

IGNITE 2024



A DAILY NEWSLETTER

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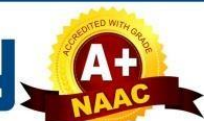
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PLACEMENT NEWS

**CAMPUS
PLACEMENT DRIVE**

BATCH 2024 PASSOUT



MEESHO

DATE:
13.1.2024

Eligible Department:
All Department

Package:
15 LPA

Drive Venue:
Virtual



**COUNSELING
CODE**
1316



Final year students from all branches attended the online assessment virtually for Meesho Company on 13th January, 2024 for Software developer role with a CTC of 15 LPA .

Meesho is an online shopping platform owned by the Indian company Fashnear Technologies Private Limited.

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FACULTY ACHIEVEMENT

DEPARTMENT OF EIE, ICE, CSBS AND AI & DS



ICCEBS 2023
14.12.2023 & 15.12.2023



CERTIFICATE OF PARTICIPATION

This is to certify that Dr/Prof/Mr/Ms..... **Umadevi G**
of..... **Agni College of Technology**.....has presented a paper
titled **Research on regulators required for cell migration using gene encoding technique**
.....in
the IEEE technically sponsored **First International Conference on "INTELLIGENT COMPUTING AND CONTROL FOR ENGINEERING AND BUSINESS SYSTEMS(ICCEBS'23)"** held during 14th & 15th December 2023.

K. Renganathan
Dr. K. Renganathan
ICCEBS Conference chair

Dr. K. Porkumaran
Dr. K. Porkumaran
Principal

Sai Prakash LeoMuthu
Dr. Sai Prakash LeoMuthu
Chairman & CEO,
Sairam Institutions



Mrs. G.Umadevi , Assistant Professor of the Department of Computer Science and Engineering, has published a paper titled **"Research on regulators required for cell migration using encoding techniques"** in the IEEE technically sponsored First International Conference on **"INTELLIGENT COMPUTING AND CONTROL FOR ENGINEERING AND BUSINESS SYSTEMS (ICCEBS'23)"** held on 14th and 15th December 2023.

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FACULTY ACHIEVEMENT

Proceedings of the International Conference on Sustainable Communication Networks and Application (ICSCNA 2023)
IEEE Xplore Part Number: CFP23DW8-ART; ISBN: 979-8-3503-1398-7

Empowering Solar Energy with Advanced IoT-Based Forecasting: A Hybrid Deep Learning Model for Enhanced Efficiency with Big Data

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Abstract— Solar power is a sustainable energy source that converts sunlight into electricity through photovoltaic panels in large solar facilities. Inverters play a crucial role by converting DC power to usable AC power, albeit with some energy loss. Efficiency relies on factors like solar irradiance, clear skies, clean panels, and unobstructed sun exposure. Sensors on panels and inverters in large-scale installations monitor performance and aid in forecasting power generation and maintenance. The Internet of Things (IoT) facilitates remote monitoring and data accessibility, streamlining site assessment for solar power. Smart systems with sensors connected to an Arduino enable continuous monitoring of panel parameters. Short-term energy generation forecasting models are essential for integrating solar systems into smart grids, especially in smart cities. An advanced hybrid deep learning model combines clustering techniques, convolutional neural networks (CNNs), long short-term memory (LSTM) networks, and attention mechanisms to provide accurate energy generation forecasts. The model consists of three stages: Big Data clustering, training, and forecasting. Clustering identifies relevant historical data, and the training stage constructs a hybrid machine learning model. The testing stage selects the best model, leading to significant improvements in prediction accuracy compared to traditional methods.

Keywords: Convolutional neural network, Long short-term memory, Photovoltaic, Machine Learning, Big data

I. INTRODUCTION

Solar plant systems exhibit complicated nonlinear dynamics and uncertainty as a result of changes in system parameters and insolation [1]. Traditional approaches struggle to accurately model these complexities, whereas machine learning (ML) techniques deliver the performance needed [2]. Machine learning (ML) approaches are heavily utilized by contemporary sensor systems to enhance the processing of enormous amounts of data for tasks including solar plant design, forecasting, maintenance, and control [1],[2]. As part of the EU's response to the COVID-19 conundrum, smart energy standards have set requirements for a cloud platform in a

distributed solar big data ecosystem. This platform aims to hasten the development of efficient ML technologies for complex solar energy systems [3].

It is crucial to address problems like grid integration, high costs, and low efficiency if solar energy is to be sustainable in the long run. The study and development of smart solar plant systems driven by ML approaches is the best option to address these difficulties given the inefficiency of current methods. Innovative investigations have collected, examined, and transformed vast sensory data into relevant ML knowledge using ML technologies. The tools utilized by SCADA (supervisory control and data acquisition) are used to collect these huge datasets [4]. By seamlessly integrating sensor systems with ML technologies, the SCADA system can construct an ML sensor system that is powered by software that implements ML sensor models and communicates with SCADA through APIs.

The application of machine learning (ML) techniques and big data methods is becoming increasingly prevalent in the field of power electronics, and their integration is proving transformative for the performance, efficiency, and reliability of power electronic systems. Several pivotal areas within this domain stand to benefit significantly from the amalgamation of ML and big data methodologies. In the realm of fault detection and diagnostics, ML algorithms excel in sifting through the copious data generated by power electronic devices, demonstrating proficiency in identifying faults and anomalies. Real-time monitoring of critical parameters such as voltage, current, temperature, and switching behavior empowers ML models to swiftly detect issues and forecast maintenance requirements. This proactive approach results in substantial reductions in both downtime and maintenance costs. Predictive maintenance, underpinned by big data techniques, leverages historical data from power electronics systems to anticipate component failures. By strategically scheduling maintenance activities at convenient and cost-

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Dr. S. Dhanasakkaravarthi, AP/Mechanical, has published a journal in an "International Conference on Sustainable Communication Networks and Application" on the topic of "Empowering Solar Energy with Advanced IoT-Based Forecasting: A Hybrid Deep Learning Model for Enhanced Efficiency with Big Data".

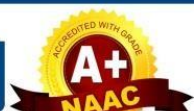
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FACULTY PARTICIPATION

**Jerusalem College of Engineering**

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Velachery Main Road, Pallikaranai, Chennai - 600100.

Department of Biomedical Engineering**5-DAYS FACULTY DEVELOPMENT PROGRAM ON
AUTOMATION & ANALYTICS IN SMART HEALTHCARE****CERTIFICATE OF PARTICIPATION**

This certificate is proudly presented to **Dr. M. Sivakami Sundari**,
Assistant Professor, Agni College of Technology who has actively
participated and completed 5-days Virtual Faculty Development Program on
“Automation & Analytics in Smart Healthcare” during December 11 to 15, 2023.

MS.C.L. ANNAPUORANI
FDP COORDINATOR

DR.J.SOFIA BOBBY
CONVENER

DR. RAMESH S
PRINCIPAL

PROF. DR. M. MALA
CHAIRPERSON

Dr. M. Sivakami Sundari , Assistant Professor, Department of Science and Humanities (Mathematics) has participated in a five-day Faculty development program on "Automaton and Analytics in smart Healthcare" conducted by the department of biomedical engineering at Jerusalem Engineering college during December 11th to 15th 2023.

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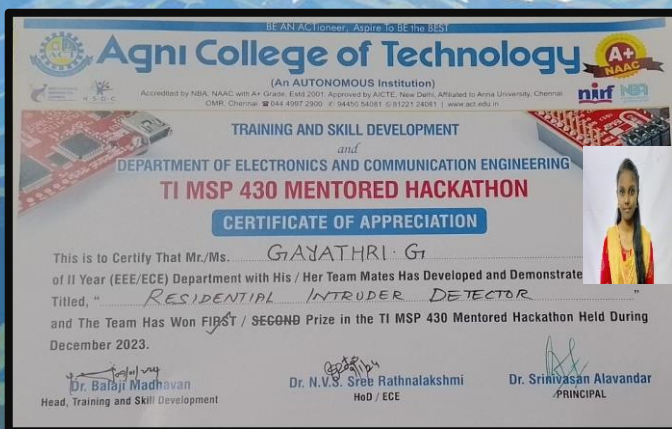
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STUDENT ACHIEVEMENT



Tejashwini.A., Sandhiya.R., & Gayathri.G., of II Year – Department of Electrical and Electronics Engineering, has developed and demonstrated a Project titled “**RESIDENTIAL INTRUDER DETECTOR**” and the team won First Prize in the TI MSP 430 Mentored Hackathon conducted by Training and Skill Development and The Department of Electronics and Communication Engineering

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STUDENT ACHIEVEMENT



Suriya.J., Rishikumar.S., Hari Kesavan.M., of II Year – Department of Electrical and Electronics Engineering, has developed and demonstrated a Project titled “SMART IRRIGATION SYSTEM” and the team won First Prize in the TI MSP 430 Mentored Hackathon conducted by Training and Skill Development and The Department of Electronics and Communication Engineering

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GALLERY



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STUDENT ACHIEVEMENT



CERTIFICATE OF COMPLETION

Presented to

G. Pratheesh Kumar



For successfully completing a free online course
Python Data Structures

Provided by

Great Learning Academy

(On January 2024)

Pratheesh Kumar G, II Year Student, Department of Information Technology, has completed an online course on **“Python Data Structures”** on Great Learning in the month of January 2024.

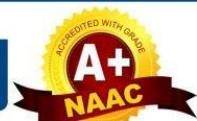
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STUDENT PARTICIPATION

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TRAINING AND SKILL DEVELOPMENT

and

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEXAS INSTRUMENTS MSP 430 MENTORED HACKATHON

CERTIFICATE OF PARTICIPATION



This is to Certify that Mr./Ms. BANU PRIYA K
of II Year (EEE/ECE) Department with His / Her Team Mates has Developed and Demonstrated a project
Titled, “ Embedded Traffic Control System ” for the
TI MSP 430 Mentored Hackathon Held During December 2023.

[Signature]
Dr. Balaji Madhavan

Head, Training and Skill Development

[Signature]

Dr. N.V.S. Sree Rathnalakshmi
HoD / ECE

[Signature]

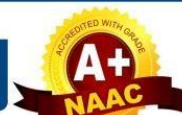
Dr. Srinivasan Alavandar
PRINCIPAL

Banupriya K, II Year – Department of Electrical and Electronics Engineering has developed and demonstrated a Project titled “EMBEDDED TRAFFIC CONTROL SYSTEM” for the TI MSP 430 Mentored Hackathon conducted by Training and Skill Development and The Department of Electronics and Communication Engineering

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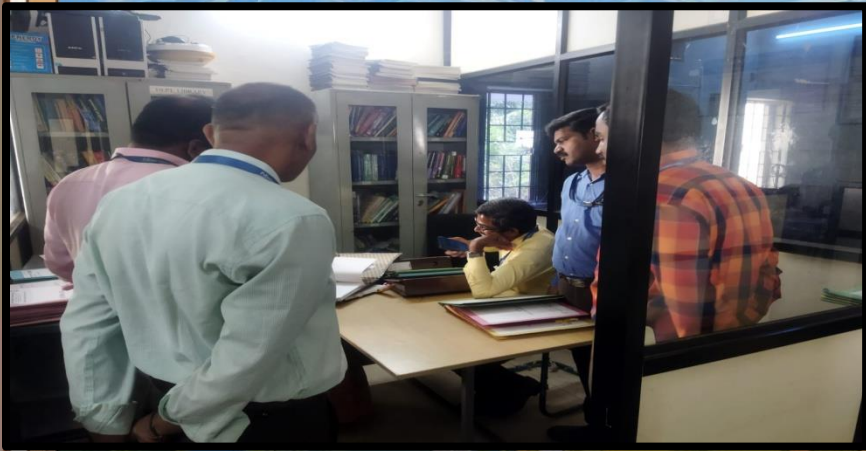


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IQAC AUDIT



The 2nd IQAC audit of the academic year 2023-2024, Odd semester – Department of Mechanical Engineering, has been conducted as per the schedule on 18.01.2024. Dr. N.V.S. Sree Rathnalakshmi-HoD, Electronics and Communication Engineering, has verified the files, and suggestions for updates were provided.

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IQAC AUDIT



Dr. S.Narendranathan, Associate Professor & Head, Department of Aerospace Engineering audited the Civil Engineering Department IQAC files in the presence of Mrs.R.Beaula Jasmine,Head, on 18th January 2024. The files were verified and suggestions for updates were provided.

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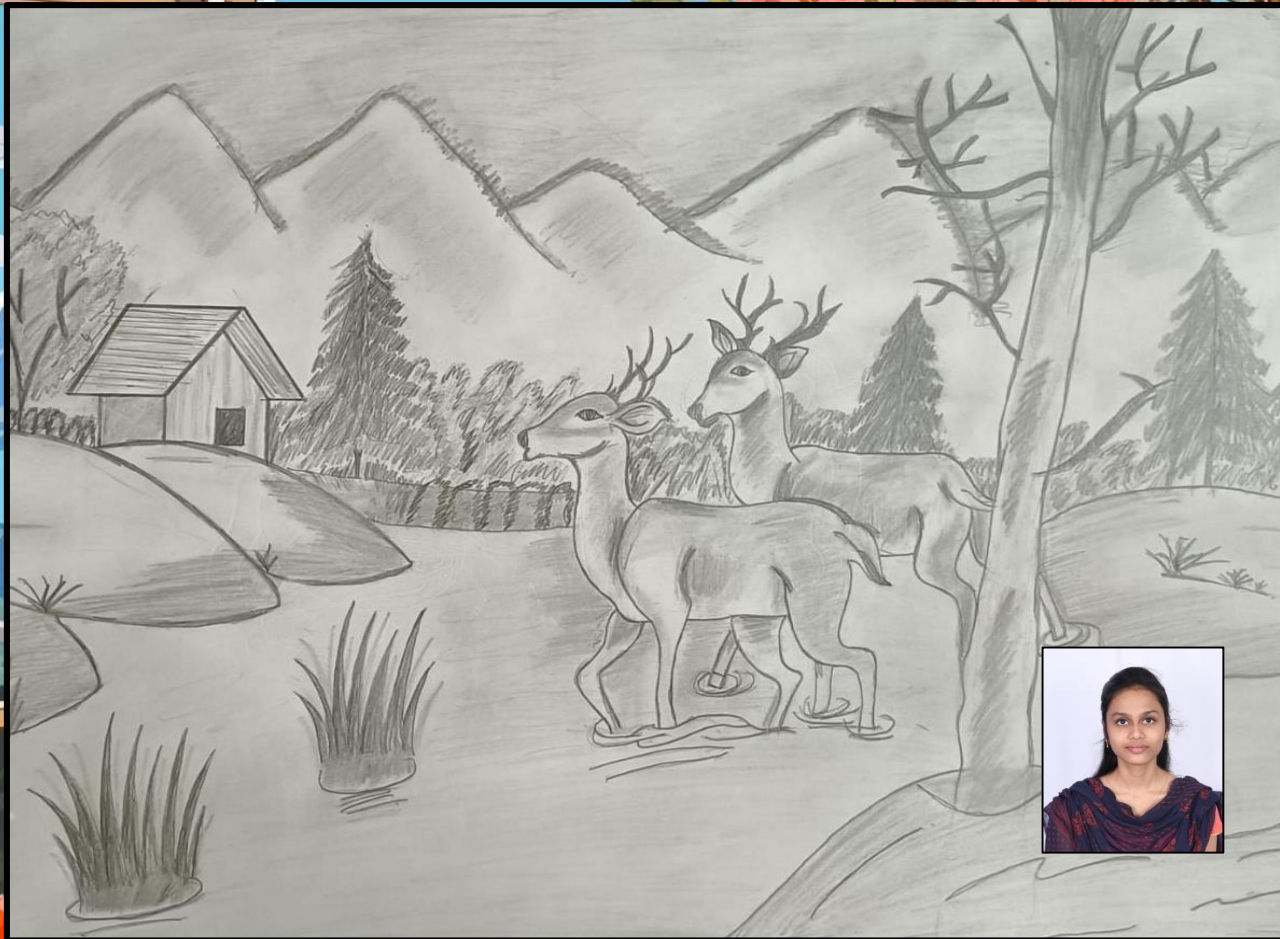
IQAC AUDIT



Dr. S.K. Narendranathan, Professor/Head, Department of Aerospace Engineering, has verified the updation of documents and provided the suggestions, in the presence of Dr. N.V.S. Sree Rathna Lakshmi, Professor/ Head, Department of Electronics and Communication Engineering, along with department faculties.

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STUDENT REPOSITORY



Saranya G, II year student, Department of Information Technology, has depicted the beautiful scenery of nature.

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