

**SKCET**

**Buzz**



27<sup>th</sup> April - 03<sup>rd</sup> May 2024



**Editor-in-Chief**

**Dr.S.Sophia**

**Principal Incharge**

**Co-Editor**

**Dr.S.Venkata Lakshmi - AI & DS**

**Editorial Team**

**Mr.M.Diwakaran - IT,**

**Mr.G.S.Pugalendhi - AI & DS,**

**Mrs.S.Mary Fabiola - S&H,**

**Mr.J.Dhiyaneswaran - MECH**

## INSIDE THIS ISSUE

- ❖ **INSTITUTIONAL EVENTS** : PG 03 - 04
- ❖ **STUDENTS PROGRESSION** : PG 05 - 14
- ❖ **STUDENTS CERTIFICATION** : PG 15 - 21
- ❖ **EVENTS** : PG 22 - 32
- ❖ **PLACEMENT AND TRAINING** : PG 33 - 36
- ❖ **RESEARCH AND DEVELOPMENT** : PG 37 - 41
- ❖ **FACULTY CERTIFICATIONS** : PG 42 - 47
- ❖ **CONFERENCE PRESENTATION** : PG 48 - 50
- ❖ **ALUMNI CORNER** : PG 51 - 53
- ❖ **CREATIVE CORNER** : PG 54 - 58



# INSTITUTIONAL EVENTS



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## MECH | AUTODESK AND ICT ACADEMY TEAM VISIT



Autodesk's Educational Account Manager **Mr. Anand Pujar** and **ICT Academy** team interacted with **Dr. S. Sophia**, Principal Incharge and Heads of **Mechanical, Mechatronics** and **Civil Engineering** departments on April 30<sup>th</sup>, 2024 to discuss about the integration of advanced Autodesk software like Fusion 360 into the curriculum and also expressed interest in collaborating on technical events such as symposiums, workshops for students and Faculty Development Programs.



# STUDENTS PROGRESSION



Follow us

@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## AI&DS | CODE RELAY



**Kanish Yathra Raj R, II - year AI & DS student participated in KALAM 24 event hosted by Sri Shakthi Institute of Engineering Technology and won **First Prize** with **Cash award**.**

**EVENT: TEAM CODING CONTEST**

# M.Tech CSE | SAP PSG I-TECH HACK FEST 2024



Second year student team **Code Crafters** from the Department of **M.Tech CSE** has advanced to the final round among the top 10 teams in the SAP PSG I-TECH HACK FEST 2024 Regional Round held on 25<sup>th</sup> and 26<sup>th</sup> April 2024 organized by CSBS Department, KPRIET College of Engineering and Technology, Coimbatore.

### Team Members:

Jefferson Wesley P - II Year M.Tech CSE

Pratika B - II Year M.Tech CSE

Kamalan CS - II Year M.Tech CSE

Navis Luffina - II Year M.Tech CSE

## CSE | CODE RELAY



Second year student team from the Department of **CSE** has participated in the Code Relay contest conducted as a part of **Kalam 24** event hosted by Sri Shakthi Institute of Engineering Technology and has won **First & Second Prizes** with Cash award.

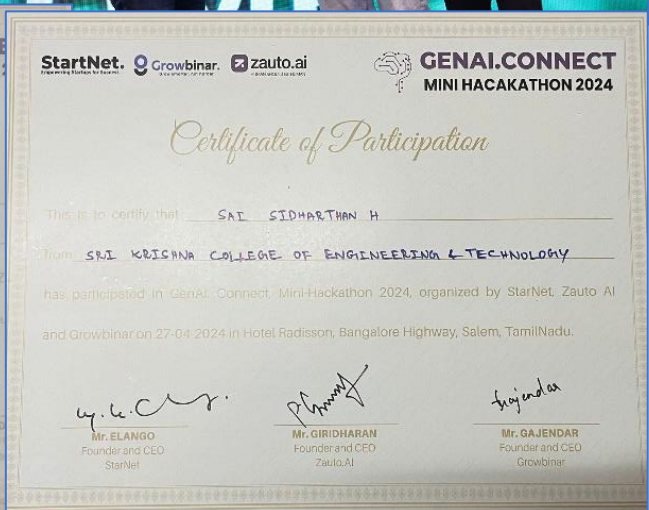
**Team Name:** Team Coding Contest

**Team Members:**

- Sriram R, II CSE C - First Prize
- Rokhithran S, II CSE C - Second Prize



# CSE | GENAI CONNECT MINI-HACKATHON 2024



**H. Sai Sidharthan and R. Sri Manikandan**, students of Second year **CSE C** have participated in GenAI connect, Mini-Hackathon 2024, organized by Startnet, Zauto AI and Growbinar on 27.04.2024 at Hotel Radisson, Bangalore Highway, Salem, Tamilnadu.

## CSE | BUSINESS PLAN COMPETITION - VYAPAAR'24 WINNERS



**Second** year student team from the department of **CSE** have won prizes in the Business Plan Competition - Vyapaar'24 conducted by School of Management, SKCET on 29.04.2024. Students showcased their innovative ideas, entrepreneurial skills and business acumen and won the prizes.

### First prize - II Yr CSE C

- Sri Manikandan R
- Sai Sidharthan H

### Third prize - II Yr CSE B

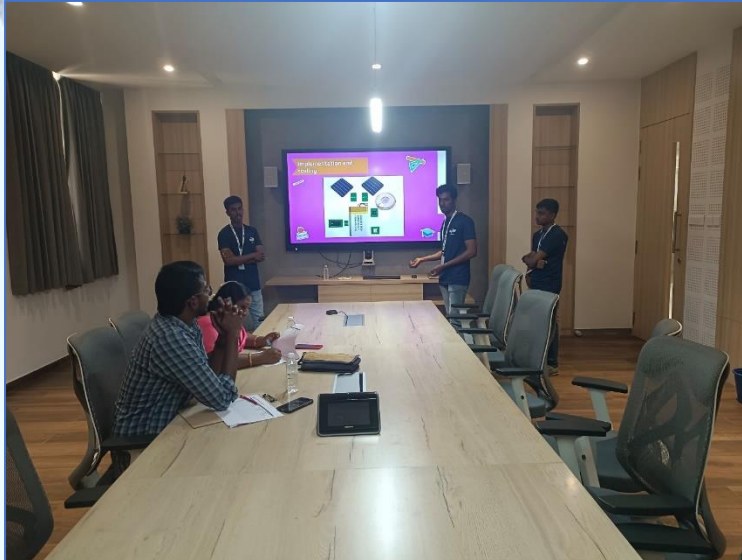
- Nikila B
- Karthick C

# ECE | HACKFEST PARTICIPATION



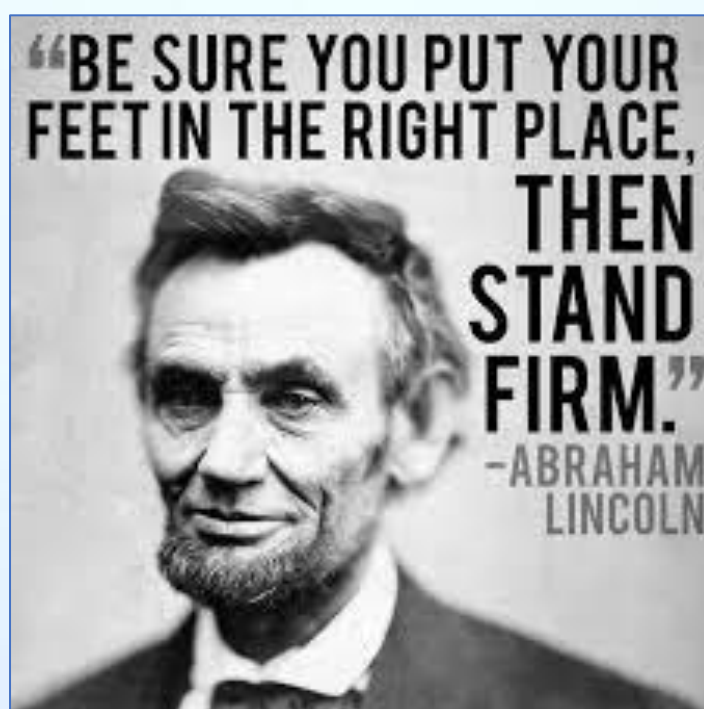
Aathithiyan A S, Guhan A, Harin M and Dhayanidhi L V, students of Second year ECE have participated in HACKFEST '24 - a regional level hackathon conducted by KPR Institute of Engineering and Technology, Coimbatore.

## ECE | STUDENT ACCOLADE



Mr.Haniel Johnson, student of First year ECE A has participated in HACKFEST' 24 held at KPRIET.

## LEGANDARY INSIGHT



# AI&DS | INTERNSHIP @ GUVI



**Logesh S and Vanisri S**, students of **Second year AI & DS** have bagged Internship offers at GUVI. This internship opportunity entails a six-month duration following the conclusion of their Second year of studies. During the Second year, interns will receive a stipend of Rs 6,000/- per month. This is the 1<sup>st</sup> time the students have offered Internship at Guvi.

## MECH | STUDENTS ACHIEVEMENT IN MECHNATRON SYMPOSIUM



Students of **Second year Mechanical Engineering** showcased their prowess at the "Mechnatron" symposium hosted by Coimbatore Institute of Technology on 26th April 2024, leaving a mark of excellence in various events.

Students have secured the following awards in the events.

**Event:** Web Craft  
**Prize:** 1<sup>st</sup> Prize  
**Student Name:** Sanjaysudhan

**Event:** Web Craft  
**Prize:** 2<sup>nd</sup> Prize  
**Student Name:** Sakthivel

**Event:** Coders Crusade  
**Prize:** 3<sup>rd</sup> Prize  
**Student Name:** Raja Gopal.R



# STUDENTS CERTIFICATION



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

# AI&DS | TECHNOHACKS CERTIFICATION

**CERTIFICATE**

This certificate is proudly awarded to  
**Mary Jerushiya A**  
For successfully completing an internship on  
**Data Analytics**  
from **23/03/2024** to **22/04/2024** at **TechnoHacks EduTech**. During this internship, we found him/her consistent and hardworking. We wish all the best for future endeavours.  
**Certificate ID** : TH01080

Founder & CEO  
TechnoHacks EduTech

ESTD 2022

Scan to verify

**CERTIFICATE**

This certificate is proudly awarded to  
**Tharun Kumar M**  
For successfully completing an internship on  
**Data Analytics**  
from **23/03/2024** to **22/04/2024** at **TechnoHacks EduTech**. During this internship, we found him/her consistent and hardworking. We wish all the best for future endeavours.  
**Certificate ID** : TH01079

Founder & CEO  
TechnoHacks EduTech

ESTD 2022

Scan to verify

**Mary Jerushiya A and Tharun Kumar M of First year AI&DS B students have successfully completed their internship on “Data Analytics”, at TechnoHacks EduTech from 23.03.2024 to 22.04.2024.**



# AI&DS | TECHNOHACKS CERTIFICATION



**Sanjay M** of First year **AI&DS B** student has successfully completed his internship on “**Machine Learning**”, at **TechnoHacks EduTech** from 23.03.2024 to 22.04.2024.



**Shibani Shree S** of First year **AI&DS B** student has successfully completed her internship on “**Data Sciences**”, at **TechnoHacks EduTec** from 23.03.2024 to 22.04.2024.

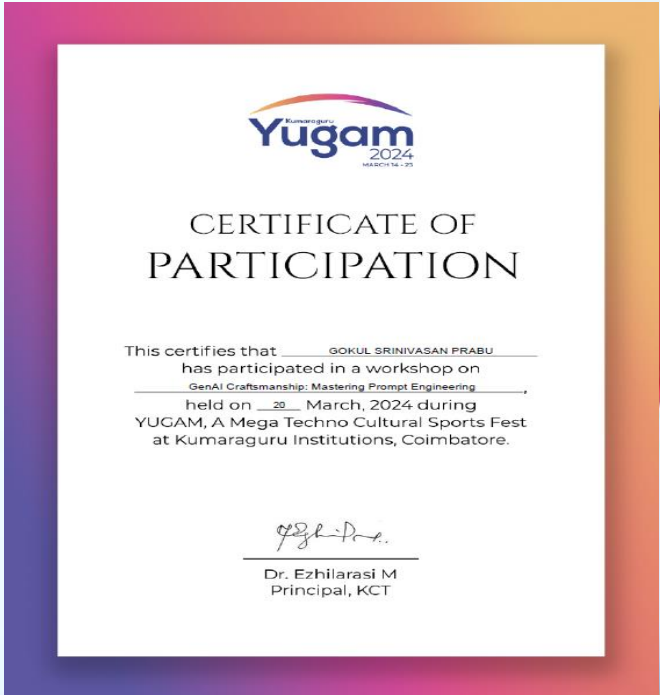
# M.Tech CSE | WIPRO CERTIFICATION PROGRAM



**Dr.A.Pushpalatha**, Associate Professor, Department of **M.Tech Computer Science and Engineering** has successfully completed the advanced technology training program conducted by TalentNext in association with Wipro on AI and ML from 22.4.2024 to 26.4.2024.

# AI&DS | WORKSHOP - GenAI

**Gokul Srinivasan Prabu**, student of **First year AI&DS A** has participated in a workshop **“GenAI Craftsmanship: Mastering Prompt Engineering”**, event hosted by Yugam, Kumaraguru College of Technology on 20.04.2024.



# AI&DS | CODSOFT CERTIFICATION



**Pranesh J S**, student of **First year AI&DS B** student has successfully completed his internship on **“Python Programming”**, at **CODSOFT** from 01.03.2024 to 31.03.2024.



**Varsini S J** of **First year AI&DS B** student has successfully completed her internship on **“UI/UX Design”**, at **CODSOFT** from 01.03.2024 to 31.03.2024.

# IT | NPTEL CERTIFICATIONS



**Elite**

## NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**SHANJAY SP**  
for successfully completing the course  
**Emotional Intelligence**  
with a consolidated score of **60** %

Online Assignments	18.04/25	Proctored Exam	41.5/75
--------------------	----------	----------------	---------

Total number of candidates certified in this course: 2716

Jan-Mar 2024  
(8 week course)



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



Indian Institute of Technology Kharagpur



Roll No: NPTEL24HS06S253501479    To verify the certificate     No. of credits recommended: 2 or 3



**Elite**

## NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**NIVEDHA B**  
for successfully completing the course  
**Emotional Intelligence**  
with a consolidated score of **73** %

Online Assignments	21.42/25	Proctored Exam	51.75/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: 2716

Jan-Mar 2024  
(8 week course)



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



Indian Institute of Technology Kharagpur



Roll No: NPTEL24HS06S253501367    To verify the certificate     No. of credits recommended: 2 or 3

Shanjay S P and Nivedha B, students of First year IT have successfully completed NPTEL course on “Emotional Intelligence” with Elite Grade certified by NPTEL Swayam.

# AI&DS | HACKER RANK ROLE CERTIFICATION



**Bharatwaj.P.R**, student of First year AI & DS A has successfully completed **Hacker rank role certification exam** on **28.04.2024**.

# HEALTHOGRAPHICS

## TOP 10 SUMMER HEALTH TIPS

 <b>DRINK WATER</b> Water helps prevent illness, keeps your bones and muscles healthy, helps maintain your weight and best of all, water fuels your activities throughout the day!	 <b>EAT FRESH</b> Reserve a place on your plate every meal for fresh produce and you're sure to reap the tasty rewards.	 <b>TRANSFORM ACTIVITIES INTO EXERCISE</b> Activities like going to the zoo or visiting a park can become exercise if you use the stairs, take the long route or add stretches and strengthening exercises along the way!	 <b>LIFESTYLE MODIFICATION</b> The summer is a great time to try a new exercise routine, kick-start a new healthy eating plan and quit smoking.	 <b>SEE YOUR DOCTOR</b> Schedule an appointment for a check-up to make sure pain or injury doesn't sideline you this summer.
 <b>STAY SHADY</b> Try to limit your time in the direct sunshine between 10am and 4pm, and always wear sunscreen, a hat and sunglasses.	 <b>PLAN A PERSONAL VACATION</b> A vacation to get away from it all is a must this summer. Take some 'you' time this summer to relax and rejuvenate.	 <b>DISCONNECT</b> Disconnect from the internet, put down those smart phones and see a world without selfies, hashtags and videos.	 <b>SLEEP WELL</b> Getting enough quality sleep at the right times can help protect your mental and physical health, safety and quality of life.	 <b>STAY COOL</b> When it's hot, do what you can to stay cool! Go swimming at your neighborhood pool and visit local air-conditioned attractions.



## EVENTS



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

# MCT | GUEST LECTURE ON EFFECTIVE GOAL SETTING AND ACHIEVEMENT



Department of **Mechatronics Engineering** organized a Guest Lecture on **Effective Goal Setting and Achievement** on 26.04.2024.

**Resource Persons:** Mr. Justus Zachariah, Life coach and Mrs. Shiby Justus Career counselor, We-serve Life Builders Coimbatore.

### Session Highlights:

- Emotional Intelligence
- Self-awareness
- Tips for goal setting
- Obstacles of goal setting
- SMART goal setting

# MCT | GUEST LECTURE ON GLOBAL TRENDS IN ROBOTICS



Department of **Mechatronics Engineering** organized a Guest Lecture on **Global Trends in Robotics** for the Second year MCT students on 29.04.2024.

**Resource Person:** Dr. Rammohan S, Associate Professor, Department of Mechanical Engineering, Amrita School of Engineering, Coimbatore.

### Session Highlights:

- History of Robotics
- Programmable Robots
- Robotics in Manufacturing
- Robotics in Inspection
- Industrial Applications
- Industrial Robots vs Cobots
- The Future AGV



# EEE | ASSOCIATION VALEDICTORY



Department of **EEE** organized its Association Valedictory and Seminar on '**Product Development**', for EEE Students on 26.04.2024. The Chief Guest **Mr. G.Saravanan** - Project Lead (Hardware), Suprajit Automotive Private Limited, Bengaluru appraised the student winners of various association events and student volunteers for the Academic year 2023-2024 with Shields and Merit Certificates and also addressed the gathering and shared his insights.

## Session Takeaways:

- Structure of Automotive Systems, Product Development Languages and Cycle, Advanced Communication Protocols, Insights on Aerospace and Defence Technologies.

# EEE | NIZHAL CLUB ACTIVITY



15 students from Second year **EEE** volunteered at the **National Federation of the Blind Louise Braille Academy in Coimbatore**, affiliated with the World Blind Union. They served as scribes for visually impaired students during Mock Exam - Series III on 25.04.2024. Students demonstrated compassion and solidarity, illustrating that true resilience is defined by character, not sight.

**Faculty Coordinators:** Ms. R. Geethamani, EEE, Ms. T. Malini, EEE

# MECH | GLOBAL LEVEL HYPERLOOP CASE STUDY COMPETITION

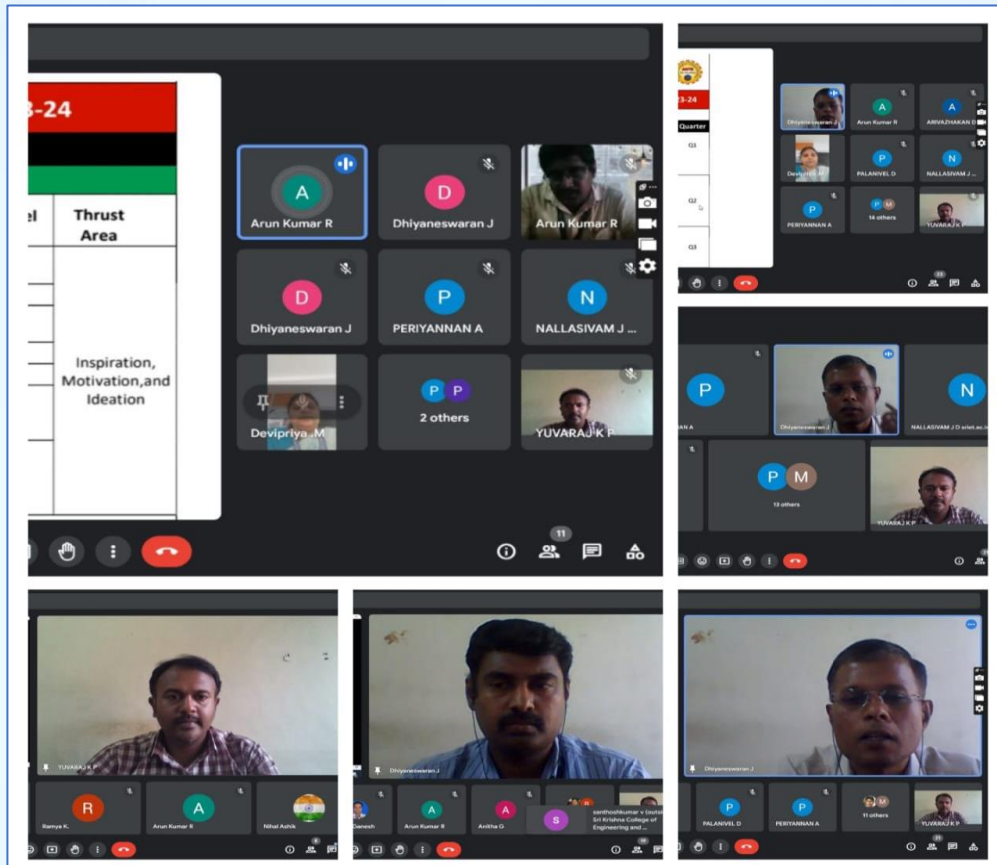


SAE India **SKCET** Collegiate Club student team, Velocity-X, participated in the Global Level Hyperloop Case Study Competition, "**The Hyperloop Effect**," at the Global Hyperloop Conference organized by Indian Institute of Technology Madras and Society of Automotive Engineers (SAE) India. Out of 1000 participating teams, 30 were selected for Poster Presentation at IIT Madras on April 20, 2024. Students successfully presented their project titled "**Revolutionizing Infrastructure: Innovative Cost-Cutting Solutions for Hyperloop Support Structures**". The pioneers of Hyperloop evaluated the students' work and expressed their appreciation.

Team Members: Naveen.V.M , Vignesh.S, Mohanram.M - II Mech B, Mohammed Arif.H, Simson Arul Jones.A.

Team Mentors: Dr.R.Soundararajan & Dr.A.Sathishkumar

## MECH | IIC MEETING FOR MENTEE INSTITUTE



**First Quarterly Progress Meeting for Mentee Institute Representatives** was organized virtually on 26<sup>th</sup> March 2023. The session observed active participation from representatives of the following 5 Mentee Institutions:

1. RVS College of Engineering and Technology, Coimbatore
2. Sri Ranganathar Institute of Engineering and Technology, Coimbatore
3. Easa College of Engineering and Technology, Coimbatore
4. Jai Shriram Engineering College, Tirupur
5. Danish Ahmed Institute of Engineering and Technology, Coimbatore

During the session, valuable insights, best practices and strategies were shared to foster innovation and entrepreneurship among mentee institutions.

# ECE | WORKSHOP ON IOT USING ESP32



Department of Electronics and Communication Engineering organized a Two days Workshop on "IoT using ESP32" for II-year ECE student on 25.04.2024 & 26.04.2024.

**Day 1: Resource persons: Mr.P.Celestine & Mr.R.Vijayaraja**, Robotic Engineers, Robomatiic, Coimbatore.

**Session Takeaways:** IOT Vs Embedded systems, Architecture of IoT SAAS, PAAS and IAAS, Hands on session on Blinking LED with ESP32 and Ultrasonic sensor integrating with ESP32, setting up arduino cloud server with ESP 32, Live distance Monitoring Using ESP32, Temperature and Humidity Monitoring Using ESP32.

**Day 2: The Session Takeaways:** Creating Arduino dashboard to monitor ESP 8266 data's, Integration of PIR motion sensor with ESP 8266 node MCU, Real time data analytics with sensor data using ESP 8266, Integration of proximity sensor with ESP 8266 node MCU.

# CIVIL | SUSTAINABLE INNOVATION CHALLENGE (SIC'24)



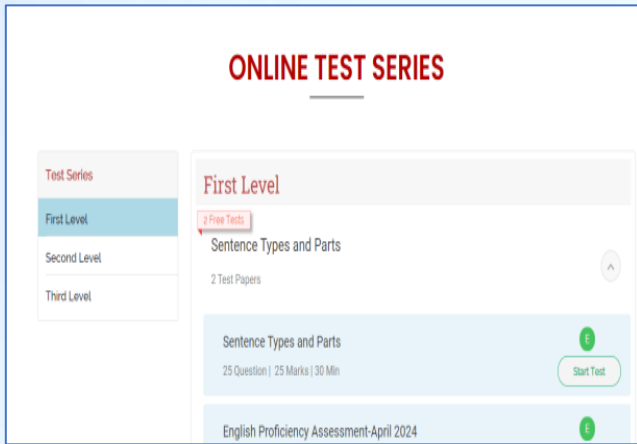
Mid Level Assessment of Ideas presented for the Sustainable Innovation Challenge ( SIC '24 ) was organized by the Research & Innovation Cell on 29<sup>th</sup> April 2024. Fifteen teams from all years of **Civil Engineering** presented the progress of their study (in various domains like Structural Engineering, Transportation Engineering, Water Resources Engineering, Environmental Engineering, Geotechnical Engineering, Town Planning) to the panel members.

# S&H | TAMIL CLUB ACTIVITY



**Tamil Club** of SHA conducted **Tamizhodu Vilaiyaadu** - a word game for the **First year BE/B.Tech** students to foster a sense of community among Tamil language enthusiasts while promoting linguistic proficiency and cultural appreciation.

# S&H | EVALUATING FUNDAMENTAL KNOWLEDGE



An English Proficiency Assessment Test was administered for all First-year students on April 23, 2024, with an aim to assess their understanding and application of essential grammatical principles necessary for academic writing and effective communication. The assessment focused on evaluating proficiency across various grammar aspects relevant to college-level English studies.





# PLACEMENT AND TRAINING



Follow us @



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## EEE | TESTIMONIAL BY PLACED STUDENTS

I would like to begin by expressing my sincere gratitude to the entire SKCET community for their firm support and commitment. Today, as I embark on this exciting journey in my career, I can confidently affirm that the college has not only provided me with education but has also nurtured my overall growth. The exceptional guidance and assistance offered by the faculty members and placement team were remarkable. They not only equipped me with the necessary skills and knowledge but also refined me into a confident and industry-ready professional. I am profoundly grateful to the professors of my department for their rigorous training, which was instrumental in facilitating my attainment of a coveted position at Hitachi Energy. I can say that SKCET has been the most significant part of my life and I greatly admire the support and dedication I received from the management and my department. I sincerely thank my instructors, our Coordinator, my respective Head of Department my professors and my friends, for their immense support, which made my college life a joyful and memorable one.

**ARULKARTHICK T**  
**EEE (2024 BATCH)**  
**HITACHI ENERGY (6 LPA)**



## TESTIMONIAL BY PLACED STUDENTS

I'm Kavin Prashad, a proud graduate of the Electronics and Communication Engineering (ECE) department at SKCET. My journey at SKCET has been transformative and I owe much gratitude to the dedicated faculty members of the department. Their unwavering support and guidance have been instrumental in shaping my academic and professional pursuits. I want to express my deepest appreciation to all the teaching and non-teaching staff of the ECE department for their continuous encouragement and mentorship.

I'm thrilled to share that I've been placed at Soliton Technologies and this achievement wouldn't have been possible without the tireless efforts of the placement team at SKCET. Their support, training and industry connections have equipped me with the skills and confidence needed to embark on this new chapter of my career.

**KAVIN PRASHAD S,  
ECE  
SOLITON TECHNOLOGIES**



## TESTIMONIAL BY PLACED STUDENTS

I am Asenath. I am glad to share that I witnessed what it is to study in an esteemed institution which provides great support to start a career and which plays an amazing role to nurture the skills we have to compete in the current society. Four years at SKCET was a wonderful experience which taught me various lessons. I am grateful for the opportunity the Institution has provided me which shaped me into who I am today. Various activities that were conducted in the campus helped me a lot to enhance my skills. Placement trainings which included online tests and mock interviews helped me to identify the areas in which I have to improve. I am placed in Hexaware with a package of 6 LPA. I thank all the faculty members for their immense support.

**ASENATH A,  
IT,  
HEXAWARE**





# RESEARCH AND DEVELOPMENT



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## R&D | FACULTY PUBLICATION | MCT

Contents lists available at ScienceDirect  
Materials Today: Proceedings  
journal homepage: www.elsevier.com/locate/matpr

Optimization of the microelectrochemical drilling response variables of Inconel 718 alloy by grey relational analysis

M. Lava Kumar<sup>a</sup>, G.S. Guru Dattatreya<sup>a</sup>, S. Rajesh<sup>b</sup>, T.J. Prasanna Kumar<sup>c</sup>, R. Balamurugan<sup>d</sup>, T.A. Selvan<sup>e</sup>, S. Madhankumar<sup>e</sup>

<sup>a</sup> Department of Mechanical Engineering, G.P. Reddy Engineering College, Kurnool 518007, India  
<sup>b</sup> Department of Mechanical Engineering, R.M.K. Engineering College, Tiruvallur 601206, India  
<sup>c</sup> Department of Mechanical Engineering, Prasad V. Potluri Siddhartha Institute of Technology, Vijayawada 520007, India  
<sup>d</sup> Department of Automobile Engineering, KCG College of Technology, Erode 630097, India  
<sup>e</sup> Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore 641038, India

**ARTICLE INFO**

**Keywords:**  
Material removal rate  
Inconel 718 alloy  
Grey relational analysis  
Surface roughness  
Overcut

**ABSTRACT**

The Material Removal Rate (MRR) is a critical aspect of microelectrochemical drilling. This technique relies on chemical processes. The pace of drilling is affected by the atomic mass, electrical supply, electrolytic solution, and drilling period. To understand more about the influence of MRR on Inconel 718 alloy, experimental observations have been carried out with stainless-steel electrodes and various input process settings. The optimization in this study depends on the Taguchi technique with an Optimization by Grey Relational Analysis (GRA). Taguchi's concept was used to set up the testing operations, which included three input processing factors: electrolytic solution, voltage, and feed speed. In count to the MRR, Surface Roughness (SR) and overcut were utilized as response variables in this study. Analysis of Variance (ANOVA) has been utilized to study the effect of input variables on microelectrochemical drilling output parameters. The results of this research demonstrate that voltage is the most important element in achieving the SR and overcut target performing qualities, and optimal settings are discovered. Regression equations are designed for prediction analysis. This study will assist industrialists in determining variables to get desired results.

**Mr.S.Madhan Kumar, Assistant Professor of Mechatronics Engineering** has published a paper titled **“Optimization of the micro electrochemical drilling response variables of Inconel 718 alloy by grey relational analysis”** in **Materials Today: Proceedings**. This is a Scopus indexed publication.

## R&D | JOURNAL PUBLICATION | MECH

**Dr.R.Soundararajan, Associate Professor and Dr.A.Sathishkumar, Assistant Professor, Department of Mechanical Engineering,** have published research article titled **“Influence of medium - and high-entropy alloy fillers on microstructures and corrosion behaviour of AA5083 plates joined by GTAW process”**, in **Journal of Materials Science**. It is indexed in Scopus with an Impact Factor of 4.5.

J Mater Sci  
Metals & corrosion

**Influence of medium- and high-entropy alloy fillers on microstructures and corrosion behaviour of AA5083 plates joined by GTAW process**

K. Kavayarasan<sup>1</sup>, R. Soundararajan<sup>2</sup>, S. Sivasankaran<sup>3</sup>, and A. Sathishkumar<sup>2</sup>

<sup>1</sup> Department of Mechanical Engineering, Karapagam Institute of Technology, Coimbatore, India  
<sup>2</sup> Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore, India  
<sup>3</sup> Department of Mechanical Engineering, College of Engineering, Sultan University, Buraydah 31412, Saudi Arabia

Received: 2 January 2024  
Accepted: 3 April 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature, 2024

**ABSTRACT**

The impact of medium- and high-entropy alloy fillers (4E MEA- $Al_{22}Fe_{20}Ni_{12}Cu_{20}$ , and SE HEA- $Al_{22}Fe_{20}Ni_{12}Cu_{20}Ti_{10}$ ) on the microstructures and corrosion behaviour of AA5083 plates, joined through the GTAW process, is investigated. MEA and HEA fillers were fabricated using the CCW method, and ER3556 filler was used for comparison. This study delves into the alloy fillers' influence on the resultant microstructural characteristics and corrosion resistance of the welded joints. XRD results on weld samples showcased the presence of FCC and BCC phases. The weldment EBSD data revealed unique grain morphologies: long columnar grains, coarse grains, and fine equiaxed grains in WZ, HAZ, and BM, respectively. Microstructural investigations of the weldment revealed heterogeneous structures with finely distributed grains and strong bonding between the AA5083 base metal and filler wires, influenced by constitutional elements. MEA and HEA weldments showed no intermetallic compounds or precipitates. In the ambient temperature potentiodynamic polarisation test, HEA's polarisation resistance was 3.70 times greater, while MEA's was 3.15 times higher than ER3556. The higher corrosion resistance is due to grain refinement, increased grain boundaries, and the formation of a strong passive film. Conversely, in the higher-temperature corrosion experiment, the mass loss for the SE-HEA and MEA weldments was 4.87 and 3.09 times lower than that of the ER3556 weldments. The corroded surface morphology revealed that the ER3556 weldment had deeper pits, while the MEA and SE-HEA weldments had pits of smaller sizes. The formation of oxidation film layers on the corroded surface improves the corrosion resistance. X-ray photoelectron spectroscopy (XPS) findings showed metal oxide layer depositions for all the weldments. Researchers

Handling Editor: Megumi Kawasaki.  
Address correspondence to E-mail: s.ndayar@qu.edu.sa; sivasankaran99@gmail.com  
E-mail Addresses: kkavayarasan92@gmail.com; soundararajan\_mtech@gmail.com; sathish1604@gmail.com

https://doi.org/10.1007/s10853-024-09654-w  
Published online: 25 April 2024

Springer

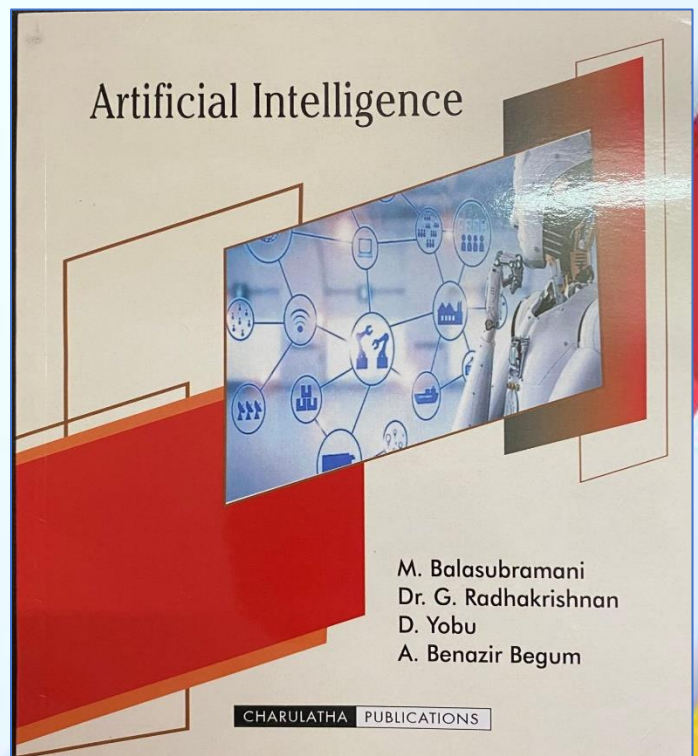
## R&D | DESIGN PATENT GRANT | MECH



**Dr. Yuvaraj K.P.**, Associate Professor, **Mechanical Engineering** has been granted Design Patent on ‘**Autonomous Vehicle Route Navigation Device**’ by The Patent Office, Government of UK.

## R&D | BOOK PUBLICATION | EEE

**Dr. G. Radhakrishnan**, Associate Professor, **EEE** Department, has published a book entitled “**Artificial Intelligence**” on March 2024 with ISBN Number: 978-93-6260-645-7 by **Charulatha Publications**.



# R&D | PATENT PUBLICATION | EEE/MCT



Patent titled **'Intelligent Monitoring Robot'** with design number of **389877-001** has received **Design Patent Grant** on **26-04-2024** with a Certificate of Registration of Design by the Patent Office, Government of India.

**Team Members:**  
Dr.G.Radhakrishnan, ASP/EEE  
Dr.D.Pritima, ASP/MCT  
Dr.G.Veerappan, ASP/MCT  
Mr.T.Vignesh, AP/MCT

# R&D | PATENT PUBLICATION | CSE

Patent titled **"Keylogger Detection and Prevention System"** filed by **Dr.K.Ramesh Professor, CSE**, has been published in the patent Office Journal No 17/2024 Dated **26-4-2024**. His patent titled **"Detection of Phishing Websites using Machine Learning Model"**, has been published dated 22-03-2024.

PUBLICATION	(21) Application No.202441016551	PATENT APPLICATION PUBLICATION INDIA	(21) Application No.20241020013 A
		Date of Filing of Application :18/03/2024	(43) Publication Date : 26/04/2024
on :07/03/2024	(43) Publication Date : 22/03/2024	Title of the invention: KEYLOGGER DETECTION AND PREVENTION SYSTEM	
TECTION OF PHISHING WEBSITES USING MACHINE LEARNING		(71)Name of Applicant : 1)Dr. Ramesh K Address of Applicant :Professor, Krishna College of Engineering and	
9020000000, G06F0021550000, H04L0051000000, 009120000		International Classification :G06F02150000, G06F02130000, G06F02160000, G06F02150000, G06F02000000 Address of Applicant : NA Filing Date : NA Priority Date : NA International Class No : NA Patent of Addition : NA Filing Date : NA Priority Date : NA Filing Date : NA Filing Date : NA Filing Date : NA Filing Date : NA Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Ramesh K Address of Applicant :Professor, Dept College of Engineering and Technol 2)Lakshan Balaji R K Address of Applicant :UG students, Krishna College of Engineering and --- 3)Dhinakaran V Address of Applicant :UG students, Krishna College of Engineering and --- 4)Sruthi R Address of Applicant :UG students, Krishna College of Engineering and ---	
		Abstract: Abstract describes an advanced Keylogger Detection and Prevention Tool designed to identify digital security and protect users. In an era of escalating cyber threats, keyloggers have emerged as a potent tool for unauthorized access to sensitive information. Our tool addresses this menace by offering a comprehensive solution that combines cutting-edge detection algorithms and proactive preventive measures. The tool employs sophisticated signature-based and behavior-based detection mechanisms, using advanced algorithms and machine learning models to swiftly identify and neutralize keylogger threats. By constantly analyzing alongside emerging keylogger tactics, the tool ensures a dynamic defense, offering real-time protection against evolving threats. In addition to its detection capabilities, our tool integrates proactive preventive measures. Through secure coding and user awareness initiatives, it establishes a robust defense, reducing the risk of keylogger infections. Encryption techniques and secure communication protocols are seamlessly integrated, providing an extra layer of protection against potential data leakage. User-friendly and adaptable, our Keylogger Detection and Prevention Tool is designed for both individuals and organizations seeking a reliable and effective solution to safeguard their digital interactions. The tool's versatility makes it an ideal asset for cybersecurity professionals, ensuring a proactive defense against the ever-evolving landscape of keylogger attacks. In conclusion, our tool stands as a beacon in the realm of digital security, offering a holistic approach to keylogger threat detection and prevention. By combining advanced detection algorithms with proactive measures, it provides users with a powerful shield against these digital dangers, contributing to the ongoing battle against cyber threats and ensuring the privacy and security of digital information. # of Pages : 13 No. of Claims : 3	
		The Patent Office Journal No. 17/2024 Dated 26/04/2024	



# R&D | PAPER PUBLICATION | ECE

ieeexplore.ieee.org/document/10395245/authors/authors

Conferences > 2023 International Conference

### Biometrics - Based Voting Machine Combined with Result Analysis Software

Publisher: IEEE [Cite This](#) [PDF](#)

D.V. Soundari, Sajithkumar N., Vijaya Baskar B., Vijayanaradhan D., N. Palaniivel All Authors

2 Full Text Views

**Abstract:**  
India is a growing nation where the electronic voting system is still in danger as a result of election cheating. Elections are a key factor in determining the country's future in the next five years. Hence the current voting system has to be more secure because the present system lacks individual identification then there is a possibility that someone may abuse another person's voting privileges. In this study, fingerprint-based voting authentication is suggested to prevent voting abuse. Here we have included software that is used to update the status of the voting count during the elections. Using Biometrics any individual can vote in any election booth near their residential areas.

**Document Sections:**  
I. Introduction  
II. Methodology  
III. Literature Survey  
IV. IOT  
V. Novelty

**Published in:** 2023 International Conference on System, Computation, Automation and Networking (ICSCAN)

**Date of Conference:** 17-18 November 2023 **DOI:** 10.1109/ICSCAN58655.2023.10395245

**Date Added to IEEE Xplore:** 29 January 2024 **Publisher:** IEEE

ieeexplore.ieee.org/document/10395251/authors/authors

Conferences > 2023 International Conference

### Performance Evaluation of the Infected Rice Leaves Using RCNN

Publisher: IEEE [Cite This](#) [PDF](#)

P.R. Jayarath, S. Vanarasan, Bhargalakshmi V. K. Venkataramanan, G. Saranya, N. Palaniivel All Authors

6 Full Text Views

**Abstract:**  
The main occupation of India is agriculture. Directly or indirectly, two-thirds of the population depends on agriculture. Agriculture feeds the world. Here are some reasons affecting crop production including plant diseases, climate influences, leaf infections, pests and so on. Mainly, crop yield is heavily affected by leaf diseases. Especially on rice leaves, the disease greatly affects the yield. Deep learning with image processing techniques will be of great help in detecting diseased rice leaves at an early stage, greatly contributing to disease detection. We have proposed a method in which processing using image processing techniques is performed on the images we have collected and the RCNN algorithm is used for disease detection and classification.

**Document Sections:**  
I. Introduction  
II. Deep Learning  
III. Related Works  
IV. Leaf Disease  
V. Proposed System

**Published in:** 2023 International Conference on System, Computation, Automation and Networking (ICSCAN)

**Date of Conference:** 17-18 November 2023 **DOI:** 10.1109/ICSCAN58655.2023.10395251

**Date Added to IEEE Xplore:** 29 January 2024 **Publisher:** IEEE

ieeexplore.ieee.org/document/10395521/authors/authors

Conferences > 2023 International Conference

### Robust Railway Crack Detection Scheme Using IR Sensor

Publisher: IEEE [Cite This](#) [PDF](#)

A. Albert Raj, Chenna Krishnan V., Rajkumar G. All Authors

2 Full Text Views

**Abstract:**  
Indian Railways' network spans 115,000 kilometres over the all of India transport operations. According to a recent analysis, the track needs to be replaced on more than 25% of its length because it has developed cracks. Indian railway community is the biggest rail passenger transport community. Transportation in the sphere of latest countrywide transportation infrastructure. Most of the industrial shipments are made in India. Transported via the rail network, the most inexpensive mode of transportation and favoured over different modes of transportation such as buses and planes. Improving Indian financial system led to dramatic boom in latest years, the demand for skill of transportation has increased, the site visitors quantity in the place improved drastically Indian railway network. Transportation is a necessary necessity specialization that allows the manufacturing and consumption of Products show up in a range of places [1]. Economically Prosperity constantly relies upon on expanded prosperity Transport potential and rationality. However, the infrastructure and transportation operations have a large have an impact on international locations and nations, is the greatest supply of electricity for transportation. Sustainability and protection are massive issues. Transportation is very essential important for transporting passengers and items from one area to any other another. Better transportation potential extra trade. Economically Level overall relies upon on ability and stage up transportation. This product makes use of an IR sensor for crack detection railroad. Displays latitude and longitude when cracks are detected the cost is dispatched to your cell smartphone as a message. Then the IR sensor.

**Document Sections:**  
I. Introduction  
II. Related Work  
III. GSM (Global System for Mobile Communications)  
IV. Methodology  
V. Implementation

**Published in:** 2023 International Conference on System, Computation, Automation and Networking (ICSCAN)

**Date of Conference:** 17-18 November 2023 **DOI:** 10.1109/ICSCAN58655.2023.10395521

ieeexplore.ieee.org/document/10394760

Conferences > 2023 International Conference

### Design and Implementation of IOT Based Real Time Traffic Monitoring System

Publisher: IEEE [Cite This](#) [PDF](#)

U. Vanitha, Shegha C., Soumya Gupta, Sowmya S. All Authors

2 Full Text Views

**Abstract:**  
In modern world, traveling has become a very stressful task due to the unchecked population boom. People grow irritated and frustrated as a result of this, which also expensive. Numerous solutions have been proposed by researchers to address this issue. The timer model is one of the models that is currently in use. Timers may be utilized extensively to regulate traffic at each step. Another solution in use makes use to identify cars generate the necessary signals. This research presents a revolutionary image-processing-based that maintain under. Matlab's tools, a count of vehicles from the input images is calculated, and a green signal allowing vehicles to pass is given at various times based on the count. LEDs are used to show the red and green signals in the proposed prototype, and a seven-segment display is used to show the green signal's decrementing timer.

**Document Sections:**  
I. Introduction  
II. Literature Survey  
III. Existing System  
IV. Proposed System  
V. Implementation

**Published in:** 2023 International Conference on System, Computation, Automation and Networking (ICSCAN)

**Date of Conference:** 17-18 November 2023 **DOI:** 10.1109/ICSCAN58655.2023.10394760

**Date Added to IEEE Xplore:** 29 January 2024 **Publisher:** IEEE

Following faculty members of **ECE** department have presented their conference papers in the 2023 International Conference on System, Computation, Automation and Networking (ICSCAN) and published in IEEE Explore. It is a Scopus indexed Conference.

Name of the Faculty	Title of the Paper
Ms.D.V.Soundari	Biometrics - Based Voting Machine Combined with Result Analysis Software
Ms.G.Saranya	Performance Evaluation of the Infected Rice Leaves Using RCNN
Dr.A.Albert Raj	Robust Railway Crack Detection Scheme Using IR Sensor
Mrs.U.Vanitha	Design and Implementation of IOT Based Real Time Traffic Monitoring System
Mr.R.Sarath Kumar	Design and Implementation of Fault Detection and Vehicle Safety Using Embedded Systems



# FACULTY CERTIFICATIONS



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

# AI&DS | INFOSYS CERTIFICATION



**Mr.G.S.Pugalendhi**, Assistant Professor, **AI&DS** has successfully completed a course titled **“Deep Learning with Keras”** offered by Infosys Springboard on 23.04.2024

# EEE | FACULTY DEVELOPMENT PROGRAM

**Dr.J.Karthika**, Professor, **EEE** Department has participated in the Five Days Faculty Development Program on **“Effective Research Paper Writing Strategies and High-Impact Journal Publication Techniques”** organized by the Department of Computer Applications, Kongu Engineering College, Erode from 22-04-2024 to 26-04-2024.

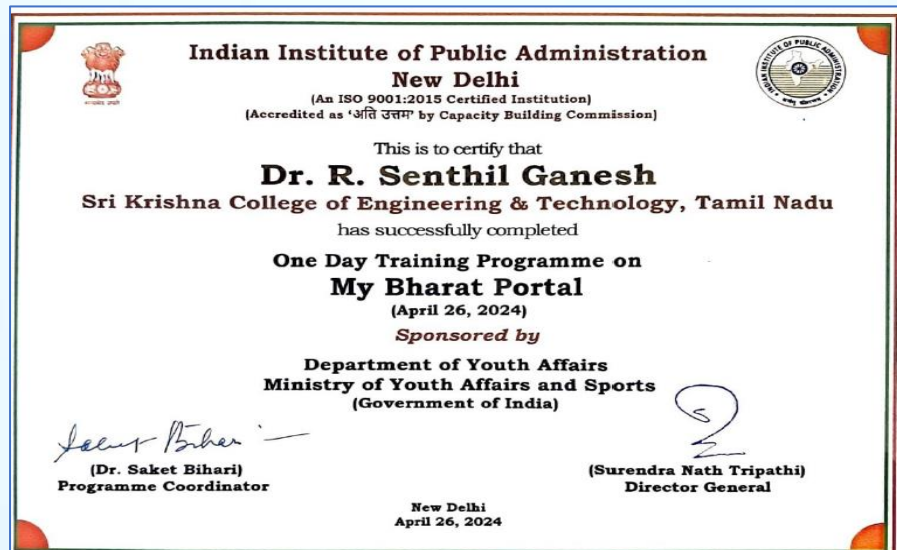


# EEE | FDP ON INTELLIGENT CONTROL OF E-VEHICLES



Dr.N.Loganathan, Ms.T.Malini, Ms.C.Pavithra, Assistant Professors, EEE Department have participated in Six Days Faculty Development Training Program on “**Intelligent Control of Electric Vehicles**” organized by the Department of Electrical and Electronics Engineering, Dr.N.G.P Institute of Technology, Coimbatore.

## EEE/ECE | MY BHARAT PORTAL TRAINING PROGRAM



**Dr.B.Karthikeyan**, Associate Professor, **EEE** Department and **Dr.R.Senthil Ganesh**, Associate Professor, **ECE** Department has successfully completed One Day Training Program on “**My Bharat Portal**” organized by Indian Institute of Public Administration, New Delhi on 26-04-2024.

# ECE | INFOSYS CERTIFICATION



**Dr.T.Joby Titus,** Associate Professor, Department of **ECE** has successfully completed and received certification on **“Java Concepts”** by Infosys Springboard.

# CSE | WORKSHOP ON OFFICE MASTER ON EXCEL USING AI

**Dr.Rasi D,** Associate Professor **CSE** has been awarded with a certificate for completing a 1-Day Workshop conducted by **“Office Master on Excel using AI”**, on 24<sup>th</sup> April 2024.



## IT | WIPRO CERTIFICATION



Dr.G.Shobana, Associate Professor, IT has participated in the training program on AI & ML conducted by TalentNext Wipro from 22-04-2024 to 26-04-2024.

## S&H | NPTEL CERTIFICATION



**Dr.Sangeetha M** and **Dr.Packiaraj S**, Assistant Professors, Chemistry domain, Department of **Science and Humanities**, have excelled in completing the Basics in Inorganic Chemistry course, emerging as the top performers among 385 candidates.



# CONFERENCE PRESENTATION



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in



# EEE | CONFERENCE PRESENTATION



**Mr.V.V.Vineeth**, Assistant Professor, EEE Department has presented a research paper entitled **“Development of Hybrid Energy Source Electric Vehicles with DC-DC Converters”** in the 7<sup>th</sup> International Conference on Inventive Computation Technologies (ICICT - 2024) organized by Tribhuvan University, Nepal, during April 24 and 26, 2024.

# EEE | CONFERENCE PRESENTATION

**Dr.T.Kokilavani**, Associate Professor, EEE Department has presented a research paper entitled **“Smart Energy Generating System in Electric Vehicle”** in the IEEE sponsored International Conference on Science, Technology, Engineering and Management (ICSTEM’24) organized by Kalaignarkarunanidhi Institute of Technology, Coimbatore, during April 26 & 27, 2024.



# ECE | CONFERENCE PRESENTATION



**Mr J R Dinesh Kumar**, Assistant Professor has received an appreciation certificate for his role as reviewer in the “**3<sup>rd</sup> IEEE International Conference on Distributed Computing and Electrical circuits and Electronics (ICDCECE-2024)**” held on 26<sup>th</sup> and 27<sup>th</sup> April 2024.

# AI&DS | CONFERENCE PRESENTATION

**Dr.T.Sujatha**, Associate Professor, **AI&DS** presented a paper titled “**Exploring Sensor-Based Smart Farming Technologies in the Internet of Things (IoT)**” in the International Conference on Computing and Data Science, **ICCDS - 2024**, organized by **Rajalakshmi Engineering College, Chennai** on April 26 and April 27, 2024.





# ALUMNI CORNER



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## MCT | ALUMNI INTERACTION



**Mr. Saktheeswaran Govindarajan**, R&D Engineer, Easwara Groups, Coimbatore, Alumni, Department of Mechatronics Engineering (2018 – 2022 batch). He addressed the student's volunteers of E-kart & Solar kart on 09.04.24 and various design challenges in E-kart & Solar kart design and provided solutions for it. He appreciated all the students for their involvement in Kart works. The technical and non-technical aspects of E-kart & Solar kart works were also discussed.

# EEE | ALUMNI INTERACTION



Department of **Electrical and Electronics Engineering** organized an Alumni interaction to inspire the upcoming waves on the topic '**Life after Engineering**' on 29.04.2024.

**Resource Person:** Mr. V K Vijay Vignesh, (2018-2022 Batch Alumnus), Associate Software Engineer, ADP India, Chennai.

**Session Highlights:**

- School Vs Engineering, Skill upgradation, Knowledge Sharing, Personal Development, Participation in Co-curricular and Extra Curricular activities.



# CREATIVE CORNER



Follow us  
@



#skcetofficial



#skcetofficial



#skcet



#skcetofficial



Feedback@  
skcetbuzz@skcet.ac.in

## ECE | CELEBRATING WORKERS' DAY: HONOURING THE BACKBONE OF SOCIETY

As the world commemorates Workers' Day, it's an opportune moment to reflect on the invaluable contributions of workers across all sectors. From the bustling city streets to the serene countryside, their dedication and hard work shape the fabric of society. At the heart of every industry lies the labour force, tirelessly toiling to keep the wheels of progress turning. Whether in factories, offices, farms, or hospitals, workers are the unsung heroes powering economies and enriching communities.



Workers' Day serves as a reminder of the labor rights and protections that have been fought for and won over the years. It's a time to advocate for fair wages, safe working conditions, and equitable treatment for all workers, regardless of their occupation or background. Beyond economic contributions, workers are the embodiment of resilience and determination. In the face of adversity, they persist; striving for a better future for themselves and their families. This day is also an opportunity to recognize the diversity of the workforce. Workers come from all walks of life, bringing with them unique perspectives and talents that enrich workplaces and drive innovation.

As we celebrate Workers' Day, let us not forget the sacrifices made by those who came before us to champion labor rights. Their legacy inspires us to continue the fight for social justice and equality in the workplace.

In an ever-evolving world, the role of workers remains paramount. Their skills, creativity, and dedication are essential for navigating the complexities of modern society and building a brighter tomorrow.

Let us take this occasion to express gratitude to the workers who keep our communities functioning day in and day out. Their efforts do not go unnoticed and their contributions are deeply appreciated. Workers' Day serves as a call to action, urging policymakers and employers to prioritize the well-being and dignity of workers in all decision-making processes. Only through collective effort can we create inclusive and sustainable workplaces for future generations.

In the spirit of solidarity, let us stand together in support of workers' rights and dignity. Their tireless efforts deserve recognition and respect, today and every day. As we mark this special day, let us reaffirm our commitment to building a world where every worker is valued, empowered, and able to thrive.

Happy Workers' Day to all those who make our world a better place through their labor and dedication.

**BY**  
**POOJANA K M**  
**ECE - B**

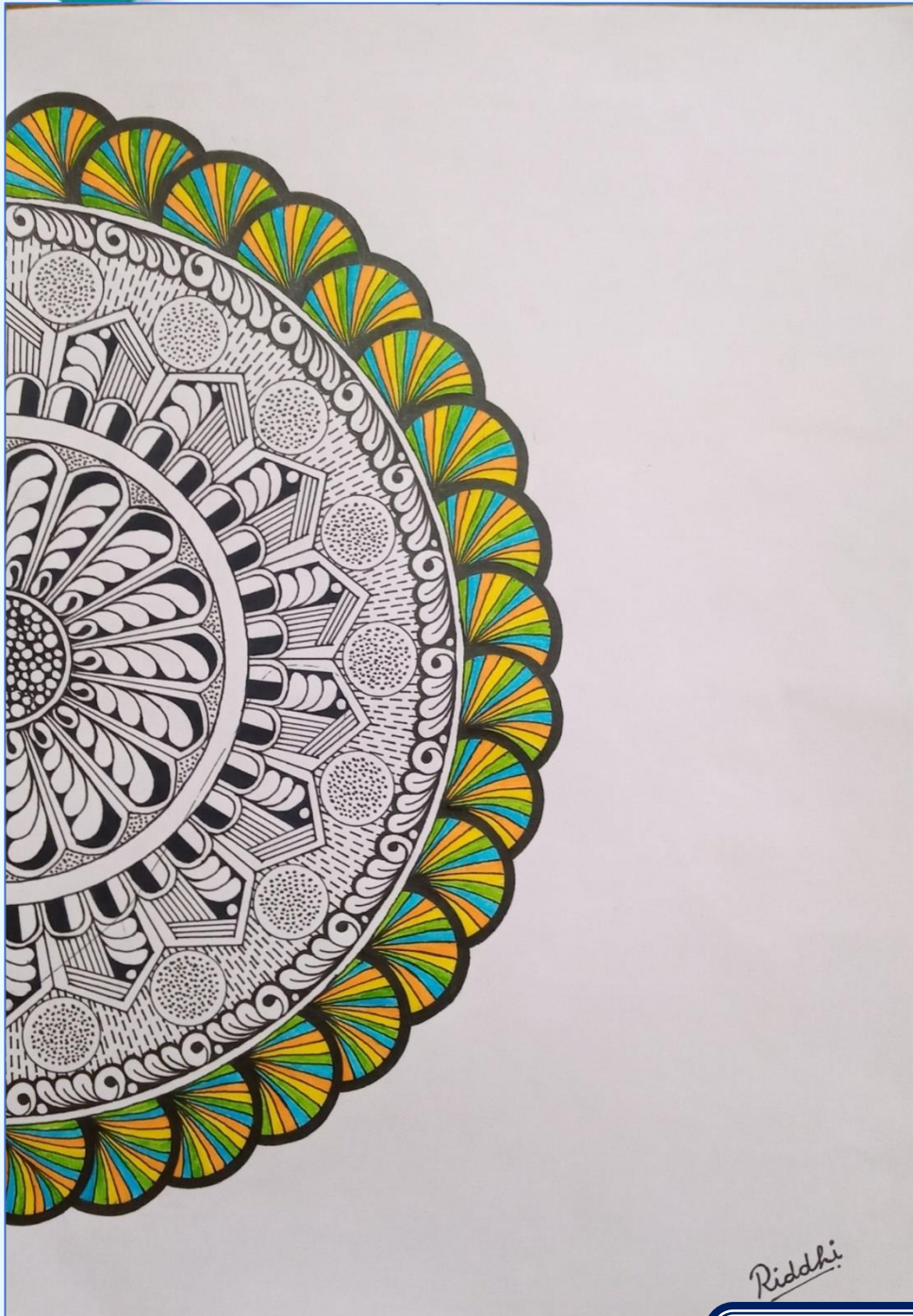


## CIVIL | CREATIVE CORNER



R RAGAPRIYA  
727723EUCV044  
I CIVIL

## CIVIL | CREATIVE CORNER



**RIDDHI RESHMI R**  
**727723EUCV047**  
**I CIVIL**