SRI KRISHNA INSTITUTIONS COIMBATORE

SUSTAINABLE DEVELOPMENT GOALS

SKCT supports the Sustainable Development Goals

Sri Krishna College of Technology
An Autonomous Institution
Affiliated to Anna University and Approved by AICTE
Accredited by NAAC with 'A' Grade
KOVAIPUDUR CAMPUS, COIMBATORE - 641 042.

VOL 25- ISSUE 22
MAY 25 - MAY 31, 2025

SKCT DIGEST

THE PRIDE OF OUR REFLECTION

ISBN NUMBER
978-93-5895-815-7

Don't be pushed around by the fears in your mind. Be led by the dreams in your heart.
-Roy T. Bennett

Contact Us
0422-2984567 - 68
Kovaipudur,
Coimbatore - 641 042.

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

FACULTY CERTIFICATION

Dr C P Maheswaran, Professor, successfully completed the course on **"Introduction to Artificial Intelligence"** through Infosys Springboard and the following certifications through AWS Training and Certification:

1)Amazon Braket Quantum Application Development

2)Amazon Braket Knowledge Badge Assessment

3)Amazon Braket Getting Started

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

FACULTY CERTIFICATION

Ms Kalaivani R, Asst. Professor, successfully completed the courses on **"Generative Models for Developers"** and **"Principles of Generative AI Certification"** through Infosys Springboard.

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

FACULTY CERTIFICATION

Ms Deepa P, Asst. Professor, successfully completed the courses on **"Generative Models for Developers"** and **"Principles of Generative AI Certification"** through Infosys Springboard.

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

STUDENTS' PARTICIPATION

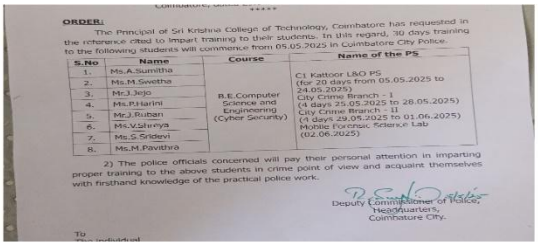
Mr Sakthi S and **Mr Vasantha Raj M**, Students of Second B.Tech. AI&DS, secured the **Second Place** in **SheHacks'25**, a 24-hour coding hackathon conducted by the IEEE Women in Engineering (WIE) Affinity Group of KPR Institute of Engineering and Technology (KPRIET) during 23–24 May 2025.

CYBER SECURITY

STUDENTS' INTERNSHIP

The following First Year Students of B.E. CSE (Cyber Security) has been attending an **Internship at the Cyber Crime Department, Coimbatore :**

- **Mr J Jejo**
- **Ms V Shreya**
- **Ms A Sumitha**
- **Mr J Ruban J**
- **Ms S Sridevi**
- **Ms M Pavithra**
- **Ms P Harini**
- **Ms M Sweatha**


ORDER:

The Principal of Sri Krishna College of Technology, Coimbatore has requested in the reference cited to impart training to their students. In this regard, 30 days training to the following students will commence from 05.05.2025 in Coimbatore City Police.

S.No	Name	Course	Name of the PS
1.	Ms.A.Sumitha	B.E.Computer Science and Engineering (Cyber Security)	C1 Kattoor L&O PS (for 20 days from 05.05.2025 to 24.05.2025)
2.	Ms.M.Swetha		City Crime Branch - I (4 days 25.05.2025 to 28.05.2025)
3.	Mr.J.Jejo		City Crime Branch - II (4 days 29.05.2025 to 01.06.2025)
4.	Ms.P.Harini		Mobile Forensic Science Lab (02.06.2025)
5.	Mr.J.Ruban		
6.	Ms.V.Shreya		
7.	Ms.S.Sridevi		
8.	Ms.M.Pavithra		

2) The police officials concerned will pay their personal attention in imparting proper training to the above students in crime point of view and acquaint themselves with firsthand knowledge of the practical police work.

Deputy Commissioner of Police, Headquarters, Coimbatore City.

To

CYBER SECURITY

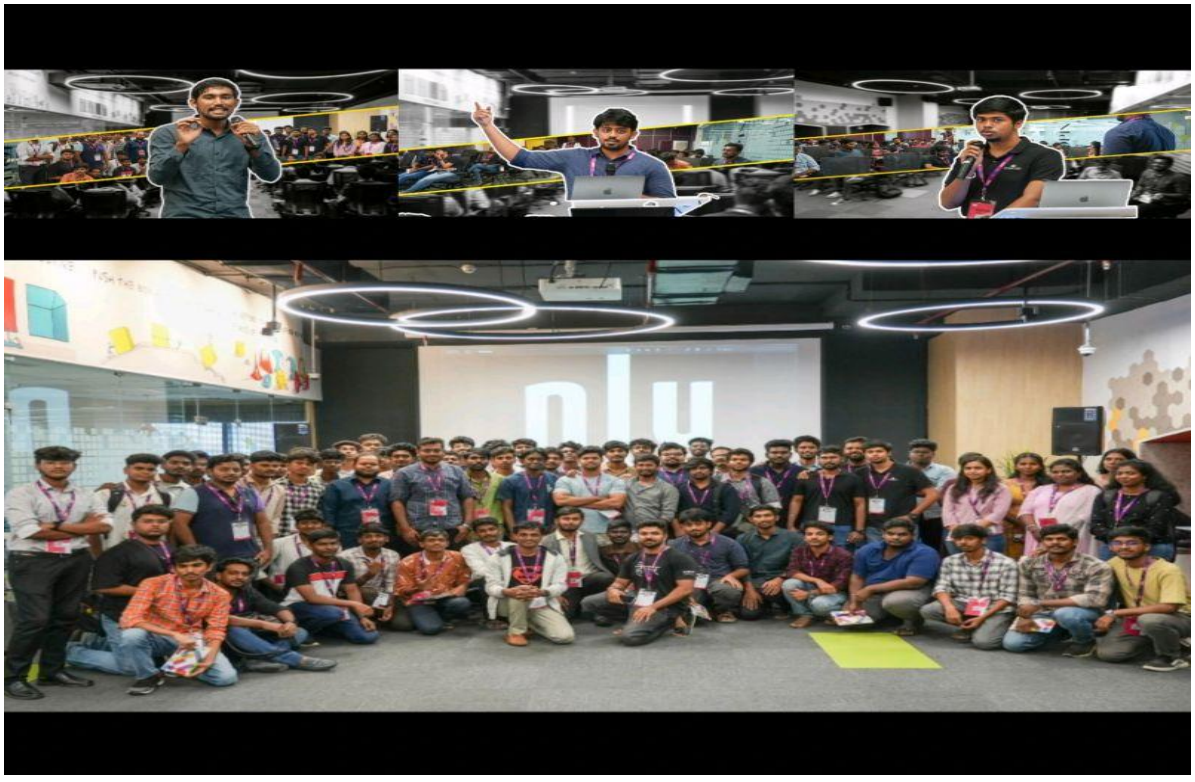
STUDENT INTERNSHIP

Ms P Pavithra, Student of First B.E. CSE (CYS), successfully completed a **4-week Virtual Internship** at **Pinnacle Labs** during 21 April - 21 May 2025.

CYBER SECURITY

STUDENT PARTICIPATION

Mr S Manoj, Student of Third B.E. CSE (CYS), attended a workshop - **"NULL CHENNAI & OWASP Chennai Chapter Meetup"** during 25 May 2025.



ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

STUDENT INTERNSHIP

Mr S Shyam Prasath, Student of First B.E. CSE (AIML), received an **Internship Offer** from **Nobel Community** for 2025.

SHYAM PRASATH S <727824tuam047@skct.edu.in>

Eduquest results
2 messages

internships@nobelhub.com <internships@nobelhub.com> Sat, May 17, 2025 at 11:13 PM
Reply-To: internships@nobelcoaching.com
To: 727824tuam047@skct.edu.in

NOBEL

Nobel Group Interview - Congratulations

Dear SHYAM PRASATH S,

Congratulations! You have been selected to join the Nobel Internship Program. Welcome to the Nobel community! Our global learning and leadership team is thrilled to have you on board, and we're excited to support you on this journey of growth and impact.

To get started, we'd like to inform you of the following:

- Orientation Date: **May 23, 2025 19:30, Asia/Kolkata**
- Join our communication platform on Discord: **https://discord.gg/zFkmyQN5T8**
- Please fill out this form after you join our server: **Discord ID Collection Form**
- Your internship schedule: **APR 12 WE cohort resource sheet**
- Note: If you are joining us from Türkiye, here is the instructions video for Turkish Interns to access Discord: **Nobel discord TR with music.mp4**

If you have any questions or need more information, feel free to reach out to us at internships@nobelcoaching.com.

We're excited to see all that you'll accomplish with us!

Warm regards,
The Nobel Team.

INTERNET OF THINGS

STUDENT INTERNSHIP

Mr M Mounish, Student of First B.E. CSE (IoT), received an **Internship Offer** from **Codec Technologies** for 2025.

CODEC TECHNOLOGIES

INTERNSHIP OFFER LETTER

Dear Mounish M ,

We are pleased to offer you a 3 Month Internship as Project Intern at Codec Technologies, a global platform dedicated to empowering learners and connecting diverse talent to create meaningful career opportunities worldwide. Codec Technologies delivers dedicated IT and business consultancy services across more than 27 countries, empowering global innovation and strategic growth.

Internship Details:

- Designation : Java Developer Intern
- Location : Hybrid / India
- Duration : 01/06/2025 to 03/08/2025
- Reporting to : Assigned Project Head(s)

INTERNET OF THINGS

STUDENT CERTIFICATION

Mr Y Godreign Elgin, Student of Third B.E. CSE (AIML), successfully completed a 5-day online course on **"Gen AI Intensive"** offered by Kaggle in 2025.

CIVIL ENGINEERING

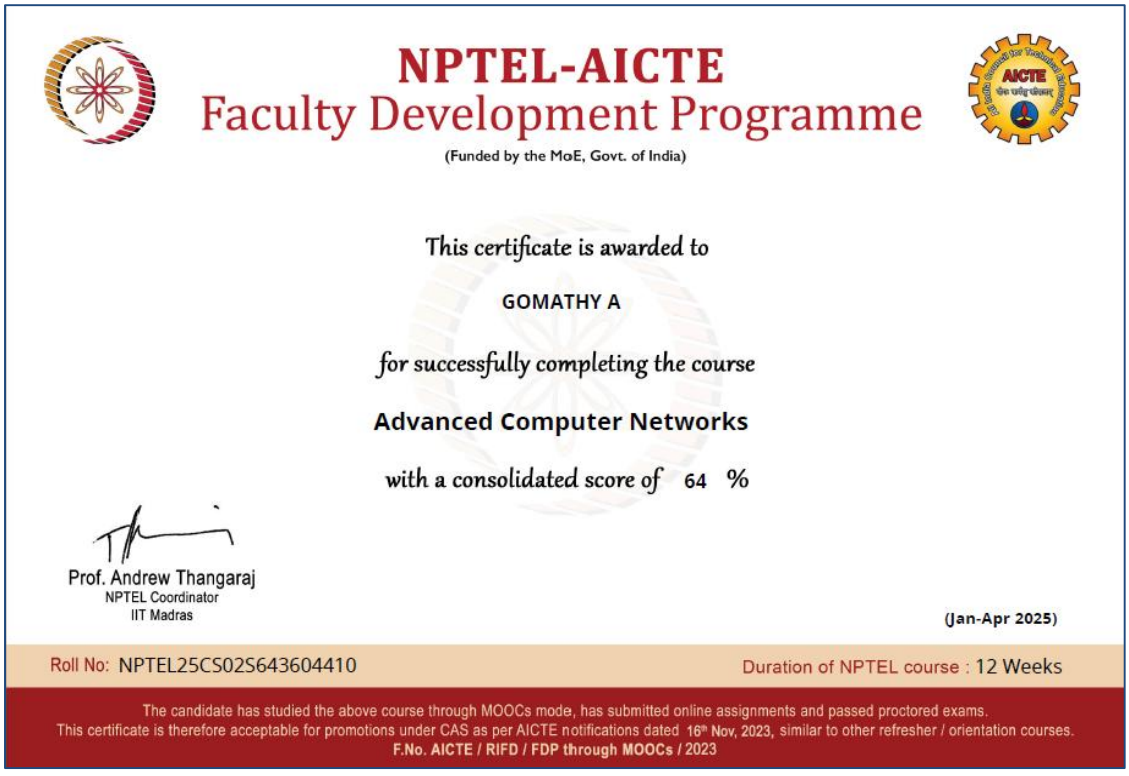
STUDENTS' ACHIEVEMENT

Ms Anu Banupriya S and **Ms Deva Darshini N,** Students of First B.E. Civil Engineering, successfully completed a 2-week internship on **"Role of Civil Engineers in the Mining Project"** at NLC India Limited (NLCIL), Neyveli, during 05-17 May 2025.

COMPUTER SCIENCE AND ENGINEERING

FACULTY PARTICIPATION

Ms A Gomathy, Asst. Professor, successfully completed a Faculty Development Programme on **"Advanced Computer Networks"** through NPTEL-SWAYAM.



NPTEL-AICTE
Faculty Development Programme
(Funded by the MoE, Govt. of India)

This certificate is awarded to

GOMATHY A

for successfully completing the course

Advanced Computer Networks

with a consolidated score of 64 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Apr 2025)

Roll No: NPTEL25CS02S643604410

Duration of NPTEL course : 12 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023

CIVIL ENGINEERING

FACULTY ACHIEVEMENT

Dr N Shanmugasundaram, Asst. Professor, received a **Certificate of Recognition** from Anna University for publishing 7 Q1-ranked journal articles during his Ph.D. research (2021-2024).

CENTRE FOR RESEARCH
ANNA UNIVERSITY, CHENNAI – 600 025

Certificate of Recognition

This certificate is awarded to

Dr. .....Shanmugasundaram....N.....

Reg. No. .....2114169.7117.....

on 17th April 2025 in appreciation of publishing his/her research in a **Q1 Journal** during the course of the Ph.D. Degree.

Director i/c
Centre for Research

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PARTICIPATION

Dr M G Sumithra, Principal, attended the 7th Online Workshop on **"IKS-TKDL - Traditional Knowledge - Intellectual Property & People's Rights"** organized by the IKS Division in collaboration with CSIR-TKDL during 1–7 April 2025.

Indian Knowledge Systems Division
Ministry of Education

CSIR-Traditional Knowledge Digital Library Unit
Ministry of Science & Technology

प्रमाणपत्रम्/Certificate

S.No: 2023243566

This Merit Certificate is awarded to M. G. Sumithra

Desg: Principal

Inst: Sri Krishna College of Technology

for their outstanding performance with a score of 75% or above, in the 7th Online Workshop on IKS-TKDL: Traditional Knowledge - Intellectual Property & People's Rights, organized by the Indian Knowledge Systems (IKS) Division, Ministry of Education, and CSIR-Traditional Knowledge Digital Library (TKDL) Unit, Ministry of Science and Technology, from 1st till 4th & 7th April, 2025.

Scan & Verify

This certificate is electronically generated and hence does not require a signature.

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PUBLICATION

Mr R Naveenkumar, Asst. Professor, published a research article on **"Intelligent Ambulance System for Rapid Response and Seamless Hospital Coordination"** in proceedings of 5th International Conference on Artificial Intelligence and Smart Energy (Springer) 2025.

Intelligent Ambulance System for Rapid Response and Seamless Hospital Coordination

R. Naveenkumar(✉), S. Janani, J. Gomathi, Gayathri, and R. S. Janani

Department of Electronics and Communication Engineering, Sri Krishna College of Technology, Coimbatore, India
naveentamil256@gmail.com

Abstract. In emergency medical situations, timely intervention is crucial for saving lives. Current emergency medical services often rely on manual processes for patient identification and hospital coordination, leading to inefficiencies. This project proposes an advanced ambulance system that integrates real-time technology for improved patient identification and hospital communication. Central to the system is a fingerprint recognition module that allows for rapid patient identification, retrieving their information from a database and notifying the nearest hospital to prepare for the patient's arrival. An emergency button ensures that in cases where fingerprint identification is not feasible, ambulance staff can secure a hospital bed without specific patient information. The system also features real-time navigation for optimized routes based on traffic conditions, minimizing delays. By automating key processes, this smart ambulance system reduces human error, enhances Emergency Medical Services (EMS) efficiency, improves hospital communication, and optimizes resource allocation. Ultimately, it aims to provide faster and more appropriate care, significantly improving patient outcomes in emergency situations.

Keywords: Emergency Medical Services (EMS) · automated hospital selection · fingerprint recognition · real-time data · bed reservation · patient identification · ambulance navigation · healthcare optimization

1 Introduction

In emergency medical care, every second is vital. EMS play a main role in transporting patients to hospitals quickly, but current systems often face several challenges. These challenges include the manual identification of patients, the lack of real-time communication with hospitals, and the difficulty of navigating urban areas with heavy traffic. This project proposes a solution that integrates fingerprint recognition and real-time navigation to streamline patient identification and hospital coordination during emergency transportation.

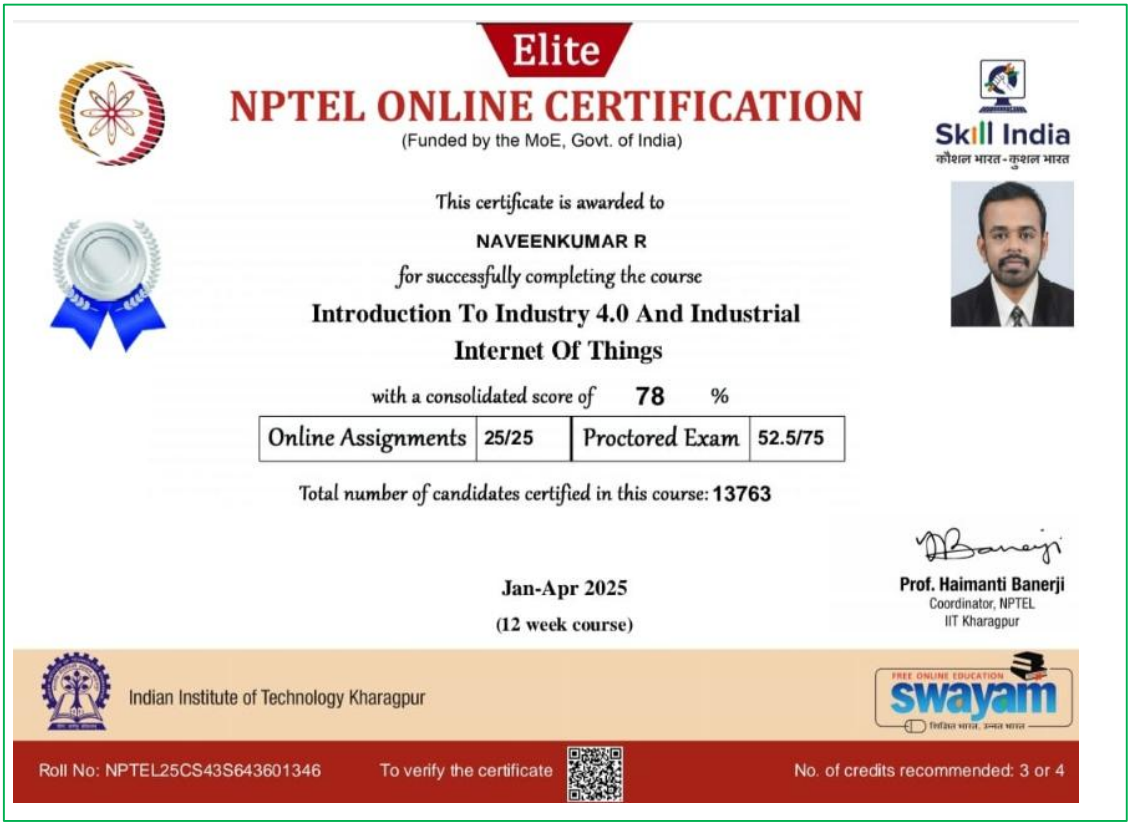
One of the main issues with the current Emergency Medical Services (EMS) protocol is the reliance on manual processes for hospital selection and communication. Typically, ambulance personnel must determine the nearest appropriate hospital based

S. Manoharan et al. (Eds.): ICAIS 2025, ISEM 42, pp. 497–510, 2025.
https://doi.org/10.1007/978-3-031-90482-0_40

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY CERTIFICATION

Mr R Naveenkumar, Asst. Professor, completed a 12-week course on **"Introduction to Industry 4.0 and Industrial Internet of Things" with Elite + Silver** offered through NPTEL.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

NAVEENKUMAR R

for successfully completing the course

Introduction To Industry 4.0 And Industrial Internet Of Things

with a consolidated score of 78 %

Online Assignments	25/25	Proctored Exam	52.5/75

Total number of candidates certified in this course: 13763

Jan-Apr 2025

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL25CS43S643601346 To verify the certificate No. of credits recommended: 3 or 4

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PARTICIPATION

Mr G Santhakumar, Asst. Professor, attended the 7th Online Workshop on **"IKS-TKDL - Traditional Knowledge - Intellectual Property & People's Rights"** organized by the IKS Division in collaboration with CSIR-TKDL during 1–7 April 2025.

Indian Knowledge Systems Division
Ministry of Education

CSIR-Traditional Knowledge Digital Library Unit
Ministry of Science & Technology

Goverment Of India

प्रमाणपत्रम्/Certificate

S.No: 2023243535

This Merit Certificate is awarded to.....Santhakumar G.....

Desg:.....Assistant Professor.....

Inst:.....Sri Krishna College of Technology.....

for their outstanding performance with a score of 75% or above, in the 7th Online Workshop on IKS-TKDL: Traditional Knowledge - Intellectual Property & People's Rights, organized by the Indian Knowledge Systems (IKS) Division, Ministry of Education, and CSIR-Traditional Knowledge Digital Library (TKDL) Unit, Ministry of Science and Technology, from 1st till 4th & 7th April, 2025.

Scan & Verify

This certificate is electronically generated and hence does not require a signature.

ELECTRICAL AND ELECTRONICS ENGINEERING

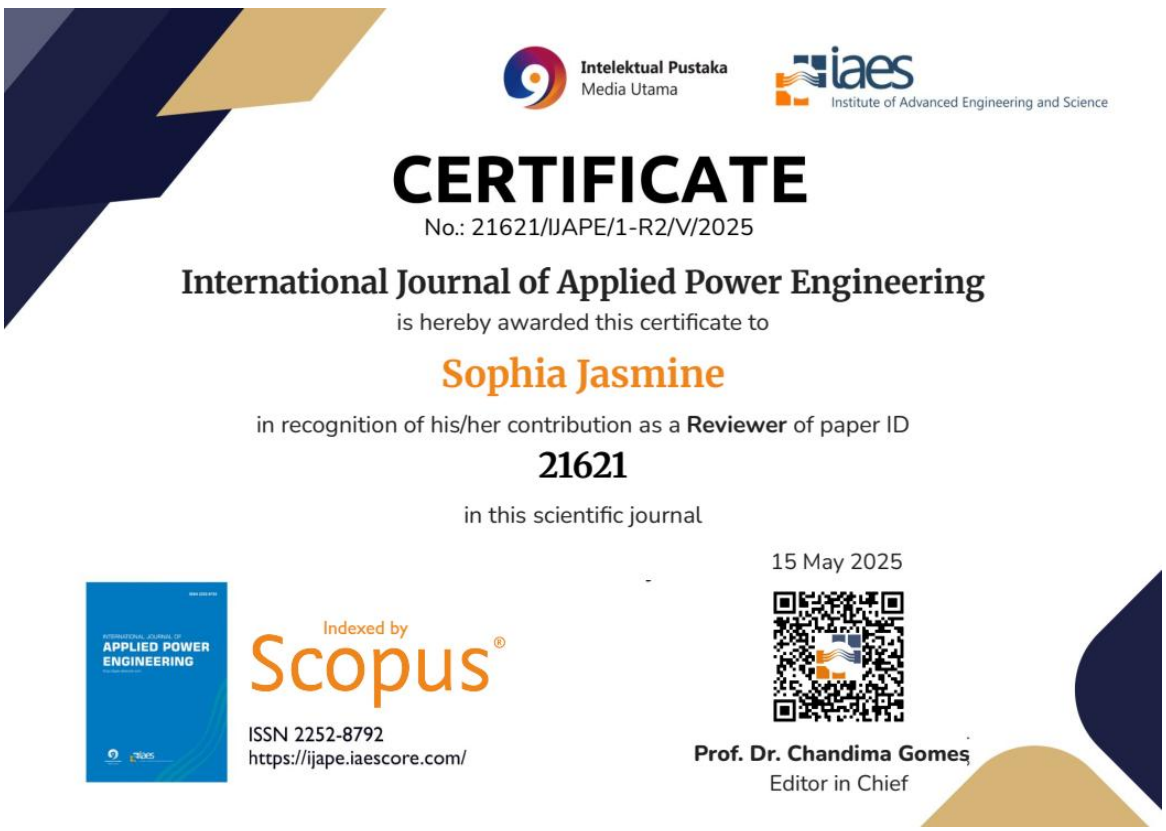
FACULTY PUBLICATION

Dr Sanjana Devi V S, Asst. Professor and the Students of Final B.E. EEE, published a research article on **"A Modified Brushless Isolated Sepic Converter Fed With HB-LLC Resonant Converter For Power Factor Correction"** in Micro2025, organized by Jalpaiguri Government Engineering College, Jalpaiguri, during 10-11 May 2025.

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY ACHIEVEMENT

Dr Sophia Jasmine D, Assoc. Professor, received a **Certificate of Appreciation** for reviewing articles in the International Journal of Applied Power Engineering on 15 May 2025.



Intelektual Pustaka Media Utama

iaes Institute of Advanced Engineering and Science

CERTIFICATE

No.: 21621/IJAPE/1-R2/V/2025

International Journal of Applied Power Engineering

is hereby awarded this certificate to

Sophia Jasmine

in recognition of his/her contribution as a **Reviewer** of paper ID

21621

in this scientific journal

15 May 2025

Indexed by Scopus®

ISSN 2252-8792

https://ijape.iaescore.com/

Prof. Dr. Chandima Gomes

Editor in Chief

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION

Mr Bharaniprakash T, Asst. Professor and the Students of B.E. ICE, published a research article on **"Dam Monitoring and Control System using IoT"** in ICIMA-2025, organized by Muthayammal Engineering College, Rasipuram, during 28-30 May 2025.


MUTHAYAMMAL ENGINEERING COLLEGE
An Autonomous Institution
Approved by AICTE | Affiliated to Anna University

IEEE

IEEE PES
Power & Energy Society

Certificate of Presentation

This is to certify that

Prajeesh S

has participated & successfully presented the paper entitled

Dam Monitoring and Control System usin

at the

7th International Conference on Inventive Material Scier
(ICIMA-2025) held from 28th-30th, May 2025 at Muthayam
Rasipuram, Tamil Nadu, India.

Session Chair

Dr. P. Suresh
Conference Chair


MUTHAYAMMAL ENGINEERING COLLEGE
An Autonomous Institution
Approved by AICTE | Affiliated to Anna University

IEEE

IEEE PES
Power & Energy Society

Certificate of Presentation

This is to certify that

T Bharani Prakash

has participated & successfully presented the paper entitled

Dam Monitoring and Control System using IoT

at the

7th International Conference on Inventive Material Science and Applications
(ICIMA-2025) held from 28th-30th, May 2025 at Muthayammal engineering college,
Rasipuram, Tamil Nadu, India.

Session Chair

Dr. P. Suresh
Conference Chair

Dr. M. Madheswaran
Principal

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION

Dr Lijo Jacob Varghese, Professor & Head and the Students of B.E. EEE, published a research article on **"Energy-Efficient Smart Street Lighting with Fault Detection and Real-Time Monitoring"** in IEEE Xplore (ICICT-2025), organized by International Conference on Inventive Computation Technologies, Kirtipur, Nepal during 23-25 April 2025.

Energy-Efficient Smart Street Lighting with Fault Detection and Real-Time Monitoring

Publisher: IEEE | Cite This | PDF

Lijo Jacob Varghese ; Prasath SR ; Rahul M ; Rathi Prabha E All Authors

Abstract

Document Sections
I. Introduction
II. Literature Review
III. Critical Aspects of Economic Analysis
IV. Proposed System
V. Result and Discussion
Show Full Outline
Authors
Figures
References
Keywords

Abstract:
The essential aspect for developing sustainable urban infrastructure includes effective energy management in street lighting systems. Street lighting systems require automaticstanding models with advanced energy efficiency alongside costefficient elements and systems for fault detection and energy reporting coupled with surveillance functions. System integration features sensors together with objects detection elements and real-time monitoring technology which dynamically adjusts lighting activities. Security increases through camera-based surveillance which enables remote video monitoring and adaptive lighting enables better human traffic visibility and avoids unnecessary energy usage by adapting to movements from animals. The system operates through a combination of solar power elements that charge lithium-ion cells for optimum utilization. A smart grid interface enables the system to provide live energy monitoring while enabling predictive equipment maintenance and adaptive lighting protocols to decrease operational disruptions. Energy reports are developed from continuously monitored and recorded voltage, current and power data which enables businesses to reach maximum operational effectiveness. The fault detection system can immediately identify broken streetlights while enhancing maintenance operations. IoT technology alongside machine learning and data analytics boosts fault identification and predictive services and energy monitoring so operators gain more reliable and affordable operation. The deployment of intelligent features leads to substantial energy-saving reductions along with improved city security levels. The paper reviews current strategic frameworks and technical approaches before establishing basic requirements for upcoming urban illumination systems. Technology applications contribute to constructing smart cities because they deliver better infrastructure while reducing power usage and increasing town safety.

Published in: 2025 International Conference on Inventive Computation Technologies (ICICT)

Date of Conference: 23-25 April 2025
DOI: 10.1109/ICICT64420.2025.11004986
Date Added to IEEE Xplore: 23 May 2025
Publisher: IEEE
ISBN Information:
Conference Location: Kirtipur, Nepal
ISSN Information:

Back to Results | Next >

Need Full-Text access to IEEE Xplore for your organization?
CONTACT IEEE TO SUBSCRIBE >

More Like This

Enhancing Energy Efficiency and Security in IoTDriven Smart Cities Using Hybrid GAN-ICA Framework
2024 Global Conference on Communications and Information Technologies (GCCIT)
Published: 2024

Centralized Monitoring System Street Light Fault Detection and Location Tracking for Smart City
2024 International Conference on Electronics, Computing, Communication and Control Technology (ICECCC)
Published: 2024

Show More

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION

Dr Lijo Jacob Varghese, Professor & Head and Students of B.E. EEE, published a research article on **"IoT Based Smart Water Meter for Domestic Utility"** in IEEE Xplore (ICICT-2025), organized by International Conference on Inventive Computation Technologies, Kirtipur, Nepal during 23-25 April 2025.

IoT Based Smart Water Meter for Domestic Utility

Publisher: IEEE | Cite This | PDF

Lijo Jacob Varghese ; Devanath V. ; Kishore V. ; Poornima R ; Suma Sira Jacob **All Authors**

< Previous | Back to Results | Next >

Need Full-Text access to IEEE *Xplore* for your organization?

CONTACT IEEE TO SUBSCRIBE >

Abstract

Document Sections

I. Introduction

II. Related Work

III. Proposed Work

IV. Results & Discussion

» Conclusion

Authors

Figures

References

Keywords

Abstract:

In the absence of water, our kind would face extinction. Rapid population growth and increasing urbanization have become water usage monitoring a critical issue in our society. The water use of residences may be monitored, regulated, and perhaps reduced. The Internet of Things has recently introduced the potential for electronic devices, systems, and applications that might diminish water use in urban environments and structures. Although extensive study has been conducted on smart meter systems utilizing the IoT, there is significantly less investigation into the IoT sensor node, especially concerning battery longevity. This research aims to create and assess an efficient and effective data collection approach for IoT-based smart metering applications, emphasizing the significance of energy consumption. The system comprises a Wi-Fi-ESP8266, an Arduino Uno, and water flow sensors. This research introduces an IoT smart water meter system employing two ESP32 microcontrollers arranged in a master-slave configuration. It utilizes Wi-Fi connectivity for instantaneous monitoring and control. Utilizing a water flow sensor and the subordinate ESP32, connected to a local Wi-Fi network, data on water use may be transmitted wirelessly to the primary ESP32. Users may remotely track their water consumption using web platforms or mobile applications, while the master unit aggregates all data to provide real-time alerts for any irregular usage. The Wi-Fi-enabled communication among the ESP32 units renders the design optimal for both residential and commercial applications, as it eliminates the necessity for wired connections. To enhance water management, install a smart meter and utilize its features, such as leak detection and water conservation insights. The ESP32's Wi-Fi capabilities facilitate integration into larger IoT ecosystems, enhancing the system's scalability. This system provides comprehensive, real-time data to facilitate decision-making, promoting sustainable water ...

Show More

More Like This

Thermal-Aware Resource Management for Embedded Real-Time Systems
IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
Published: 2018

Heterogeneous resource management for dynamic real-time systems
Proceedings 9th Heterogeneous Computing Workshop (HCW 2000) (Cat. No.PR00556)
Published: 2000

Show More

Published in: 2025 International Conference on Inventive Computation Technologies (ICICT)

Date of Conference: 23-25 April 2025

DOI: 10.1109/ICICT64420.2025.11005058

Date Added to IEEE *Xplore*: 23 May 2025

Publisher: IEEE

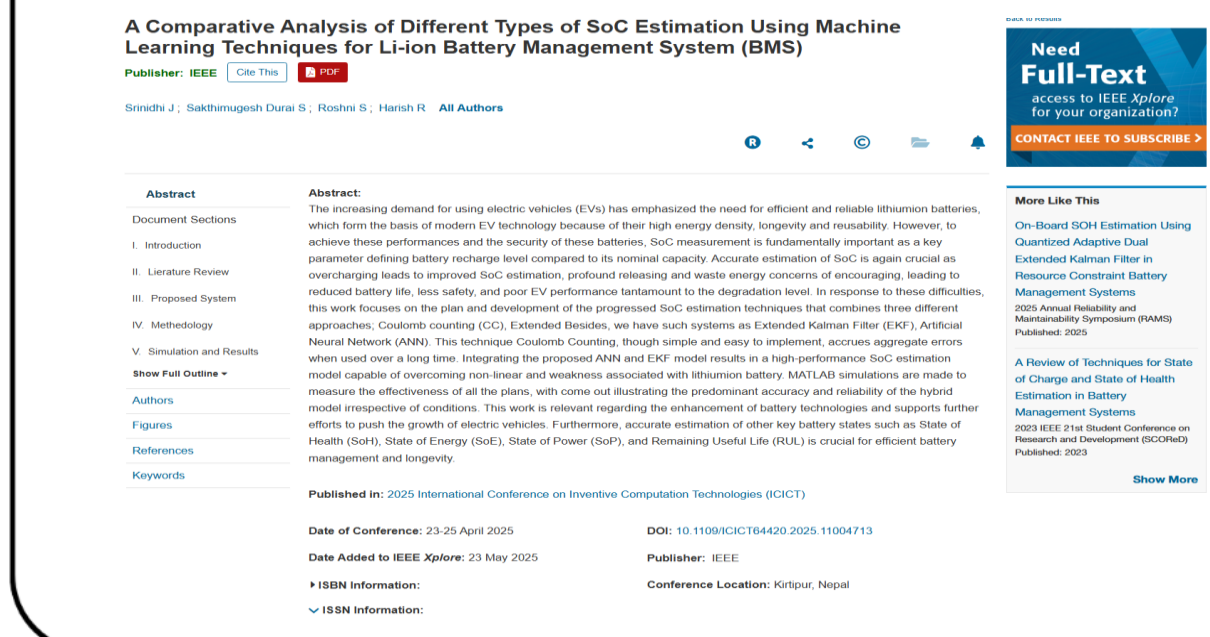
ISBN Information:

Conference Location: Kirtipur, Nepal

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION

Mr Harish R, Asst. Professor and the Students of B.E. EEE, published a research article on **"A Comparative Analysis of Different Types of SoC Estimation Using Machine Learning Techniques for Li-ion Battery Management System (BMS)"** in IEEE Xplore (ICICT-2025), organized by International Conference on Inventive Computation Technologies, Kirtipur, Nepal during 23-25 April 2025.



A Comparative Analysis of Different Types of SoC Estimation Using Machine Learning Techniques for Li-ion Battery Management System (BMS)

Publisher: IEEE | Cite This | PDF

Srinidhi J ; Sakthimugesh Durai S ; Roshni S ; Harish R All Authors

Abstract
Document Sections
I. Introduction
II. Lierature Review
III. Proposed System
IV. Methedology
V. Simulation and Results
Show Full Outline
Authors
Figures
References
Keywords

Abstract:
The increasing demand for using electric vehicles (EVs) has emphasized the need for efficient and reliable lithiumion batteries, which form the basis of modern EV technology because of their high energy density, longevity and reusability. However, to achieve these performances and the security of these batteries, SoC measurement is fundamentally important as a key parameter defining battery recharge level compared to its nominal capacity. Accurate estimation of SoC is again crucial as overcharging leads to improved SoC estimation, profound releasing and waste energy concerns of encouraging, leading to reduced battery life, less safety, and poor EV performance tantamount to the degradation level. In response to these difficulties, this work focuses on the plan and development of the progressed SoC estimation techniques that combines three different approaches; Coulomb counting (CC), Extended Besides, we have such systems as Extended Kalman Filter (EKF), Artificial Neural Network (ANN). This technique Coulomb Counting, though simple and easy to implement, accrues aggregate errors when used over a long time. Integrating the proposed ANN and EKF model results in a high-performance SoC estimation model capable of overcoming non-linear and weakness associated with lithiumion battery. MATLAB simulations are made to measure the effectiveness of all the plans, with come out illustrating the predominant accuracy and reliability of the hybrid model irrespective of conditions. This work is relevant regarding the enhancement of battery technologies and supports further efforts to push the growth of electric vehicles. Furthermore, accurate estimation of other key battery states such as State of Health (SoH), State of Energy (SoE), State of Power (SoP), and Remaining Useful Life (RUL) is crucial for efficient battery management and longevity.

Published in: 2025 International Conference on Inventive Computation Technologies (ICICT)

Date of Conference: 23-25 April 2025
DOI: 10.1109/ICICT64420.2025.11004713
Date Added to IEEE Xplore: 23 May 2025
Publisher: IEEE
ISBN Information:
Conference Location: Kirtipur, Nepal
ISSN Information:

Need Full-Text access to IEEE Xplore for your organization?
CONTACT IEEE TO SUBSCRIBE >

More Like This
On-Board SOH Estimation Using Quantized Adaptive Dual Extended Kalman Filter in Resource Constraint Battery Management Systems
2025 Annual Reliability and Maintainability Symposium (RAMS)
Published: 2025

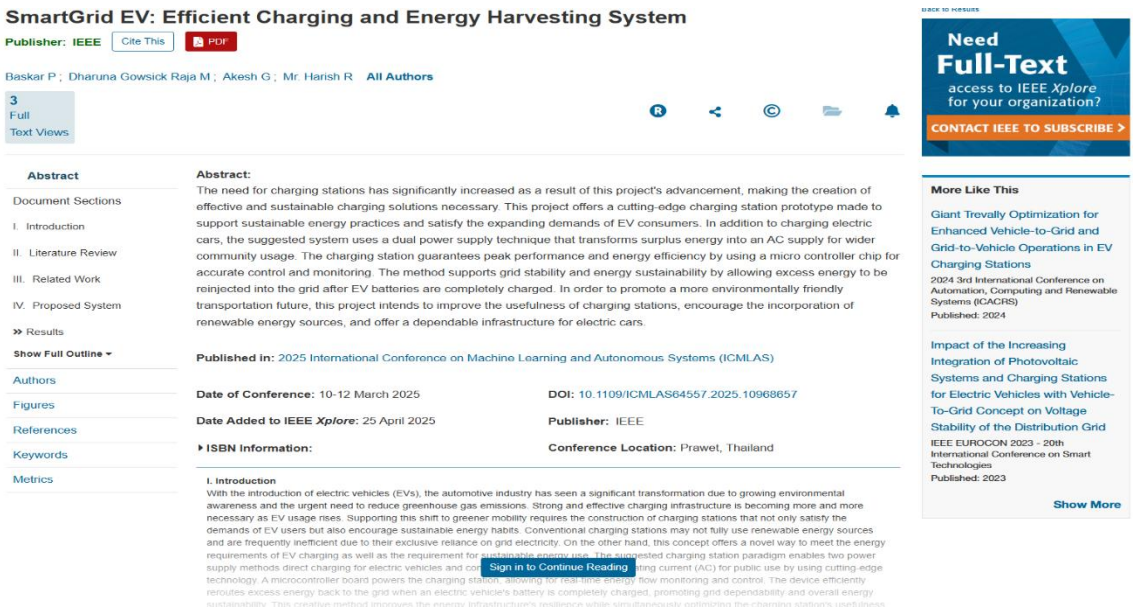
A Review of Techniques for State of Charge and State of Health Estimation in Battery Management Systems
2023 IEEE 21st Student Conference on Research and Development (SCOReD)
Published: 2023

Show More

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION

Mr Harish R, Asst. Professor and the Students of B.E. EEE, published a research article on **"Smartgrid EV: Efficient Charging and Energy Harvesting System"** in IEEE Xplore (ICMLAS-2025), organized by International Conference on Machine Learning and Autonomous Systems, Prawet, Thailand during 10-11 March 2025.



SmartGrid EV: Efficient Charging and Energy Harvesting System

Publisher: IEEE | Cite This | PDF

Baskar P ; Dharuna Gowsick Raja M ; Akesh G ; Mr. Harish R All Authors

3 Full Text Views

Abstract
Document Sections
I. Introduction
II. Literature Review
III. Related Work
IV. Proposed System
» Results
Show Full Outline
Authors
Figures
References
Keywords
Metrics

Abstract:
The need for charging stations has significantly increased as a result of this project's advancement, making the creation of effective and sustainable charging solutions necessary. This project offers a cutting-edge charging station prototype made to support sustainable energy practices and satisfy the expanding demands of EV consumers. In addition to charging electric cars, the suggested system uses a dual power supply technique that transforms surplus energy into an AC supply for wider community usage. The charging station guarantees peak performance and energy efficiency by using a micro controller chip for accurate control and monitoring. The method supports grid stability and energy sustainability by allowing excess energy to be reinjected into the grid after EV batteries are completely charged. In order to promote a more environmentally friendly transportation future, this project intends to improve the usefulness of charging stations, encourage the incorporation of renewable energy sources, and offer a dependable infrastructure for electric cars.

Published in: 2025 International Conference on Machine Learning and Autonomous Systems (ICMLAS)

Date of Conference: 10-12 March 2025
DOI: 10.1109/ICMLAS64557.2025.10968657
Date Added to IEEE Xplore: 25 April 2025
Publisher: IEEE
ISBN Information:
Conference Location: Prawet, Thailand

I. Introduction
With the introduction of electric vehicles (EVs), the automotive industry has seen a significant transformation due to growing environmental awareness and the urgent need to reduce greenhouse gas emissions. Strong and effective charging infrastructure is becoming more and more necessary as EV usage rises. Supporting this shift to greener mobility requires the construction of charging stations that not only satisfy the demands of EV users but also encourage sustainable energy habits. Conventional charging stations may not fully use renewable energy sources and are frequently inefficient due to their exclusive reliance on grid electricity. On the other hand, this concept offers a novel way to meet the energy requirements of EV charging as well as the requirement for sustainable energy use. The suggested charging station paradigm enables two power supply methods direct charging for electric vehicles and con ting current (AC) for public use by using cutting-edge technology. A microcontroller board powers the charging station, allowing for real-time energy flow monitoring and control. The device efficiently reroutes excess energy back to the grid when an electric vehicle's battery is completely charged, promoting grid dependability and overall energy

Sign in to Continue Reading

Need Full-Text access to IEEE Xplore for your organization?
CONTACT IEEE TO SUBSCRIBE >

More Like This

Giant Trevally Optimization for Enhanced Vehicle-to-Grid and Grid-to-Vehicle Operations in EV Charging Stations
2024 3rd International Conference on Automation, Computing and Renewable Systems (ICACRS)
Published: 2024

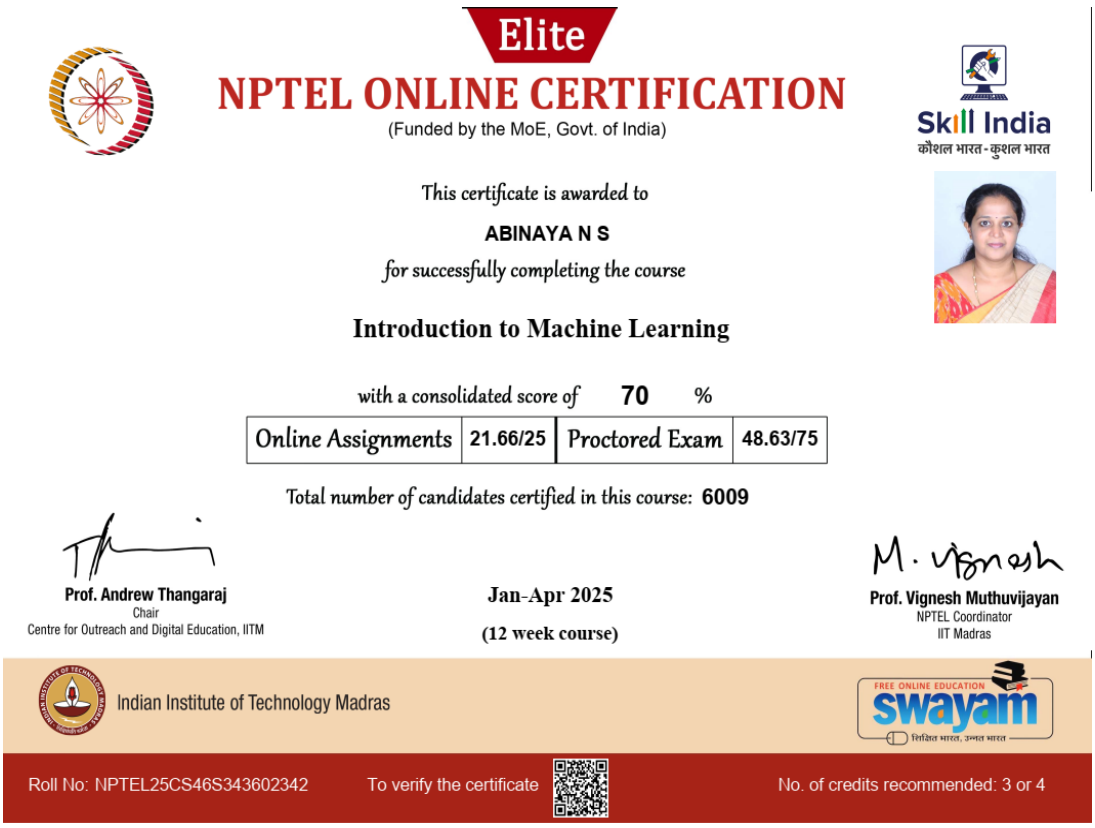
Impact of the Increasing Integration of Photovoltaic Systems and Charging Stations for Electric Vehicles with Vehicle-To-Grid Concept on Voltage Stability of the Distribution Grid
IEEE EUROCON 2023 - 20th International Conference on Smart Technologies
Published: 2023

Show More

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY CERTIFICATION

Dr Abinaya N S, Asst. Professor, successfully completed an online certification course on **"Introduction to Machine Learning"** with **Elite** through NPTEL.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

ABINAYA N S

for successfully completing the course

Introduction to Machine Learning

with a consolidated score of **70** %

Online Assignments	21.66/25	Proctored Exam	48.63/75

Total number of candidates certified in this course: **6009**

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jan-Apr 2025
(12 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

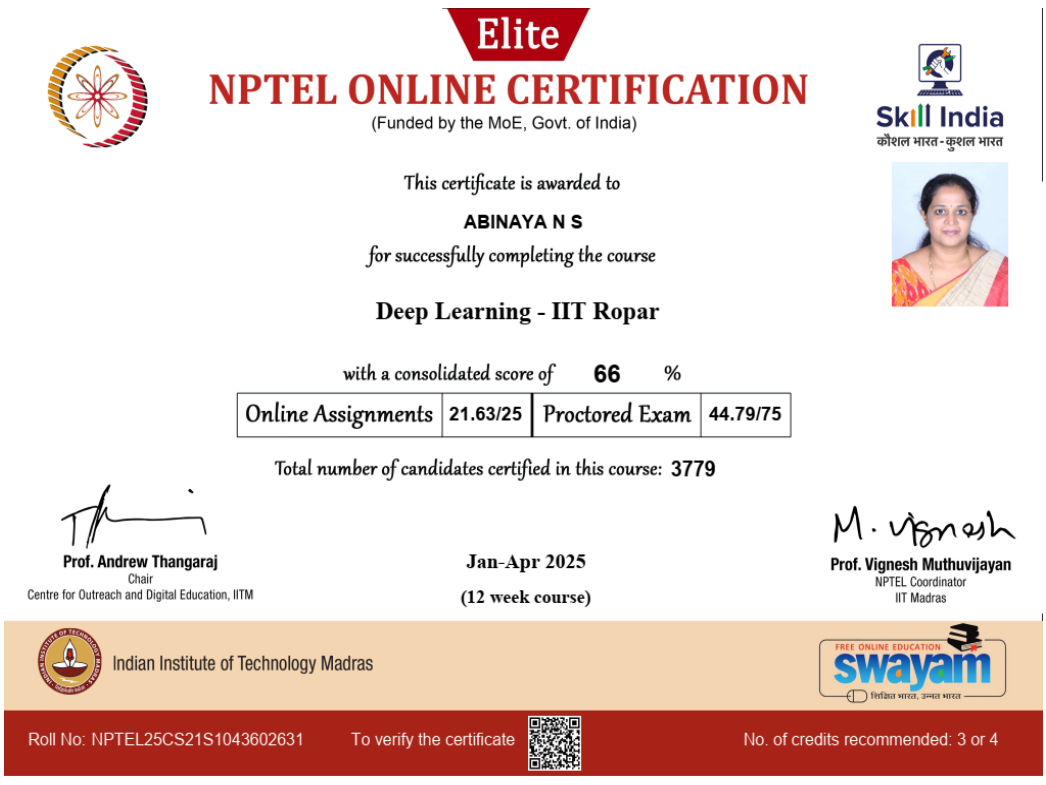
FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

Roll No: NPTEL25CS46S343602342 To verify the certificate No. of credits recommended: 3 or 4

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY CERTIFICATION

Dr Abinaya N S, Asst. Professor, successfully completed an online certification course on **"Deep Learning"** with **Elite** through NPTEL.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

ABINAYA N S

for successfully completing the course

Deep Learning - IIT Ropar

with a consolidated score of 66 %

Online Assignments	21.63/25	Proctored Exam	44.79/75

Total number of candidates certified in this course: 3779

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jan-Apr 2025
(12 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

FREE ONLINE EDUCATION swayam

Roll No: NPTEL25CS21S1043602631 To verify the certificate No. of credits recommended: 3 or 4

ELECTRICAL AND ELECTRONICS ENGINEERING

STUDENTS' PARTICIPATION

Mr Sri Hari Durgas B, Mr Sibi Surya M, Mr Sri Lingeswaran M and **Mr Sukesh S A**, Students of Third B.E. EEE, successfully completed **Inplant Training** at **Bharat Heavy Electricals Limited (BHEL),** Tiruchirappalli during 03-13 May 2025.

MECHANICAL ENGINEERING

FACULTY PUBLICATION

Mr Senthil Kumar K, Asst. Professor, published a research article on **"Experimental investigation to enhance the energy efficiency of a solar-powered Visi cooler"** in Scientific Reports (Q1 journal, Impact Factor: 3.8).

www.nature.com/scientificreports

scientific reports

Check for updates

OPEN

Experimental investigation to enhancing the energy efficiency of a solar-powered Visi cooler

K. Senthil Kumar[1✉], R. Vasanthi[2], Mustafa Shakir[3,4], Arunkumar Munimathan[5✉], A. S. Manirathnam[6], Mohammad Mukhtar Alam[7,8], Parvathy Rajendran[9✉] & It Ee Lee[10✉]

Refrigeration methods in secluded regions are a major issue for sustaining the quality of perishables like vaccines and food. Traditional refrigeration systems, including kerosene and gas-powered units, often suffer from interruptions in the supply of fuel. Additionally, they do not satisfy the stringent criteria set by the World Health Organization (WHO) Performance, Quality and Safety (PQS) system requirements. While solar-powered refrigeration is an alternative, existing systems heavily rely on battery storage, which increases maintenance, costs, and limits system lifespan. This study analyses the operational efficiency of a solar-powered VISI cooler with a DC compressor-based refrigeration system, adding and omitting phase change materials (PCM). The experimental findings demonstrate that incorporating PCM significantly enhances energy efficiency by reducing average power consumption from 48 to 40 W. This decreased power consumption increases suction pressure by 0.13 bar and decreases compressor output pressure by 0.76 bar. These improvements aid in optimised thermal regulation which lowers dependency on conventional energy storage methods. The research indicates the role of collaborative partnerships between governments, research bodies, and technology developers aimed at fostering sustainable and innovative peak-shaving refrigeration solutions geared towards off-grid systems.

Keywords DC compressor, Solar panel, Energy, Efficiency, PCM

SCIENCE AND HUMANITIES

FACULTY PARTICIPATION

Dr N Nalini, Asst. Professor, received the **"Excellence in Education Award 2025"** for exemplary service in the field of education.

MASTERS PROFESSIONAL ACADEMY
(Your Trusted CA & CMA Coaching Institute) Coimbatore

EXCELLENCE IN EDUCATION AWARD 2025

Presented to
Dr N.NALINI M.SC., M PHIL Ph.D.,
ASSOCIATE PROFESSOR
SRI KRISHNA COLLEGE OF TECHNOLOGY

In proud recognition of your **exemplary service in the field of education** and your enduring impact on students' academic and personal growth. Your passion, leadership, and dedication embody the true spirit of teaching excellence.

Excellence in Education Award 2025
Presented on **11th May 2025**
at Masters Professional Academy, Coimbatore

With gratitude and respect,

Dr. KANNAN NATARAJAN
Founder, Masters Professional Academy

SCIENCE AND HUMANITIES

FACULTY PARTICIPATION

Dr B Kogilavani and **Ms P Jinsha,** Asst. Professors, attended the Faculty Development Programme on **"Online NEP 2020 Orientation & Sensitization Programme"** and **secured Grade "A"** under Malaviya Mission Teacher Training Programme (MM-TTP), organized by MMTTC, Osmania University, Hyderabad, during 08-17 May 2025.


MALAVIYA MISSI
TEACHER
TRAINING PROGI
OSMANIA UNIVERSITY
(NAAC With A+)
HYDERABAD, TELANGANA STATE
Certificate of Participation
NEP 2020 Orientation & Sensitizatio
This is to certify that
Mrs. B Kogilavani
Assistant Professor, Department of English, Sri Krishna College Of Technology, Coi
"Online NEP 2020 Orientation & Sensitization Programme" under Malaviya
(MM-TTP) of University Grants Commission (UGC) organized by MMTTC, Osm
from 08.05.2025 to 17.05.2025 and obtained grade "A".
Prof. P. Vijay Kumar
Director


MALAVIYA MISSION
TEACHER
TRAINING PROGRAMME
OSMANIA UNIVERSITY
(NAAC With A+)
HYDERABAD, TELANGANA STATE
Certificate of Participation
NEP 2020 Orientation & Sensitization Programme
This is to certify that
Ms. Jinsha P
Assistant Professor, Department of Science and Humanities, Sri Krishna College of Technology, Coimbatore, Tamilnadu has participated in "Online NEP 2020 Orientation & Sensitization Programme" under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by MMTTC, Osmania University, Hyderabad, Telangana from 08.05.2025 to 17.05.2025 and obtained grade "A"
Prof. P. Vijay Kumar
Director

SCIENCE AND HUMANITIES

FACULTY ACHIEVEMENTS

Dr K R Kanimozhi, Assoc. Professor and **Dr N Nalini**, Asst. Professor, participated in an international online seminar on **"High Energy Materials, Energy Storage and Biofuel"** organized by Amity University on 16 May 2025.

AMITY UNIVERSITY
MADHYA PRADESH

INSTITUTION'S INNOVATION COUNCIL
(Ministry of HRD Initiative)

CERTIFICATE OF PARTICIPATION

13 CLIMATE ACTION

7 AFFORDABLE AND CLEAN ENERGY

This is to certify that

Dr K R Kanimozhi

Anna University

has successfully participated in the

INTERNATIONAL ONLINE SEMINAR on

HIGH ENERGY MATERIALS, ENERGY STORAGE & BIOFUELS

organized by the Department of Applied Chemistry, aligned with UN Sustainable Development Goals 7 & 13

Date: May 16, 2025
Duration: 4 Hours (1:00 PM - 5:00 PM IST)

This seminar provided comprehensive insights into innovative developments in sustainable energy technologies, exploring advancements in high energy materials, next-generation energy storage solutions, and emerging biofuel applications contributing to global climate action.

Prof. Dr. Kuldeep Singh
HoD - Applied Chemistry

Prof. Dr. Vikas Thada
Director - Amity School of Engg & Tech

Certificate ID : AUMP/ASET/20250516283

amity.edu/gwalior

AMITY UNIVERSITY
MADHYA PRADESH

INSTITUTION'S INNOVATION COUNCIL
(Ministry of HRD Initiative)

CERTIFICATE OF PARTICIPATION

13 CLIMATE ACTION

7 AFFORDABLE AND CLEAN ENERGY

This is to certify that

Dr.N.Nalini

Sri Krishna College of Technology

has successfully participated in the

INTERNATIONAL ONLINE SEMINAR on

HIGH ENERGY MATERIALS, ENERGY STORAGE & BIOFUELS

organized by the Department of Applied Chemistry, aligned with UN Sustainable Development Goals 7 & 13

Date: May 16, 2025
Duration: 4 Hours (1:00 PM - 5:00 PM IST)

This seminar provided comprehensive insights into innovative developments in sustainable energy technologies, exploring advancements in high energy materials, next-generation energy storage solutions, and emerging biofuel applications contributing to global climate action.

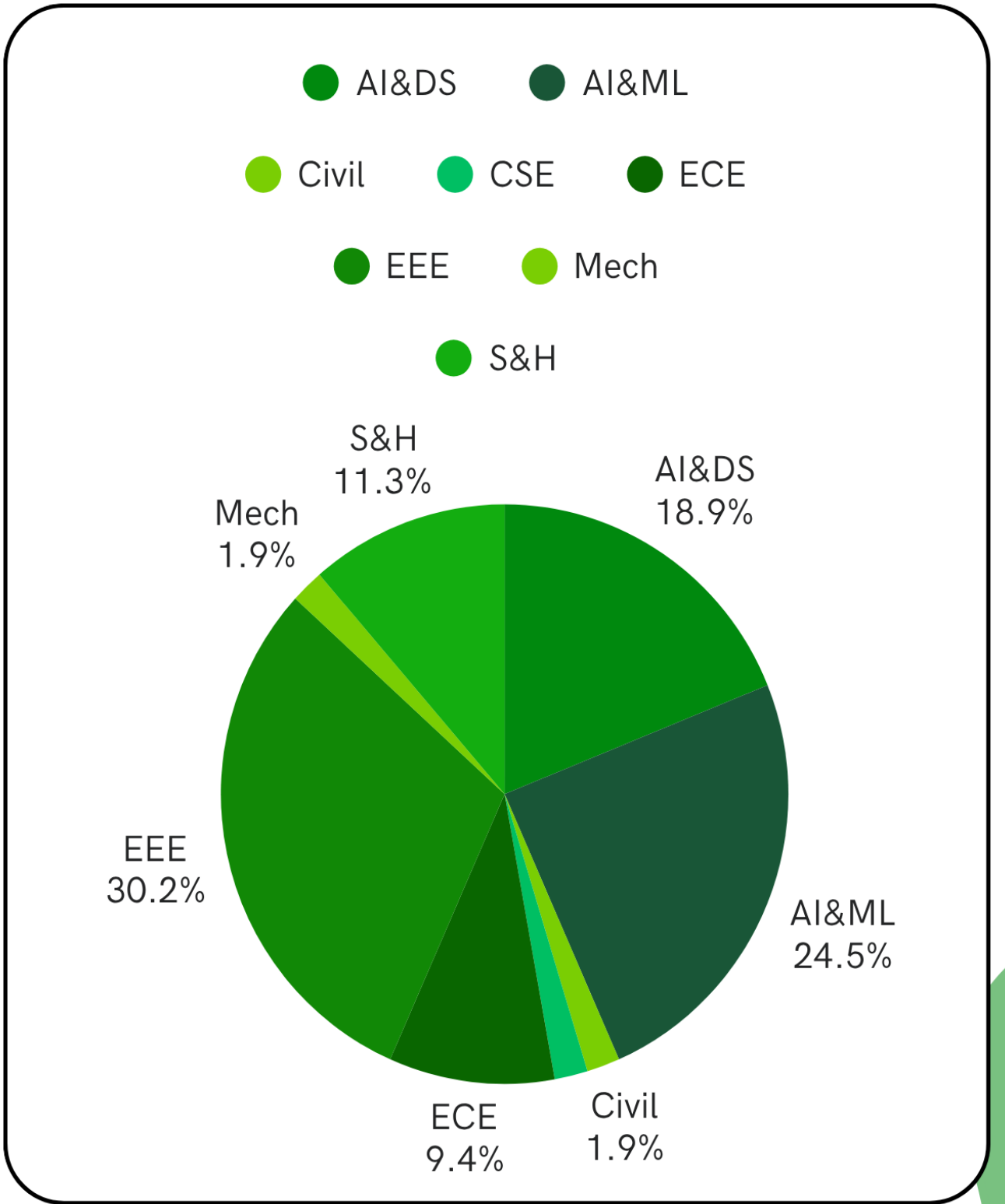
Prof. Dr. Kuldeep Singh
HoD - Applied Chemistry

Prof. Dr. Vikas Thada
Director - Amity School of Engg & Tech

Certificate ID : AUMP/ASET/20250516050

amity.edu/gwalior

CONTENT CONRIBUTIONS BY THE DEPARTMENTS



SKCT supports the Sustainable Development Goals

CHIEF EDITOR

Dr M G Sumithra
Principal

DESIGN & CONTENT EDITORS

Mr M K Prabhu
Assistant Professor
Mechanical Engineering

Ms B Pavithra
Assistant Professor
English

DEPARTMENT COORDINATORS

- Ms P Deepa, AP/ADS
- Ms S Priyadharsini AP/IoT
- Ms A Gomathy, AP/CSE
- Ms K Mythili, AP/IT
- Mr K M Manoj, AP/Civil
- Mr G Santhakumar, AP/ECE
- Mr Ajith B Singh, AP/EEE
- Mr K Senthil Kumar, AP/Mech
- Ms S Jaya Preethi, AP/MBA
- Dr B Kogilavani, AP/English

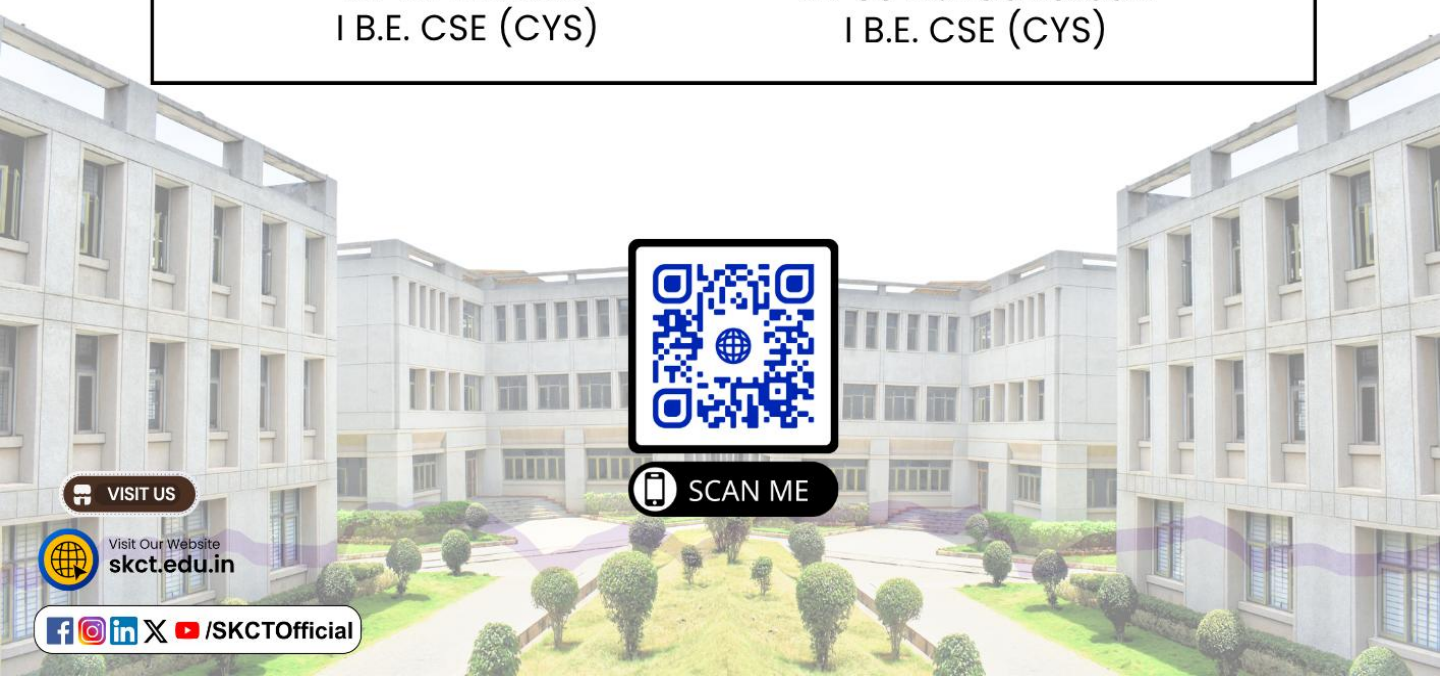
STUDENT EDITORS

Mr Mathan Raj S
I B.E. CSE (CYS)

Ms Aparna Sulochana N
I B.Tech. (ADS)

Mr ST Francis
I B.E. CSE (CYS)

Mr SS Devadharsan
I B.E. CSE (CYS)



SCAN ME

VISIT US

Visit Our Website
skct.edu.in

/SKCTOfficial