



**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 19
MAY 04 - MAY 10, 2025**



SKCT

DIGEST

THE PRIDE OF OUR REFLECTION

ISBN NUMBER



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Doubt kills more dreams than failure
ever will.

-Suzy Kassem

Contact Us

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Kovaipudur,



Coimbatore - 641 042.

CIVIL ENGINEERING

STUDENT ACHIEVEMENTS



Ms Miduna Sre Kumar and Ms Nivedha, Students of First Year B.E. Civil Engineering, participated in "Skill Development Training Programme on Corrosion Protection Technologies for Construction of Buildings and Structures" at Rural Training Centre, Karaikudi, organized by CSIR-CECRI.



CIVIL ENGINEERING

FACULTY PARTICIPATIONS



Dr Muthukumar R and **Dr Deepa S**, Assoc. Professors, Attended a one-week professional development program (PDP) on "**GIS Applications in Smart City Development**", organized in association with NITTTR at SKCET.



CIVIL ENGINEERING

ALUMNI ACHIEVEMENTS



Mr Kishore, Alumnus of 2016–2020 batch B.E Civil Engineering, Cleared the **TNPSC examination** and secured the post of **Assistant Engineer in Water Resources Department**.

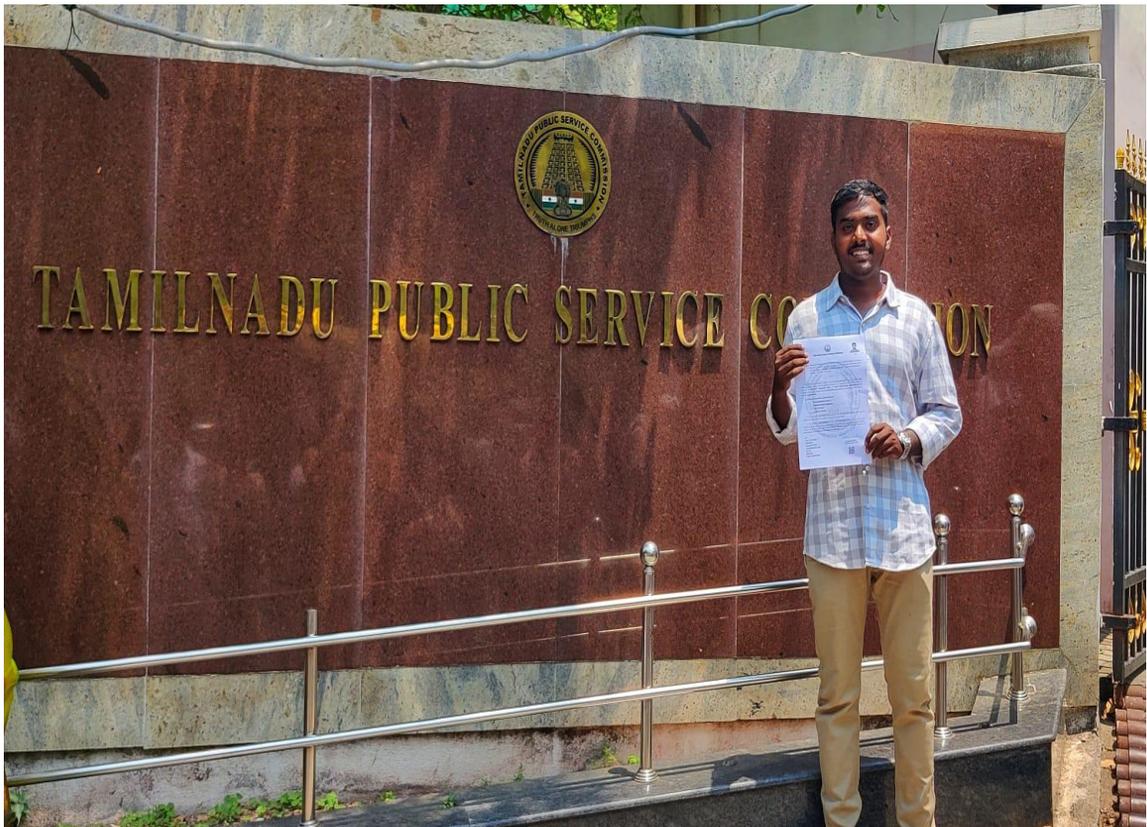


CIVIL ENGINEERING

ALUMNI ACHIEVEMENTS



Mr Kishore S, Alumnus of 2018-2022 batch B.E Civil Engineering, Cleared the **TNPSC examination** and joined as **Assistant Engineer in Water Resources Department**.



COMPUTER SCIENCE AND ENGINEERING

FACULTY PARTICIPATION



Ms A Gomathy, Asst. Professor, and her student team presented a paper on "**A Hybrid AI Framework for Road Accident Identification and Insurance Cost Prediction**" at the **Fifth International Conference on Artificial Intelligence and Smart Computing (ICAISC'25)**, organized by **Bannari Amman Institute of Technology, Erode.**





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SUSTAINABLE DEVELOPMENT GOALS



NAAC ACCREDITED



NATIONAL BOARD OF ACCREDITATION CSE | CIVIL | EEE | ECE MCH | IT



Band 151-200 Engineering 2024



INSTITUTION'S INNOVATION COUNCIL

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY CERTIFICATION

Dr P Rajasekar, Professor, Successfully completed a 12-week course on "Quantum Algorithms and Cryptography" with Elite + Silver certification through NPTEL.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)





This certificate is awarded to
RAJASEKAR P
for successfully completing the course

Quantum Algorithms and Cryptography

with a consolidated score of **80** %

Online Assignments	23/25	Proctored Exam	57.25/75
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Total number of candidates certified in this course: **240**



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
विश्वविद्यालय - स्वयं भारत

Roll No: NPTEL25CS61S643600895

To verify the certificate 

No. of credits recommended: 3 or 4



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MECH | IT



Band 151-200
Engineering 2024



INSTITUTION'S INNOVATION COUNCIL
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ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY CERTIFICATION



Ms M Sathia Priya, Asst. Professor, Successfully completed an 8-week NPTEL course on "Foundation of Cloud IoT Edge ML" with Elite Certification.



Elite NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



कौशल भारत - कुशल भारत

This certificate is awarded to

SATHIA PRIYA M

for successfully completing the course

Foundation of Cloud IoT Edge ML

with a consolidated score of **73** %

Online Assignments	23.75/25	Proctored Exam	49.5/75
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Total number of candidates certified in this course: **7371**

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

Feb-Apr 2025

(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur



Indian Institute of Technology Kanpur



FREE ONLINE EDUCATION

शिक्षण भारत, ज्ञान भारत

Roll No: NPTEL25CS75S443601075

To verify the certificate



No. of credits recommended: 2 or 3

ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PARTICIPATION



Dr M Thillai Rani, Assoc. Professor, Presented a paper on “**Diabetic Socks for Foot Ulcer Prediction and Monitoring**” at the **3rd IEEE International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA 2025)** organized by Kumaraguru College of Technology, Coimbatore, from 4–5 April 2025.



ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PARTICIPATION



Dr K Muthulakshmi, Professor and Head (i/c), Successfully completed a Faculty Development Program on "**The Foundations and Future of Quantum**" Computing organized by Sri Sairam College of Engineering, Chennai, from 5–9 May 2025.





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Study of Education Initiatives
★★★★★

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ELECTRONICS AND COMMUNICATION ENGINEERING

FACULTY PARTICIPATION



Dr S Nithyadevi, Assoc. Professor, Successfully completed a Faculty Development Program on "**The Foundations and Future of Quantum Computing**" organized by Sri Sairam College of Engineering, Chennai, from 5–9 May 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Dr Magdalin Mary D, Asst. Professor, along with Students of final year B.E EEE, Published a research article on “**Solar-Powered Wheelchair with CNN-Based Gesture Control and Home Automation**” in the *International Research Journal on Advanced Engineering Hub (IRJAEH)*, Volume 03, Issue 04, pages 1348–1354, April 2025.



International Research Journal on Advanced Engineering Hub (IRJAEH)
e-ISSN: 2584-21...
Vol. 03 Issue: 04 April 2025
Page No: 1348-1354
<https://doi.org/10.47392/IRJAEH.2025.0392>

Solar-Powered Wheelchair with CNN-Based Gesture Control and Home Automation

Aswath A R¹, Anishba M², Mohammod Kaif R³, Magdalin Mary D⁴
^{1,2}Dept of EEE, Sri Krishna College of Technology Coimbatore, India.
⁴Assistant Professor, Dept of EEE, Sri Krishna College of Technology Coimbatore, India.
Emails: 727821nee008@skct.edu.in¹, 727821nee054@skct.edu.in², 727821nee051@skct.edu.in³, magdalinmary.d@skct.edu.in⁴

Abstract
This project is a groundbreaking advancement in assistive technology, specifically in the development of smart, solar-powered wheelchairs that enhance mobility, independence, and user comfort. By integrating cutting-edge technologies such as Convolutional Neural Networks (CNNs) for gesture control and smart home automation, this wheelchair surpasses conventional models, allowing seamless interaction with the surrounding environment. The core innovation lies in its gesture control interface, enabling users to maneuver the wheelchair effortlessly with or without head movement. CNNs play a crucial role in detecting and classifying gestures in real time through image and video processing, ensuring high responsiveness, accuracy, and reliability for an intuitive user experience. Additionally, the wheelchair incorporates home automation, allowing users to control essential devices like lights, fans, and smart locks directly from their seats, thereby reducing dependency on external assistance and enhancing personal independence. Furthermore, its reliance on solar power makes it an environmentally sustainable solution, minimizing energy consumption and promoting eco-friendliness. By combining advanced CNN-based gesture control, smart home automation, and solar energy, this innovative wheelchair not only enhances the quality of life for individuals with disabilities but also contributes to a more sustainable and inclusive future, empowering users with greater autonomy and ease in daily activities.

Keywords: Solar powered wheelchair, Convolutional Neural Network (CNN), Home automation, Gesture control.

1. Introduction
This project marks a significant advancement in the design of assistive devices, particularly wheelchairs, by integrating multiple cutting-edge technologies to enhance mobility and user convenience. The smart, solar-powered wheelchair stands out from conventional models, incorporating gesture-based controls powered by Convolutional Neural Networks (CNNs) for smart home automation. This innovation not only improves mobility but also enhances users' interaction with their physical environment. The key highlight of this design is its gesture control system, which enables users to navigate the wheelchair effortlessly using simple hand or head gestures. CNNs process real-time images and videos to detect

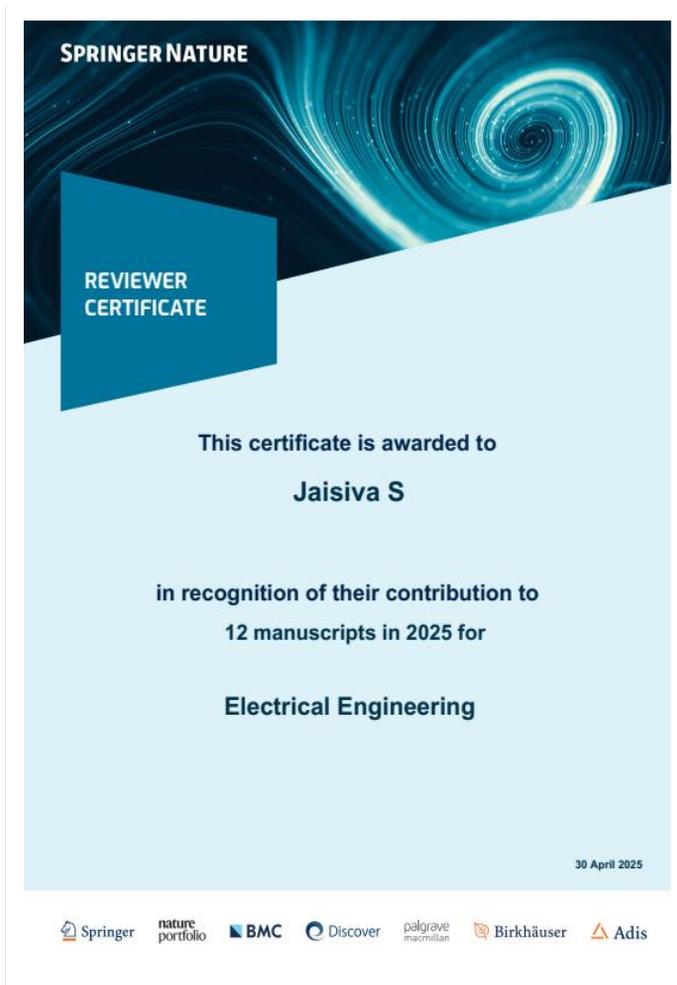
and classify gestures accurately, ensuring a highly responsive and reliable interface that caters to individuals with limited physical mobility. Additionally, the wheelchair features home automation, allowing users to control various devices such as lights, fans, and smart locks while remaining seated, thereby minimizing dependence on external assistance and promoting independence in daily activities. Its solar-powered system makes it both eco-friendly and sustainable. By integrating advanced CNN-based gesture controls, smart home automation, and solar energy, this wheelchair becomes a groundbreaking product designed to improve the quality of life for individuals with disabilities. This

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY ACHIEVEMENT



Dr Jaisiva S, Asst. Professor, Received a **Certificate of Appreciation** for reviewing **12 research articles** in the journal "***Electrical Engineering***" on 30 April 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

STUDENT PARTICIPATION



Students of First Year B.E EEE Actively participated in **AICTE Activity Point events at Schools and Parks** to promote **water and energy conservation awareness** on 29 April 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Dr Jaisiva S, Asst. Professor, along with students of Final year B.E.ICE , Published a research article on **“Design of Wireless Power Transfer Mechanism with Electromagnetic Exposure for EV Applications”** at the **Second International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025)** organized by CMR Institute of Technology, Bengaluru, from 01 - 02 May 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Dr Jaisiva S, Asst. Professor, along with Students of Final Year B.E EEE, Published a research article on **“Artificial Intelligence Based Hybrid EV Assistive System for Fuel and Electric Switching”** at the **2nd International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025)** organized by CMR Institute of Technology, Bengaluru, from 01-02 May 2025.



CMR INSTITUTE OF TECHNOLOGY
#132, AECS Layout, ITPL Main Road, Kundalahalli, Bengaluru-560 037

Certificate of Participation

This is to certify that

DINESH KUMAR M

has presented a paper entitled **“ARTIFICIAL INTELLIGENCE BASED HYBRID EV ASSISTIVE SYSTEM FOR FUEL AND ELECTRIC SWITCHING”** in

Second International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025) hosted by the Department of Electronics and Communications Engineering, CMR Institute of Technology, Bengaluru during 1st and 2nd May 2025.


General Chair, ICECCC 2025


Principal, CMRIT



CMR INSTITUTE OF TECHNOLOGY
#132, AECS Layout, ITPL Main Road, Kundalahalli, Bengaluru-560 037

Certificate of Participation

This is to certify that

DIVESH KARTHIK M

has presented a paper entitled **“ARTIFICIAL INTELLIGENCE BASED HYBRID EV ASSISTIVE SYSTEM FOR FUEL AND ELECTRIC SWITCHING”** in

Second International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025) hosted by the Department of Electronics and Communications Engineering, CMR Institute of Technology, Bengaluru during 1st and 2nd May 2025.


General Chair, ICECCC 2025


Principal, CMRIT

ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Dr Jaisiva S, Asst. Professor, along with Students of Final year B.E.EEE and Final year B.E.ICE, Published a research article on **“Underwater Optical Wireless Communication System with Internet of Underwater Topologies”** at the **2nd International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025)** organized by CMR Institute of Technology, Bengaluru, from 01-02 May 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Dr Jaisiva S, Asst. Professor, along with students of Final year B.E EEE and Final year B.E.ICE , Published a research article on **“Underwater Optical Wireless Communication System with Internet of Underwater Topologies”** at the **2nd International Conference on Electronics, Communication, Computing and Control Technology (ICECCC 2025)** organized by CMR Institute of Technology, Bengaluru, from 01-02 May 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY PUBLICATION



Mr Harish R, Asst. Professor, 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)”** at the **8th International Conference on Inventive Computation Technologies (ICICT-2025)**, organized by Tribhuvan University, Nepal, from 23-25 April 2025.



ELECTRICAL AND ELECTRONICS ENGINEERING

FACULTY CERTIFICATION



Mr Bharaniprakash T, Asst.Professor, Successfully completed the online course "**Python for Data Science and AI**" on Coursera on 30 April 2025.

In recognition of the commitment to achieve professional excellence



Mr. T. Bharani Prakash Asst Prof EEE

Has successfully satisfied the requirements for:

Python for Data Science and AI



Issued on: Apr 30, 2025

Issued by: Coursera

Verify: <https://www.credly.com/badges/162967be-2314-49d8-aaf2-4a65e8b32711>



INFORMATION TECHNOLOGY

STUDENT PLACEMENT



Mr Dhayananth K M and Mr Mahudesh M, Students of Final B.Tech IT, Received placement offers from iamNeo as Full Stack Developers.



Mr. MAHUDESH M



Mr. DHAYANANTH K M



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COUNCIL
Study of Education Industry
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INFORMATION TECHNOLOGY

STUDENT PLACEMENT



Ms Nandhini J K, Mr Pragadeeshwaran S, Ms Priyadharshini M, Mr Pratheesh S, Mr Vinish K A, Ms Dhivydharsini R, and Mr Ranjith T, Students of 2021-2025 batch, Received placement offers from Capgemini.

INFORMATION TECHNOLOGY

STUDENTS' PARTICIPATION



Ms Nandhini Ravindran, Ms Trishla B, and Mr Vasantha Kumar S, Students of Final year B.Tech IT, presented a paper on “**Cognitive Flux Detection and Adaptive Emotional Modulation**” at **ICAECA-2025** organized by Kumaraguru College of Technology, Coimbatore.



MECHANICAL ENGINEERING

FACULTY PARTICIPATION



Dr Sundararaj, Assoc. Professor, Participated in the "One Day Awareness Workshop on Intellectual Property Rights 2025" at Anna University, Chennai.



SCIENCE AND HUMANITIES

FACULTY PARTICIPATION

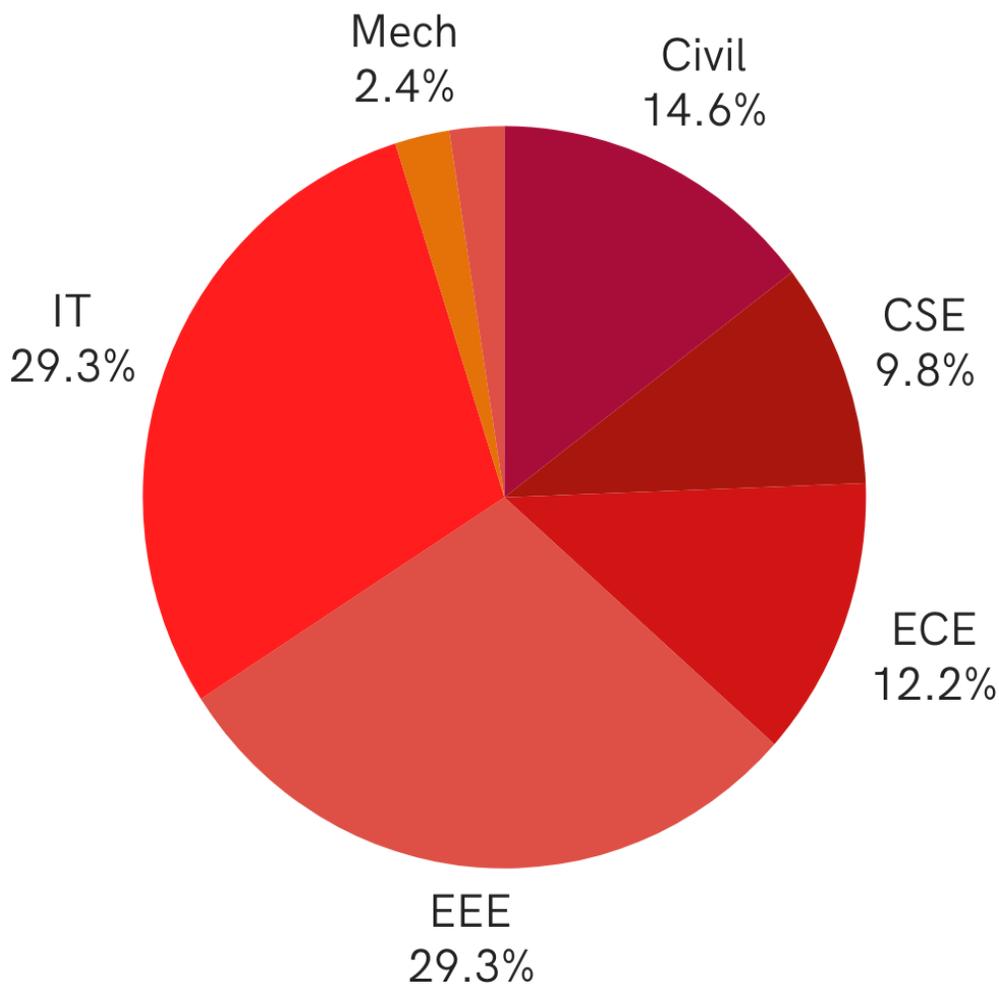


Faculty Members Of Department of Science and Humanities (Mathematics), Attended a 3-day "Faculty Training Program on Python Programming" at SKCET from 5–7 May 2025.



CONTENT CONTRIBUTIONS BY THE DEPARTMENTS

- Civil
- CSE
- ECE
- EEE
- IT
- Mech
- S&H



CHIEF EDITOR

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Principal

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Assistant Professor
Mechanical Engineering

Ms B Pavithra
Assistant Professor
English

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- Ms A Gomathy, AP/CSE
- Ms K Mythili, AP/IT
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- 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 SS Devadharsan
I B.E. CSE (CYS)

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

Mr R Yashwanthraja
III B.E. Mechanical Engineering

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



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