and **Ms A Sandhya**, Students of Final B.E. ECE bagged Internship offers from **"Kone"** with a stipend of **Rs. 15,000/-** and **CTC of 4.5 LPA.**



**Ms R Roopa Thangam**



**Ms A Sandhya**

**Mr Ajay S**, Students of Final B.E. ECE, bagged Internship offers from **"Multicoreware"** with Internship stipend of **Rs. 15,000/-** and **CTC of 7.2 LPA.**

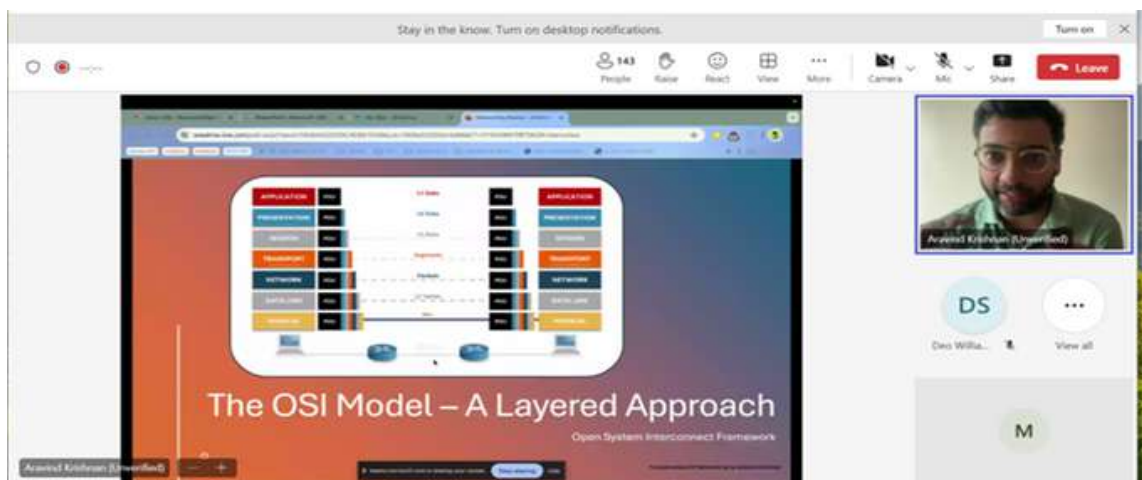


## PLACEMENT DETAILS

# ELECTRONICS AND COMMUNICATION ENGINEERING

## EVENT

The Department of Electronics and Communication Engineering in collaboration with IETE organised an Industry Expert Talk on "Unlocking the Mysteries of Transport and Application Layers" on 10 May 2024. Mr Aravind Krishnan, Physical Multi-Cloud Engineer, Carelon Global Health Solutions, Country Limerick, Ireland served as a Resource Person.

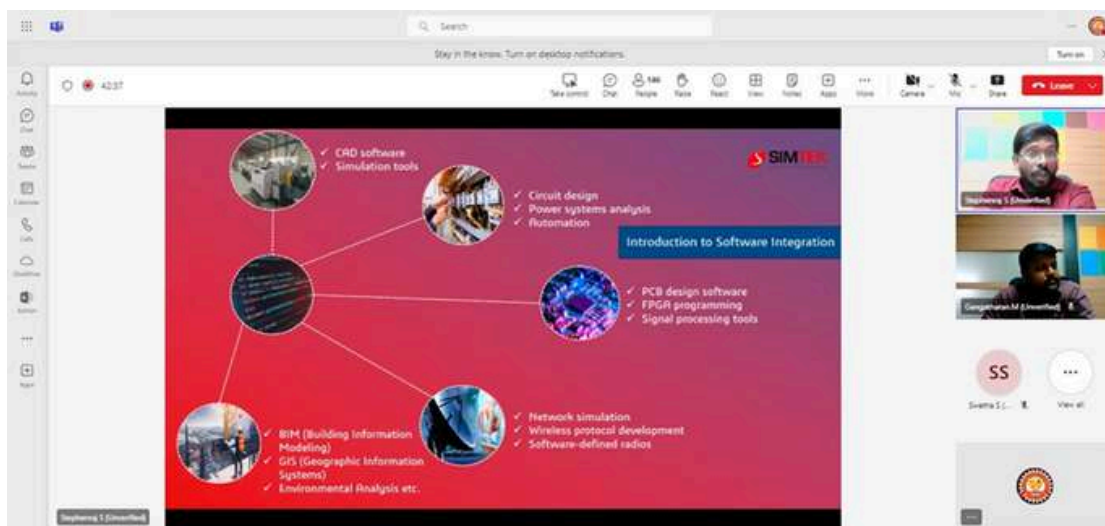
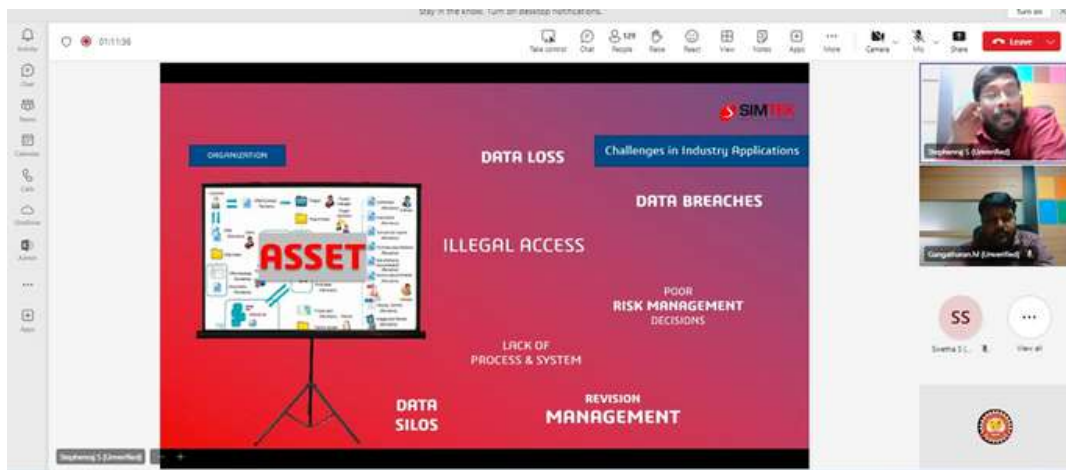


## EVENT ORGANISED

# ELECTRONICS AND COMMUNICATION ENGINEERING

## EVENT

The Department of Electronics and Communication Engineering organised an Industry Expert Talk on **“Software Advancement: Transitioning from Industry Applications to Modern Era Customization and Support”** on 10 May 2024 through online mode. Mr S Stephen Raj, Technical Manager, Sim Technologies Pvt. Ltd., Coimbatore acted as Resource Person.



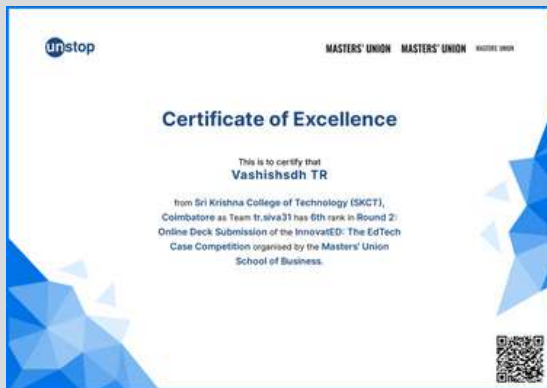
## EVENT ORGANISED

# ELECTRICAL AND ELECTRONICS ENGINEERING

Mr Vashishsdh T R, student II Year EEE department, has received a **three-month internship** from **Geak Minds, Chennai**



## STUDENT ACHIEVEMENT



Mr Vashishsdh T R, student II Year EEE department, has secured **sixth rank** in Round 2: Online Deck Submission of the **InnovatED: The EdTech Case Competition** organized by **Master's Union School of Business**.

## STUDENTS ACHIEVEMENT



# ELECTRICAL AND ELECTRONICS ENGINEERING

**Mr. Dyanesh S**, final year, Electrical and Electronics Engineering has been offered the esteemed position of **Product Solution Engineer** at **E3 Innovations, Bangalore.**



## STUDENT ACHIEVEMENT

**Mr Leninpugalhanthi P**, Assistant professor, department of Electrical and Electronics Engineering, has received a **patent grant** in the title **“Designing Helmet by attaching gadgets for enhancing the safety of rider and pillion rider”** from Indian Patent Office.



## FACULTY PUBLICATIONS

# ELECTRICAL AND ELECTRONICS ENGINEERING

**Mr.J.Dhanaselvam** AP/EEE department has **successfully defended** his **PhD VivaVoce** on 30 April 2024.



## FACULTY PARTICIPATION

**Dr Lijo Jacob Varghese and Dr Jaisiva S,** have published **an article** in the title **"Machine Learning Assisted Autonomous Vehicle in an IoT Environment"** in Proceedings of the Bulgarian Academy of Sciences, Volume 77, Issue 3, DOI: <https://doi.org/10.7546/CRABS.2024.03.10>, Scopus indexed.



## FACULTY PUBLICATIONS

# ELECTRICAL AND ELECTRONICS ENGINEERING

## CERTIFICATION

**Dr Jaisiva S, Dr Dilipkumar S and Dr Lijo Jacob Varghese**, Faculty, department of Electrical and Electronics Engineering, has passed NPTEL certification in the course **NBA Accreditation and Teaching Learning in Engineering**.



**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **JAISIVA S**  
for successfully completing the course  
**NBA Accreditation and Teaching-Learning in Engineering (NATE)**  
with a consolidated score of **69 %**

Online Assignments	18.75/25	Proctored Exam	50.63/75
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Total number of candidates certified in this course: 1337

Jan-Apr 2024 (12 week course)

Indian Institute of Science Bangalore

Roll No: NPTEL24GE07S1153800027



**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **DILIP KUMAR S**  
for successfully completing the course  
**NBA Accreditation and Teaching-Learning in Engineering (NATE)**  
with a consolidated score of **72 %**

Online Assignments	21.1/25	Proctored Exam	50.63/75
--------------------	---------	----------------	----------

Total number of candidates certified in this course: 1337

Jan-Apr 2024 (12 week course)

Indian Institute of Science Bangalore

Roll No: NPTEL24GE07S1153801767



**Elite NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to **LJO JACOB VARGHESE**  
for successfully completing the course  
**NBA Accreditation and Teaching-Learning in Engineering (NATE)**  
with a consolidated score of **75 %**

Online Assignments	18.1/25	Proctored Exam	56.63/75
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Total number of candidates certified in this course: 1337

Jan-Apr 2024 (12 week course)

Indian Institute of Science Bangalore

Roll No: NPTEL24GE07S1253800974

## FACULTY ONLINE CERTIFICATION

# ELECTRICAL AND ELECTRONICS ENGINEERING

## CERTIFICATION

**Mr Harish R**, Faculty, department of Electrical and Electronics Engineering, has passed NPTEL certification in the course Deep Learning.



### NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

**HARISH R**

for successfully completing the course

**Deep Learning**

with a consolidated score of **44** %

Online Assignments	13.75/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **1317**

**Jan-Apr 2024**

(12 week course)

**Prof. Haimanti Banerji**  
Coordinator, NPTEL  
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL24EE04S1053805042

To verify the certificate



No. of credits recommended: 3 or 4

## FACULTY ONLINE CERTIFICATION

# ELECTRICAL AND ELECTRONICS ENGINEERING

The Department of Electrical and Electronics in association with IIC organised a **Guest Lecture** on **"Intellectual property framework in the Constitution of India :Innovating governance"** to the Students of II EEE and ECE , facilitated by **Mr A Nirmal Kumar, Advocate ,Civil & Criminal Practitioner, Pollachi** on 02 May 2024.

**Sri Krishna College of Technology**  
An Autonomous Institution | Affiliated to Anna University  
KOVAIPODUR CAMPUS, COMBATOR - 641 042.

Institutes Innovation Council in association with  
Department of Electrical and Electronics Engineering  
Organises

**A GUEST LECTURE**  
on

**Intellectual Property Framework In the Constitution of India: Innovating Governance**

**Resource Person**  
Mr. A. Nirmalkumar,  
Advocate, Civil & Criminal Practitioner,  
Pollachi.

02-May-2024 | 10:00 a.m. to 01:00 p.m. | ES Seminar Hall

Convenor: Dr. Ujo Jacob Varghese, HoDEEE  
Coordinator: Ms. V. Manimegalai, APEEE  
Coordinator: Mr. P. Leninpugalhanthi, APEEE

All are Cordially Invited



EVENT ORGANIZED

# ELECTRICAL AND ELECTRONICS ENGINEERING

1.The Department of Electrical and Electronics in association with IIC organised a **Guest Lecture** on "**Process Design and Development in Electric Vehicles**" facilitated by **Mr A Saravanan, Lead Power System Engineer, ABB, Bangalore** on 03 May 2024.

The poster features logos for Sri Krishna College of Technology, Sustainable Development Goals, NAAC, NBA, and NIRF. It states the event is organized by the Institutes Innovation Council & Department of Electrical and Electronics Engineering. The title is 'A GUEST LECTURE on Process Design and Development in Electric Vehicles'. The resource person is Mr. A. Saravanan, Lead Power System Engineer at ABB, Bangalore. The event is on 03-May-2024 from 10:30 a.m. to 12:30 p.m. in ES Seminar Hall. Convenor: Dr. Lijo Jacob Varghese (H/D/EEE), Coordinator: M. P. Lenispugaltharhi (A/PI/EE), and another Coordinator: Dr. S. Dilipkumar (A/PI/EE). It concludes with 'All are Cordially Invited' and social media icons for Facebook, Instagram, LinkedIn, X, and YouTube.



EVENT ORGANIZED

# INFORMATION TECHNOLOGY

## ACHIEVEMENTS

The Students of II B.Tech. IT secured the **Topper Position** in a course on **"Programming in Java"** offered through NPTEL in April 2024.



**Mr JAISURYAH K P**  
II IT A



**Mr DHAYANANTH K M**  
II IT A



**Mr MAHUDESH M**  
II IT B



**Mr KESAV KUMAR J**  
II IT B



**Mr RAM SUNDAR R**  
II IT B

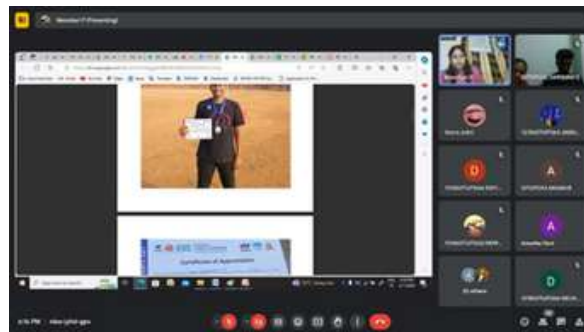
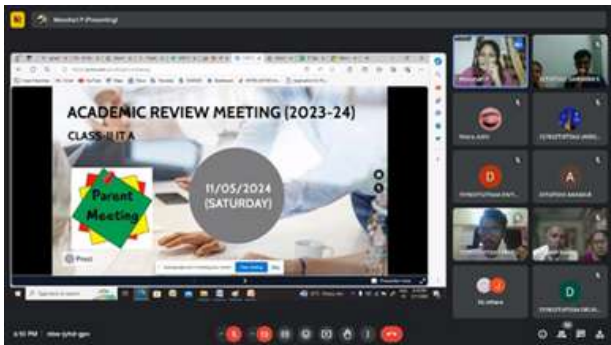
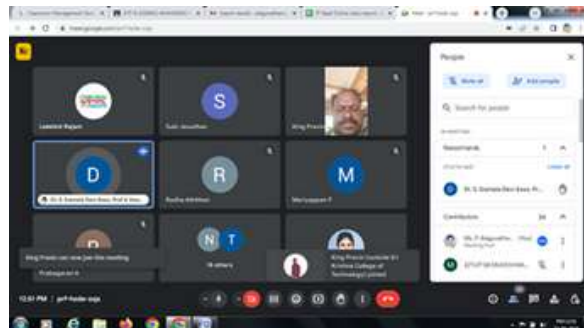
## STUDENTS ACHIEVEMENT

# INFORMATION TECHNOLOGY

## REVIEW MEETING

**The Academic Review Meeting** for the Students of II & III B.Tech. IT was conducted on 11 May 2024 through online mode. More than 130 parents participated in the meeting. The following points were discussed in the meeting:

1. Overview of Academic Performance
2. Discussion of Challenges and Opportunities
3. Strategies for Improvement
4. Attendance
5. Placement activities
6. Outside Participation
7. Internship courses
8. AICTE activity points
9. Discipline
10. Dress code



## ACADEMIC REVIEW MEETING

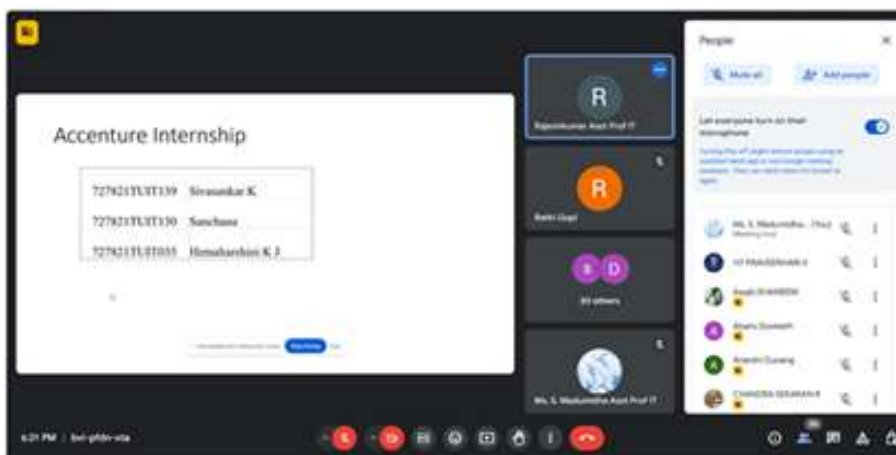
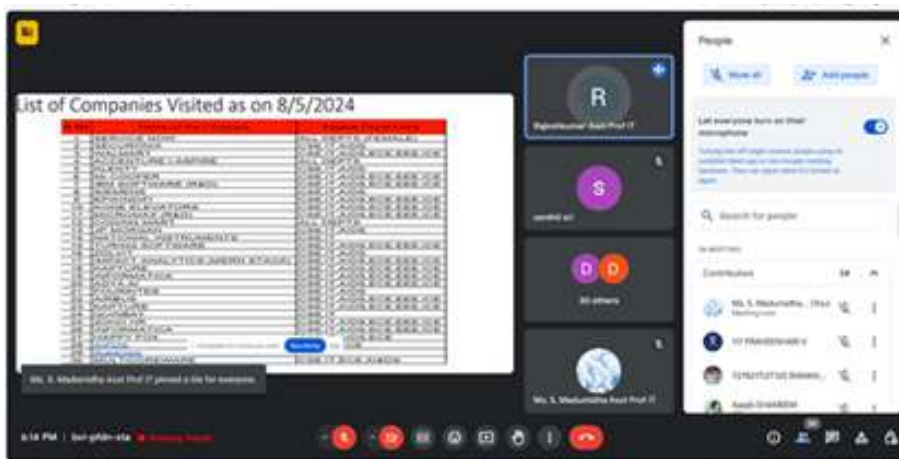


# INFORMATION TECHNOLOGY

## REVIEW MEETING

The Academic Review Meeting for III IT students was conducted on 11.05.2024 in online mode. More than 130 parents participated in the meeting. The following points were discussed in the meeting.

1. Overview of Academic Performance
2. Discussion of Challenges and Opportunities
3. Placement activities
4. Placement test performance
5. Attendance
6. Discipline
7. Dress code.



## ACADEMIC REVIEW MEETING

# INFORMATION TECHNOLOGY

## PUBLICATION

**Mr K Suresh Kumar/AP** published book chapters in the Springer Book on **“Spatiotemporal Data Analytics and Modelling Techniques and Modelling.”**

<b>5</b>	<b>Multimodal Spatial-Temporal Prediction and Classification Using Deep Learning</b> .....	<b>89</b>
	K. Suresh Kumar, K. Abirami, C. Helen Sulochana, T. Ananth Kumar, Sunday A. Ajagbe, and C. Morris	
<b>6</b>	<b>Spatiotemporal Object Detection and Activity Recognition</b> .....	<b>115</b>
	Vimal Kumar, Shobhit Jain, and David Lillis	
<b>Part II Applications of Spatiotemporal Data Analytics</b>		
<b>7</b>	<b>Spatio-temporal Data Analytics for e-Waste Management System Using Hybrid Deep Belief Networks</b> .....	<b>135</b>
	K. Suresh Kumar, C. Helen Sulochana, D. Jessintha, T. Ananth Kumar, Mehdi Gheisari, and Christo Ananth	

## FACULTY PUBLICATION

**Mr K Suresh Kumar/AP** published a research article on **“Sentiment Analysis of Short Texts Using SVMs and VSMs-Based Multiclass Semantic Classification”** in the **Applied Artificial Intelligence**, an International Journal.



## FACULTY PUBLICATION

# INFORMATION TECHNOLOGY

## ACHIEVEMENT

**Ms P Manohari P/AP** delivered a Guest Lecture in a workshop on **“Intellectual Property Rights (IPRs)”** organised by Sree Sakthi Engineering College, Karamadai. The workshop covered key topics including:

- Understanding the different categories of Intellectual Property (IP)
- The importance of IP protection
- Developing an IP strategy
- The patenting process
- Trademark and copyright protection
- Trade secret protection

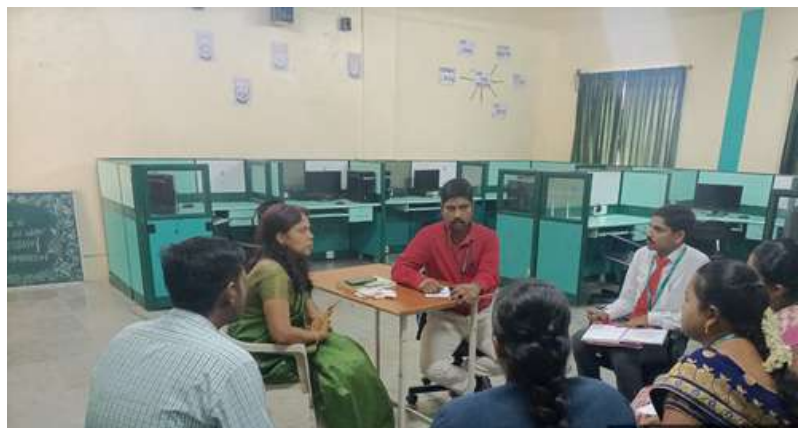


## FACULTY ACHIEVEMENT

# INFORMATION TECHNOLOGY

## REVIEW MEETING

Ms P Manohari/AP conducted the **Quarterly Progress Review Meeting for Quarter 3** at Sree Sakthi Engineering College, Karamadai on 25 May 2024.



## REVIEW MEETING

# INFORMATION TECHNOLOGY

## CERTIFICATIONS



### Cloud Computing

#### Elite & Silver:

Ms Vishmaya, II B.Tech. IT

Ms Sharon Reshma Arulprakash, II B.Tech. IT

Ms Sangamithra, II B.Tech. IT

### Programming in Java

#### Elite:

Mr Lalith Kumar, II B.Tech. IT

Mr Jeeva, II B.Tech. IT

#### Completed

Ms Kiruthikassre, II B.Tech. IT

Mr Pagalavan M, II B.Tech. IT

Ms Kaviya A, II B.Tech. IT

Mr Ritam Bhukta B, II B.Tech. IT

Ms Jenisha J, II B.Tech. IT


Ms Karunya V, II B.Tech. IT


# INFORMATION TECHNOLOGY

## CERTIFICATION

**Ms Nivedhitha J**, Student of II B.Tech. IT, completed a course on **“Python for Data Science”** during January–February 2024.



 **NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)



This certificate is awarded to  
**NIVEDHITHA J**  
for successfully completing the course  
**Python for Data Science**  
with a consolidated score of **56** %

Online Assignments	25/25	Proctored Exam	30.62/75
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Total number of candidates certified in this course: **11953**


  
**Prof. Devendra Jalihal**  
Chairperson,  
Centre for Outreach and Digital Education, IITM

**Jan-Feb 2024**  
(4 week course)

  
**Prof. Andrew Thangaraj**  
NPTEL, Coordinator  
IIT Madras

 Indian Institute of Technology Madras

  
FREE ONLINE EDUCATION  
swayam  
— Before never, since never —

Roll No: NPTEL24CS54S653504438      To verify the certificate       No. of credits recommended: 1 or 2

# MECHANICAL

## ACHIEVEMENT

A product patent filed by the Department of Mechanical Engineering with institution name as applicant on **“Designing Helmet by Attaching Gadgets for Enhancing Safety for Rider and Pillion Rider”** has been granted.

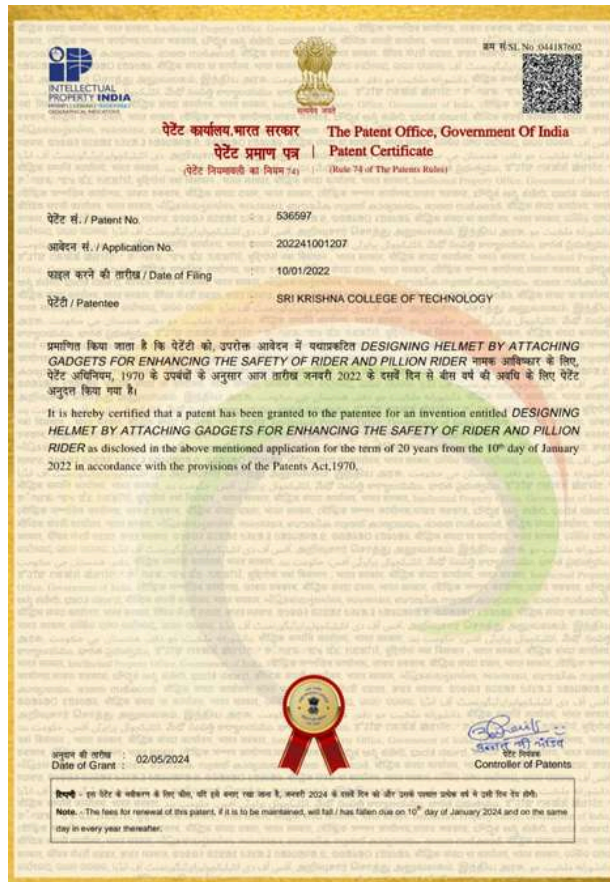
Filed by :

### Department of Mechanical Engineering

1. Mr K SenthilKumar/AP
2. Mr K Mohan/AP

### Department of Electrical and Electronics Engineering

1. Mr P Leninpugalhanthi/AP



## FACULTY ACHIEVEMENT

# MECHANICAL

## ACHIEVEMENT

**Dr R B Jeen Robert, Professor**, published an article in the Journal of the **Chinese Institute of Engineers (Taylor & Francis)**, SCIE/WoS Indexed (Q2), with an Impact Factor of **1.1**.

JOURNAL OF THE CHINESE INSTITUTE OF ENGINEERS  
<https://doi.org/10.1080/02533839.2024.2346496>



Taylor & Francis  
Taylor & Francis Group

Check for updates

### Cutting-edge tool wear monitoring in AISI4140 steel hard turning using least square-support vector machine

Rajeev D<sup>a</sup>, AjithaPriyadarsini S<sup>b</sup>, Jeen Robert RB<sup>c</sup> and Senthil Maharaj Kennedy<sup>d</sup>

<sup>a</sup>Department of Mechanical Engineering, MarEphraem College of Engineering and Technology, Marthandam, India; <sup>b</sup>Department of Electrical and Electronics Engineering, Narayanaguru College of Engineering and Technology, Manjalumoodu, India; <sup>c</sup>Department of Mechanical Engineering, Sri Krishna College of Technology, Coimbatore, India; <sup>d</sup>Department of Mechanical Engineering, AAA College of Engineering and Technology, Sivakasi, India

#### ABSTRACT

This research addresses the critical challenge of tool wear monitoring in AISI4140 steel hard turning through the innovative application of a Least Square-Support Vector Machine (LS-SVM) prediction model. While acknowledging the growing significance of hard turning over conventional grinding techniques, the background also recognizes the challenges posed by accelerated tool wear and decreased productivity. The main goal is to create a reliable tool wear prediction model that is tailored to harsh turning circumstances. Material selection, cutting force measurement, acceleration measurement, and accurate tool wear measurement are all included in the experimental procedures. Using time and frequency domain analyses, the research methodically examines how cutting force and acceleration affect tool wear. For feature selection, non-linear regression is used to determine which parameters have the greatest influence on wear. A comprehensive training and validation procedure, structural clarification, and a detailed mathematical foundation are used in the development of the LS-SVM-based tool wear prediction model. The presentation of the findings and related discussions explores the impact of acceleration and cutting force on wear. The LS-SVM model's successful application for precise tool wear prediction in AISI4140 steel hard turning is highlighted in the conclusions, demonstrating the model's potential to improve tool lifespan and manufacturing efficiency.

#### ARTICLE HISTORY

Received 31 August 2023  
Accepted 22 March 2024

#### CO-EDITOR-IN-CHIEF

Hsiao, Shu-San

#### ASSOCIATE EDITOR

Liu, De-Shin

#### KEYWORDS

Hard turning; least square-support vector machine; cutting force; acceleration; tool wear

#### 1. Introduction

Hard turning is carried out under fine depth of cut and small feed of hard steels having hardness more than 45HRC (Elsadek et al. 2020). It is seen as an alternative for traditional grinding in finishing operation and has emerged as a new technology in machining with time and cost efficiency (Aouici et al. 2012; Das, Dhupal, and Kumar 2015). The advantages over traditional grinding include better material removal rate, less work cycle time, absence of harmful cutting fluids, both hard and soft turning can be done in the same machine etc (Asiltürk and Akkuş 2011; Aslan 2005). Expensive Cubic Boron Nitride (CBN) and ceramic tools are used for hard turning. Many experiments were conducted to prove the effectiveness of coated carbide tool in hard turning (Bartarya and Choudhury 2012; Suresh, Basavarajappa, and Samuel 2012). However, higher wear rate associated with hard turning is seen as one among the main problems influencing its application in industries. The economic viability of hard turning is affected by the equipment down time, due to tool change and poor surface quality associated with tool wear (Duc et al. 2020; Khan et al. 2022). It is estimated that the tool failure contributes to 20% of down time and the budget for tool replacements amounts to 3–12% of total development cost (Rizal et al. 2013). Therefore, progress of cutting tool right from the

initial stage of cutting process is required to prevent such a failure. Recently many authors have carried out researches in tool condition monitoring (TCM) process (Chen et al. 2017; Kelmers et al. 2022; Kumar and Shelare 2019; Singh et al. 2019). TCM may include direct and indirect methods. Direct methods, even though accurate are not suited for online implementation, while the indirect methods using sensor technology are widely used. The step involved in the TCM using indirect methods are feature extraction, feature selection and model development for the wear (Dinakaran, Sampathkumar, and Sivashanmugam 2009). The sensor signals widely used for feature extraction are vibration, current, cutting force, power, torque, and acoustic emission. Cutting force sensed by dynamometer is regarded as one of the vital factors for predicting tool wear (Pal et al. 2011). The tool wear causes increase in friction, which in turn increases the static and dynamic components of cutting force. Another prominent feature used in TCM is the amplitude of vibration signal. Many authors have used vibration signal for wear prediction (Dimla and Lister 2000a; Siddhpura and Paurobally 2012). It is measured by accelerometer. The information from one signal is inadequate to estimate the occurrence of tool wear, due to its complex phenomenon. It will be better to employ multiple sensors, as the abundance of information available is more

CONTACT Jeen Robert RB [jeenrobert.rb@skct.edu.in](mailto:jeenrobert.rb@skct.edu.in) Department of Mechanical Engineering, Sri Krishna College of Technology, Coimbatore, Tamilnadu 641042, India

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## FACULTY ACHIEVEMENT



# MECHANICAL

## CERTIFICATION



### Energy Resources, Economics and Sustainability

**Elite**

**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)




This certificate is awarded to  
**PAUL GREGORY F**  
for successfully completing the course

**Energy Resources, Economics, and Sustainability**

with a consolidated score of **97** %

Online Assignments	25/25	Proctored Exam	72/75
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Total number of candidates certified in this course: 526

  
 Prof. Kaushik Ghosh,  
 Professor (Chemistry),  
 Coordinator CEC

Feb-Apr 2024  
 (8 week course)

  
 Prof. Ranjana Pathania,  
 Professor (ISE),  
 Coordinator (NPTEL)



Indian Institute of Technology Roorkee



Roll No: NPTEL24HS77S353800223
To verify the certificate 
No. of credits recommended: 2 or 3

### Elite Gold and Topper in 5%:

Dr F Paul Gregory/AP

### Elite Silver:

Dr S Arivazhagan/AP

Mr K Senthil Kumar/AP

## FACULTY CERTIFICATION

# MECHANICAL

## CERTIFICATION



**Dr R B Jeen Robert, Professor,** completed NPTEL online Certification Course on **“Manufacturing Process Technology I & II”** with **60% and Elite.**



Elite

## NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

**JEEN ROBERT R B**

for successfully completing the course

**Manufacturing Process Technology - I & II**

with a consolidated score of **60 %**

Online Assignments	19.38/25	Proctored Exam	40.73/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: 666

**Prof. B. V. Ratish Kumar**  
Chairman, Centre for Continuing Education  
IIT Kanpur

Jan-Apr 2024

(12 week course)

**Prof. Satyaki Roy**  
NPTEL Coordinator  
IIT Kanpur



Indian Institute of Technology Kanpur



Roll No: NPTEL24ME48S1062800344

To verify the certificate



No. of credits recommended: 3 or 4

## FACULTY CERTIFICATION

# MECHANICAL

## CERTIFICATIONS

**Mr Viswa M**, Student of II B.E. Mechanical Engineering, completed the NPTEL online certification course on **“Advanced Machining Processes”** with **46%**.



## STUDENT CERTIFICATION

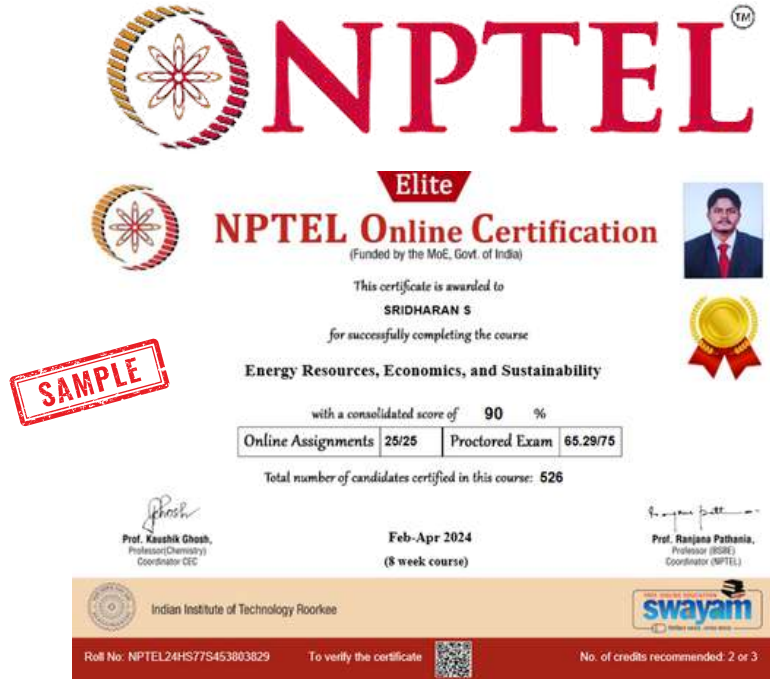
**Mr Dhesihan A**, Student of II B.E. Mechanical Engineering, completed the NPTEL online certification course on **“Advanced Machining Processes”** with **41%**.



## STUDENT CERTIFICATION

# MECHANICAL

## CERTIFICATIONS



## Energy Resources, Economics and Sustainability

### Elite Gold:

Mr Sridharan S

### Elite Silver:

Mr Vishal Kumar S

Mr Yuvraj B V

### Elite:

Mr Saikrishna G D

Mr Sanjay R

### Completed:

Mr Aravind Akash A

Ms Thulasi V

## STUDENTS CERTIFICATION

# MECHANICAL

## PARTICIPATIONS

**Mr Surya Prasath V** and **Mr Infant Jevin S**, Students of Mechanical Engineering, participated in a Technical Quiz at KGISL Institute of Technology, Coimbatore and **Mr Infant Jevin S**, secured the **First Place** in online quiz event.



## STUDENTS PARTICIPATION

## EVENT

The Department of Mechanical Engineering organised an Expert Talk on **“Innovation and Advancement in Green Energy.”** **Dr F Paul Gregory/AP** served as the Resource Person.

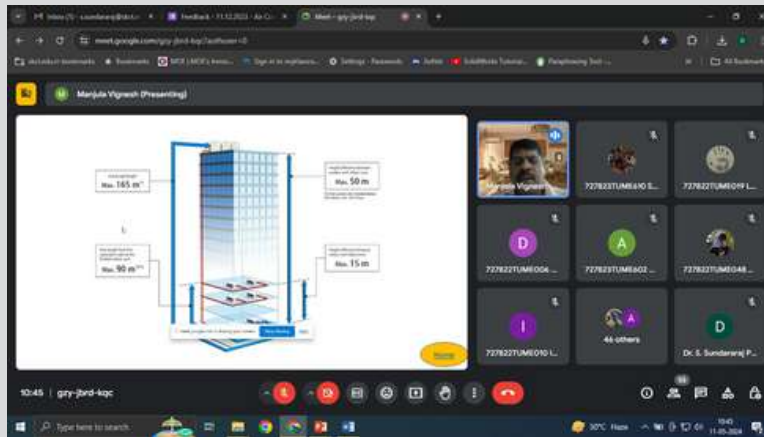


## EVENT ORGANISED

# MECHANICAL

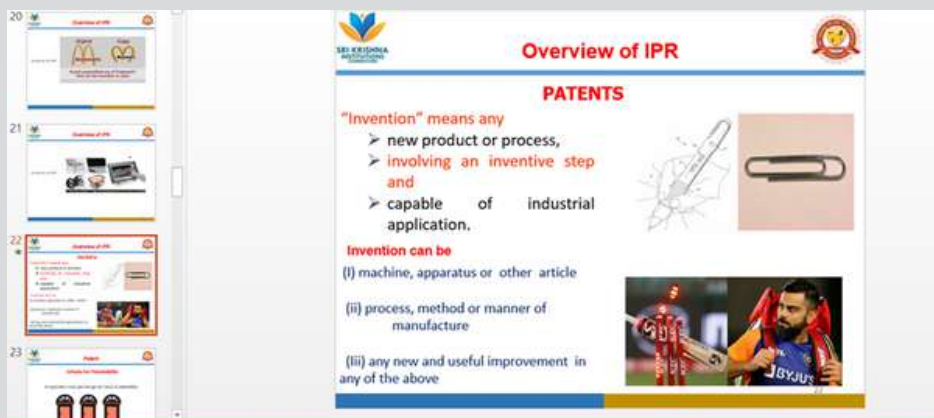
## EVENTS

The SKCT ISHRAE Student Chapter organised an Expert Talk on **“Basics of Air Conditioning and VRF Technology.”** Mr. Vignesh Senapathy, Manager, Mitsubishi Electric India Pvt. Ltd. Coimbatore, served as the Resource Person.



## EVENT ORGANISED

The Department of Mechanical Engineering with IIC organised an Expert Talk on **“The Role of Intellectual Property Rights in Frontiers of Research and Development.”** Dr S Sundararaj, IIC Ambassador, Professor, served as the Resource Person.



## EVENT ORGANISED

# MECHANICAL

## EVENT

**Dr N Mohanraj/ASP & Dr T Nithyanandhan/AP**, visited Heron Technology, Coimbatore.



## INDUSTRY VISIT

**SRI KRISHNA COLLEGE OF TECHNOLOGY**

Faculty Name & Department: Mr. K. Mohan & Mechanical Engineering

Supervisor Name & Affiliation: Dr. M. Mohanraj & Anna University

DC Members Name & Affiliation: Dr. S. Sundarajan & Anna University | Dr. Brucey Solomon

Year of Ph.D Registration/Start: 2023 | Tentative year of Completion: 2025

Broad Area of Research: Thermal | Solar

Thesis Title: STUDIES ON PERFORMANCE ENHANCEMENT OF SOLAR THERMAL DESALINATION SYSTEMS

Papers Published in the research area (SKCT Affiliation)	Scopus Indexed Journals - 4 Conferences (Indexed) - 1 Book Chapters - 1 Patents Published - 5	Non-Indexed - Nil Granted - 2
Papers Published in the research area (Other Affiliation)	Scopus Indexed Journals - Nil Conferences (Indexed) - Nil Book Chapters - Nil Patents Published - Nil	Non-Indexed - Nil Granted - Nil

Mr. K. Mohan is presenting

DEAN | Mr. K... | Mr. ...

You | Mr. K... | Mr. N...

The **Research Review Meeting** was organised for Ph.D pursuing Members of Faculty.

## REVIEW MEETING

# MECHANICAL

## EVENT

The Department of Mechanical Engineering organised a seminar on **“Pioneering Progress: Innovation in Smart foundries Shaping the Future.”** Mr **P Sureshkumar**, Chief Executive Officer ANGNA Inc., Coimbatore, served as the Resource Person.



## EVENT ORGANISED

Mr **Surendhar A**, Mr **Srihari S**, Mr **Sai Krishna G D**, Mr **Naveen Muthukrishnan R**, Mr **Lokeesh B** and Mr **Deelipraj D**, Students of Second B.E. Mechanical Engineering, attended a technical workshop on **“MASTER CAM with CNC”** at Pump Technovation India Pvt. Ltd., Coimbatore.



## STUDENTS PARTICIPATION



# MECHANICAL

## EVENT

The Department of Mechanical Engineering organised a Guest lecture on “Applications of GD&T in Production and Additive Manufacturing” Mr R Santhosh Kumar, Head-Techno commercial, My skills Academy, Coimbatore, served as the Resource Person.



## EVENT ORGANISED

# SCHOOL OF MANAGEMENT

## PLACEMENT

The Students of the Batch 2022-2024 bagged the placement offer from **City Union Bank** for the position of **Relationship Manager II Grade** with the CTC of **504000**.



**Mr Sri Harish K**



**Mr Aswin D**



**Mr Simrith Kamal**



**Mr Rishi Ajithesh R**



**Mr Rahulraja R**

**Mr Mohamed Areez**, Student of the Batch 2022-2024, bagged the placement offer from **M/s Luker Electric Technologies** for the position of **Sales Officer** with CTC of **4LPA**.



## PLACEMENT DETAILS

# SCHOOL OF MANAGEMENT

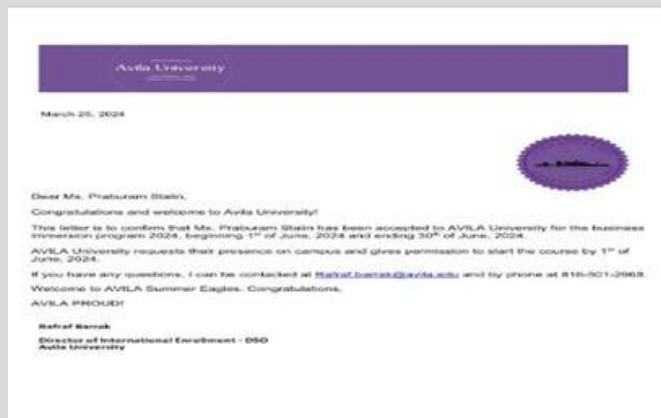
## ACHIEVEMENT

**Ms Tharshini, Student of I MBA**, received an award sponsored by Madurai Kamaraj University and Muvaar Tamil Sangam and Tamil Cultural Club. She received this for her excellence in participating various Tamil debate programme for the past 4 years and promoting Tamil language spirits in various districts . She received this award from the hand of Lt. Dr P Karpagavalli Udumalai in name of her excellence in police department and records, also she was invited as a Chief Guest for this award programme. Main reason for giving this award was for "Her excellence in participating Tamil debate and promoting Tamil language towards various places."



## STUDENT ACHIEVEMENT

**Mr Prabhu Ram, Student of I MBA**, bagged the opportunity to participate in the Business Immersion Programme at Avila University, USA.



## STUDENT ACHIEVEMENT

# SCHOOL OF MANAGEMENT

## CERTIFICATION



### AI in Marketing

#### ELITE

SANTHANALAKSHMI G  
KEERTHI SURESH  
DHARANI R  
RAKSHITH K  
SANJITH. D  
VARSHINI S  
ABHINANDANA B  
ARUN KUMAR M  
KAVIN KUMAR  
NARAYANAN R  
NARTHIKA R  
RAJKANESVAR  
SAIPRAKASH T  
SHOBICA  
B SUBASH  
SUBIKSHA L  
VARUNITHA B  
TAMILSELVAN R

### COMPLETED

BALAJI AV  
KAVYA L  
KISHOR KUMAR A  
RISHI AJITHESH R  
SANTHIYA.S  
SRI HARISH K  
VARSHINI S  
AJEETH KUMAR TJ  
AJITH C  
AKSHAYA B  
ALAGAMMAI C  
A ARUN  
BARATH R R  
BHARATHI  
GIDEON JONES  
HEMA RUSHMIYA K  
HEMA VARDHINI S S  
JAGADEESH M  
JABA NIBISHA P  
NAVIN M S  
RADHA A  
SANJAY KUMAR DN  
SANTHOSH  
SOUNDARIYA SELVI M  
SAHIL B PARIKH  
SUBIN N  
MUKILAN N  
PRANAV S  
SAFEELA NASREEN  
SANTHOSH R

## STUDENTS CERTIFICATION

# SCHOOL OF MANAGEMENT

## CERTIFICATION



### Investment Risk Management

#### COMPLETED

ARUN A I MBA  
ABHISHEK V I MBA  
AJAYKUMAR P I MBA  
AKSHAYA B I MBA  
DEEPAK V I MBA  
DINESH R I MBA  
GOPINATH M I MBA  
HARI KISHORE J I MBA  
HARISH M I MBA  
HEMA VARDHINI S S I MBA  
NIBISHA P I MBA  
JABEEN S I MBA  
KAVIN KUMAR U I MBA  
KEERTHANA V I MBA  
KISHORE S I MBA  
MAHESH P I MBA  
MANI SANKAR P I MBA  
MANIKANDAN M I MBA  
MOHAN KUMAR D I MBA  
NAVEEN KUMAR S I MBA  
NAVEENRA L I MBA  
BALAKRISHNAN S I MBA  
SANJAY KUMAR D N I MBA  
SANJAY A I MBA  
SANTHOSH R I MBA  
SANTHOSH S I MBA  
SRI MEENAKSHI P I MBA  
SUBASH B I MBA  
SUBIKSHA L I MBA  
SUJITHA M I MBA  
VARUNITHA B I MBA

### Introduction to AI by IBM

#### COMPLETED

AJEETH KUMAR T I MBA  
LIBARAN N I MBA  
SHAJITH AHAMED N I MBA  
THARUN KUMAAR S I MBA

### Business Analysis and Process management

#### COMPLETED

GOPINATH M I MBA  
MAHESH P I MBA  
NARTHIKA R I MBA  
NAVEERNA L I MBA  
SANTHOSH S I MBA  
SRI MEENAKSHI P I MBA  
SUBIKSHA L I MBA  
SUBIN N I MBA  
SANTHOSH R I MBA

### Foundations of Digital Marketing and E-commerce by Google

#### COMPLETED

JEEVANANTHU P I MBA  
KISHORE S I MBA  
SHAJITH AHAMED I MBA  
SUBIN N I MBA  
VARUN KUMAR P I MBA

## STUDENTS ONLINE CERTIFICATION

# SCHOOL OF MANAGEMENT

## CERTIFICATIONS



### Other Courses

RADHA A I MBA  
AJITH C I MBA  
AKASH J I MBA  
ALAGAMMAI C I MBA  
AMAL PAULY ALUKKAL I MBA  
ARCHANA M I MBA  
ARUN J I MBA  
RUBINI S I MBA  
JAGADEESH M I MBA  
JAROSH KARTHIK I MBA  
JAYASURIYA V I MBA  
KEERTHI S I MBA  
PRANAV S I MBA  
SAFEELA NASREEN I MBA  
SAI PRAKASH T I MBA  
SANJIL AHMED S I MBA  
SANTHANALAKSHMI G I MBA  
SARAN S I MBA  
SARANYA A I MBA  
SOUNDARIYA SELVI M I MBA  
SUJITHA M I MBA  
TAMILSELVAN R I MBA  
THARSHINI S I MBA

TOTAL OF  
**102**  
coursera  
CERTIFICATIONS

## STUDENTS CERTIFICATION

# SCHOOL OF MANAGEMENT

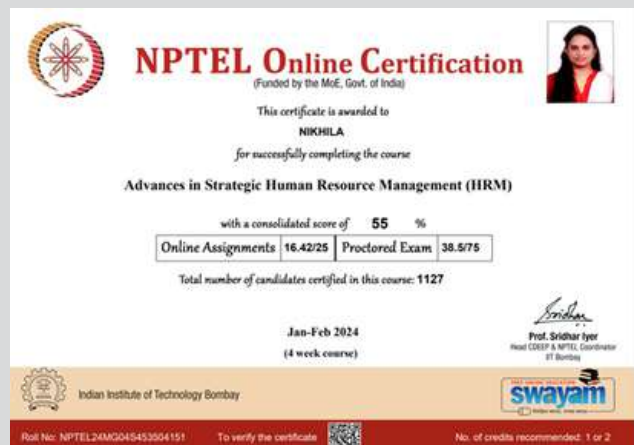
## CERTIFICATIONS

**Mr Harimuthiah S, Student of III MBA, completed the NPTEL course on "Investment Management."**



## STUDENT CERTIFICATION

**Ms Nikhila, Student of II MBA completed the NPTEL course on "Advances in Strategic Human Resource Management."**



## STUDENT CERTIFICATION

# SCHOOL OF MANAGEMENT

## CERTIFICATIONS

**Ms Praveena K, Student of II MBA, completed the NPTEL course on "Advances in strategic Human Resource Management."**



## STUDENT CERTIFICATION

**Ms Archana M, Student of I MBA, completed the NPTEL course on "Business Analytics for Management Decision."**



## STUDENT CERTIFICATION



# SCHOOL OF MANAGEMENT

## CERTIFICATIONS

**Mr Arun Kumar, Student of I MBA,** completed the NPTEL course on **“Leadership and Team Effectiveness.”**



## STUDENT CERTIFICATION

**Ms Nivedha C, Student of I MBA,** completed the NPTEL course on **“Talent Acquisition and Management.”**



## STUDENT CERTIFICATION

# SCHOOL OF MANAGEMENT

## CERTIFICATIONS

**Mr Sanjay A, Student of I MBA, completed the NPTEL course on "Business Analytics for Management Decision."**



## STUDENT CERTIFICATION

**Ms Naveenra, Students of I MBA, completed the NPTEL Course on "Financial Management for Managers."**



## STUDENT CERTIFICATION

# SCHOOL OF MANAGEMENT

## CERTIFICATIONS

**Dr M S Sibi/AP** completed 12-week Faculty Development Programme on **“AI in Marketing.”**



**NPTEL-AICTE**  
Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

M S SIBI

for successfully completing the course

AI in Marketing

with a consolidated score of 64 %

Prof. Andrew Thanaraj



**Mr K Srinivasan/AP** completed 12-week Faculty Development Programme on **“AI in Marketing.”**



**NPTEL-AICTE**  
Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

SRINIVASAN K

for successfully completing the course

AI in Marketing

with a consolidated score of 61 %

Prof. Andrew Thanaraj



**Mr S Siva/AP** completed 12-week Faculty Development Programme on **“AI in Marketing.”**



**NPTEL-AICTE**  
Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

S SIVA

for successfully completing the course

AI in Marketing

with a consolidated score of 50 %

Prof. Andrew Thanaraj



## FACULTY CERTIFICATIONS

# SCHOOL OF MANAGEMENT

## PUBLICATION

**Dr M S Sibi/AP** published a research article on **“Investing the Relationship between Student Motivation and Academic Performance”** in **“Educational Administration: Theory and Practice,30(5).”** Scopus-  
<https://doi.org/10.53555/kuey.v30i5.3327>

**Educational Administration: Theory and Practice**

2024, 30(5), 2713-2727

ISSN: 2148-2403

<https://skct.net/>

Research Article



Educational  
Administration  
Theory and Practice

## Investigating The Relationship Between Student Motivation And Academic Performance

Dr. K.A.Arokiaraj<sup>1</sup>, Dr. K. Prakash<sup>2</sup>, Dr. M.S. Sibi<sup>3</sup>, Dr. R. Tamilselvi<sup>4</sup>, Dr. R. Shanmugapriya<sup>5</sup>, Dr. M. Sadik Ali<sup>6</sup>

<sup>1</sup>Assistant Professor, Department of Management Studies, St. Joseph's College of Engineering, Semmencherri, OMR, Chennai, Tamilnadu, India.

<sup>2</sup>Post Doctoral Fellow (RUSA 2.0), Department of Business Administration, Annamalai University, Annamalai Nagar, Chidambaram, Tamilnadu, India.

<sup>3</sup>Assistant Professor, School of Management, Sri Krishna College of Technology, Coimbatore, Tamilnadu, India.

<sup>4</sup>Assistant Professor, Department of Business Administration, Sri Sarada Mahavidyalayam Arts and Science College for Women, Kallakurichi, Tamilnadu, India.

<sup>5</sup>Assistant Professor, Department of Business Administration, Shree Raghavendra Arts and Science College, Keezhamoongiladi, Chidambaram, Tamilnadu, India.

<sup>6</sup>Assistant Professor, Department of Business Administration, The New College, Chennai, Tamilnadu, India.

Citation: Dr. K.A.Arokiaraj,et al. (2024), Investigating The Relationship Between Student Motivation And Academic Performance, *Educational Administration: Theory and Practice*, 30(5), 2713-2727

Doi: 10.53555/kuey.v30i5.3327

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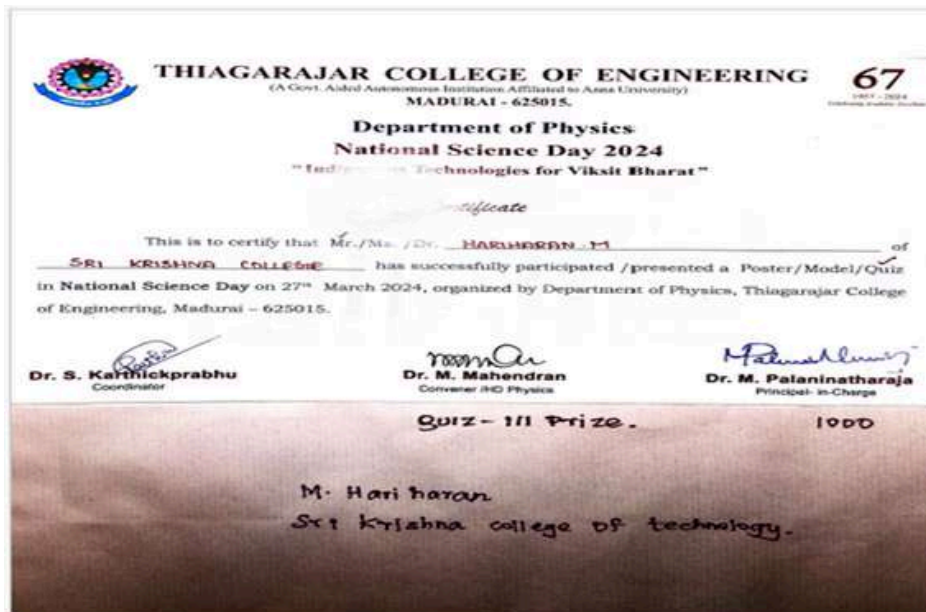
ABSTRACT

## FACULTY PUBLICATION

# SCIENCE AND HUMANITIES

## CERTIFICATION

**Mr Hariharan M, Student of First B.E. ECE**, secured the Second Place with a cash prize of **Rs. 2000/-** in an event on Video Quiz Masters organised as a part of the the **"National Science Day- Viksit Bharat"** - NSD-2024 by Thiagaraja College of Engineering, Madurai on 27 March 2024.



## STUDENT ACHIEVEMENT

# SCIENCE AND HUMANITIES

## CERTIFICATION

Ms Vishnu Priya G, Student of First B.Tech. IT C Section, achieved the **ELITE + GOLD** status in the NPTEL exam and emerged as the **top 5% performer** in the cohort.



## STUDENT ACHIEVEMENT



Ms Swetha, Student of First B.Tech. IT C Section, attended an event on **Linguathon'24** at Kumaraguru College of Technology, Coimbatore on 03 May 2024.

## STUDENT NPTEL CERTIFICATION

# SCIENCE AND HUMANITIES

## PUBLICATION

Dr N Nalini/AP published a book chapter on "Innovative Nanosensors for Detection of Dyes," in the book on "Nanotechnology-based Sensors for Detection of Environmental Pollution" by Elsevier Science on 20 May 2024.



## FACULTY ACHIEVEMENT



The Department of Science and Humanities organised an **online Guest Lecture** on "Innovations in Robotics and Automation" on 17 May 2024.

## EVENT ORGANISED

# SCIENCE AND HUMANITIES

## PUBLICATION

Dr R Thilagavathy/AP published an article on "**Process of becoming the "SELF" in Walker Percy's the last Gentleman**" in Rabindra Bharati Journal of Philosophy, an UGC approved Journal with an impact factor of **3.08**.

RABINDRA BHARATI JOURNAL OF PHILOSOPHY  
ISSN: 0973-0087

### PROCESS OF BECOMING THE 'SELF' IN WALKER PERCY'S *THE LAST GENTLEMAN*

**Dr. Thilagavathy R.**, Assistant Professor, Department of English  
Sri Krishna College of Technology, Kovaipudhur, Coimbatore 641042  
Mail-id thilagavathy.r@skct.edu.in

#### Abstract

Existentialism is a philosophical movement which arose during the war periods of the twentieth century that addressed the issues of human existence including anxiety, alienation, life, death, and free will. The nineteenth century Danish philosopher, Soren Kierkegaard who is considered as the father of existentialism has contributed significantly to this philosophy even before it could germinate. This paper is an attempt to analyse the protagonist of Walker Percy's second novel *The Last Gentleman* in the light of Kierkegaard's theory of three stages of existence. The current study aims to show how the protagonist Williston Barrette explores his existential quest by passing through the aesthetic, ethical and religious stages of life to construct his identity. The novel revolves around a twenty five year old Southern gentleman Williston Barrette who is on a search for meaning in life and how his association with the Vaught family helps him to find his real 'Self'.

**Key Words:** Existentialism- Soren Kierkegaard - Three Stages of Existence- Walker Percy- Aesthetic stage- Ethical Stage- Religious Stage- Construction of the 'Self'

Existentialism is a twentieth century philosophical movement which was born amidst the chaos of the World Wars. It gained momentum during the post war periods, when the people were caught between uncertainty and poverty, struggling to find the purpose of their birth and living. During the twentieth century, people could associate their confusions and sufferings with the ideologies of the existential movement, leading to a large following in a short span of time. It emphasized the subjective reality of individual existence, freedom and choices which were some of the dilemmas people had in mind. Followers of this movement felt that humans possessed free will in this meaningless world, and were constantly on a mission to find answers for their purpose of existence through the choices they make in life.

The history of the Existential philosophy can be traced from the times of Socrates and St. Augustine, who stressed on the importance of 'Self and Existence'. Then again during the nineteenth century, the philosophical ideas of the Danish philosopher Soren Kierkegaard strongly reflected the existential ideologies even before the movement could originate. Later during the twentieth century many philosophers became

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## FACULTY PUBLICATION



# SCIENCE AND HUMANITIES

## CERTIFICATIONS

**Dr B Kogilavani/AP** completed **Coursera courses** in May 2024.



**Dr R Thilagavathy** and **Ms S Vishnupriya, Asst. Professors** attended Seven-day Virtual FDP on **“Effectiveness of Eco-literature in Education”** organised during 22-30 April 2024.

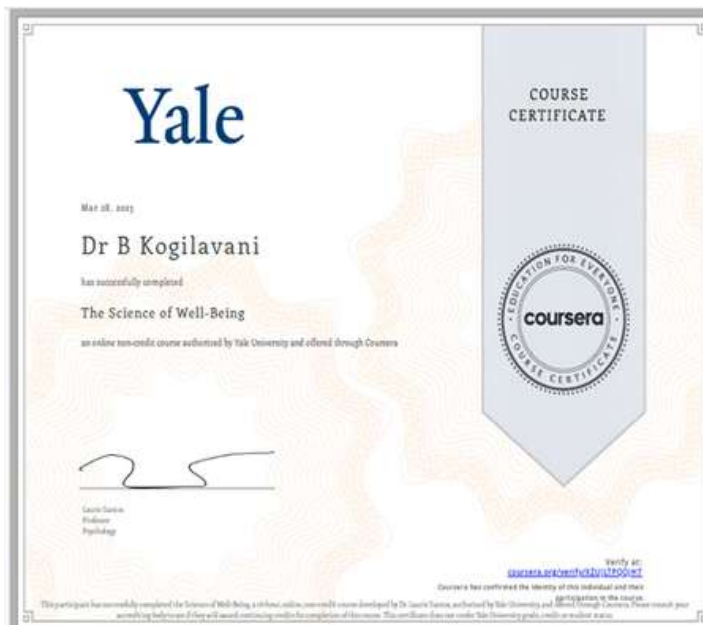


## FACULTY ACHIEVEMENTS

# SCIENCE AND HUMANITIES

## CERTIFICATION

Dr B Kogilavani Assistant Professor Department of Science and Humanities completed coursera courses in the month of May 2024.



## FACULTY PARTICIPATION

# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with SAHA organised an Alumni Talk on "Embracing Change and Impermanence of Life" at ES seminar Hall on 29 April 2024.



The poster features logos for Sri Krishna College of Technology, SAHA, and various accreditation bodies (Sri Yamuna Sustainable Development Goals, NIRF, NBA, NAAC). It lists the Department of Science and Humanities and SAHA as organizers. The event title is "Embracing change and impermanence of life". The Chief Guest is Adwaith Pramod, Consultant at Mobius Knowledge Services, Chennai. The event took place on 29.04.2024 at 10:30 am in the ES Seminar Hall. The Principal, Convenor, and Faculty Coordinator are also listed.

## EVENT ORGANISED

# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with SAHA organised a Guest Lecture on "Design your Destiny" at ES seminar Hall on 27 April 2024.

**Sri Krishna College of Technology**  
 Department of Science and Humanities  
**SAHA**  
 Science And Humanities Association  
**Organises Guest Lecture on Design your Destiny**

**Chief Guest**  
 Dr.P.T.Saleendran  
 Professor & Head,  
 Department of Psychology,  
 Sri Krishna Arts and Science College, Coimbatore

**27.04.2024 | 10:00 am | ES Seminar Hall**

Presided by: Dr. M. G. Sankaran, Principal  
 Convenor: Dr. D. Vasantha kumar, HOD (SH) /SSH  
 Faculty Coordinator: Dr. K. R. Kameshwar, ASP, SH /SSH  
 Dr. D. Sambash Shanthakumar, API, SSH

All are Cordially Invited



## EVENT ORGANISED

# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with the Mozhi Club organised a Guest Lecture on "Importance of Communication" at PG Seminar Hall on 26 April 2024.

**Sri Krishna College of Technology**

**Department of Science and Humanities**  
In association with Mozhi club

**Guest Lecture on**  
**Importance of Communication**

**Resource Person**  
**Mr. E. Niranjan**  
Asst. Professor in English  
PSG College of Arts and Science  
Coimbatore

Presided by: **Dr. M. G. Sumithra** (Principal)  
Convenor: **Dr. D. Vasantha kumari** (HOD (ic) / SSH)  
Faculty Coordinator: **Ms. S. Pavithra** (AP/ SSH)

26.04.2024 | 10.30 to 11.30 am | PG Block Seminar Hall

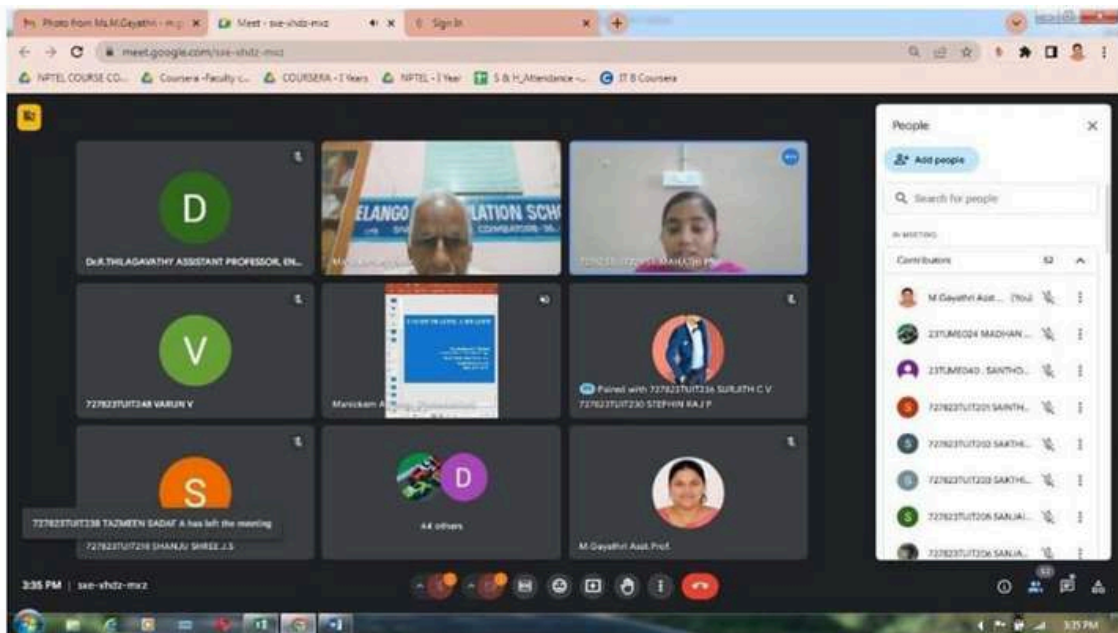
All are Cordially Invited



## FACULTY ACHEIVEMENT

# SCIENCE AND HUMANITIES

The Department of Science and Humanities in association with SAHA organised a Guest Lecture on **"Balancing a Bytes and Bliss: Integrating Tech and Nature for Teen Health"** through online mode on 21 May 2024.



EVENT ORGANISED

# SCIENCE AND HUMANITIES

The Department of Science and Humanities organised an online Technical Talk on “Recent Innovations in Energy Storage Devices” on 18 May 2024.

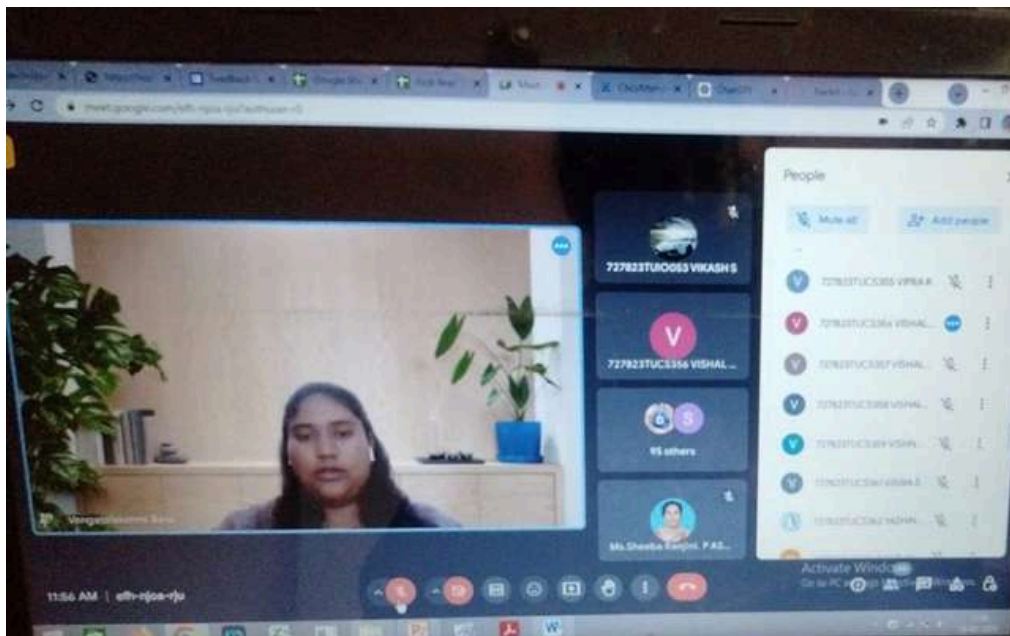
The poster features logos for Sri Krishna College of Technology, NIRF, NBA, NAAC, and SAHA. It announces a technical talk on "Recent Innovations in Energy Storage Devices" organized by the Department of Science and Humanities. The resource person is Dr. B. Saravanakumar, Associate Professor at Mahalingam College of Engineering and Technology. The event is presided by Dr. M. G. Sumithra, Convened by Dr. D. Vasantha kumari, and coordinated by Dr. A. Venkatraj. It is scheduled for 18.05.2024 from 03:30 p.m. to 04:30 p.m. on a virtual platform. The poster also includes the "Developed India Mission" logo and social media handles for SKCT.

The screenshot shows a Zoom meeting in progress. The main window displays a presentation slide titled "21st Century energy storage devices" with three categories: 01 Batteries (High energy density and less power density), 02 Fuel cells (High energy density and less power density), and 03 Supercapacitors (High power uptake with comparable energy density). The Zoom interface shows several participants in a grid view on the right, including Saravanakumar Balakrishnan (Presenting), and a bottom toolbar with icons for mute, video, chat, and other meeting controls.

EVENT ORGANISED

# SCIENCE AND HUMANITIES

The Department of Science and Humanities in association with SAHA organised an Alumni Talk on **"The Power of Small Wins"** on 17 May 2024.



EVENT ORGANISED



# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with SAHA organised a Guest Lecture on "**Converse to Connect: Enhancing Life Skills through Communication**" on 08 May 2024.

Department of Science and Humanities Organises

### A GUEST LECTURE

on

Converse to Connect: Enhancing Life Skills through Communication



Resource Person  
**Dr. S. Sankara Kumar**  
Assistant Professor/ English  
PSG College of Technology, Coimbatore

08.05.2024 | 03.30 p.m. to 4.30 p.m. | Virtual Platform



## EVENT ORGANISED

# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with IIC organised an Expert Talk on "Unleashing Innovation: Next generation AI Powered Marketing Tactics for Entrepreneurial Triumph" on 17 May 2024.

Department of Science and Humanities Organises  
**A GUEST LECTURE**  
on  
**Unleashing Innovation: Next-Generation AI powered Marketing Tactics for Entrepreneurial Triumph**

**Resource Person**  
**Mr. R. Nithin**  
Asst. Manager, Marketing Department,  
Lifestyle International pvt. Ltd. , Bengaluru

17.05.2024 | 11.00 to 12.30 pm | Virtual Platform

Presided by      Convener      Faculty Coordinator

Participants visible in the grid:

- NITHIN.R Nithin
- 727823TUCS323 SRI DEVI K
- 727823TUCS340 UDHAYA KARTHIGA
- 727823TUCS236 RAMSANKAR S
- 727823TUCS311 SHALINI K
- 727823TUCS215 OVIYA S
- 92 others

**4P & 4C IN MARKETING**

The 4C focuses on what Customers perceive.

4P: Product, Price, Place, Promotion

4C: Customer, Company, Channels, Community

Contributors (100):

- Ms.P.insha Asst... (You) Meeting host
- 23TUCS204 NEVLIN J.
- 23TUCS209 NISHANTH P
- 23TUCS212 NITHISH KUL
- 23TUCS231 RAGAWAN C
- 727823TUCS363 YAZHL
- 727823TUCS364 VANUL
- Ms.Sheeba Ranjini.P.A.
- NITHIN.R Nithin
- NITHIN.R Nithin Presentations
- Perumal Rajan
- SHANMUGA PRIYAT
- SNAY

## EVENT ORGANISED

# SCIENCE AND HUMANITIES

## EVENT

The Department of Science and Humanities in association with IIC organised an online webinar on **"Building Bridges: Entrepreneurial Mindset for Successful Accomplishments"** on 08 May 2024.

Department of Science and Humanities Organises

### A GUEST LECTURE

on

Building Bridges: Entrepreneurial Mindset for Successful Accomplishments



Resource Person

Ms. Ponnalar Vidhyasagar

HR in Ad Astra consultants Pvt Ltd, Bangalore.

Team and Branch Head of Coimbatore.

08.05.2024 | 02.15 to 03.15 p.m. | Virtual Platform



EVENT ORGANISED



SKCT supports the Sustainable Development Goals



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**Dr M G Sumithra**  
PRINCIPAL

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Mechanical Engineering

**Ms B Pavithra**  
Assistant Professor  
English

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