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IGNITE 2024

IGNITE 2024

IGNITE 2024

★ ★ ★ *December* ★ ★ ★

A DAILY NEWSLETTER
20.12.2024

Agni College of Technology

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BE AN ACTioneer, Aspire To BE the BEST



Agni College of Technology

(An AUTONOMOUS Institution)

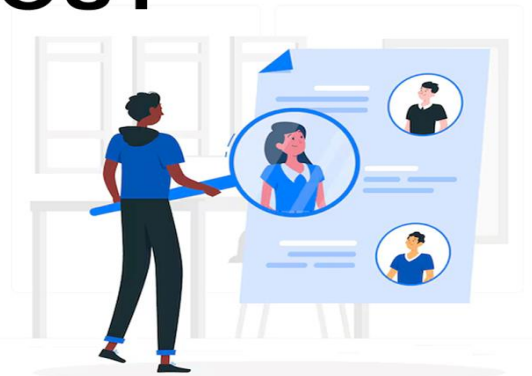


Accredited by NBA, NAAC with A+ Grade, Estd.2001. Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
OMR, Chennai ☎ 044 4997 2900 📠 94450 54081 📍 81221 24081 | www.act.edu.in



CAMPUS PLACEMENT DRIVE BATCH 2025 PASSOUT

COUNSELING
CODE
1316



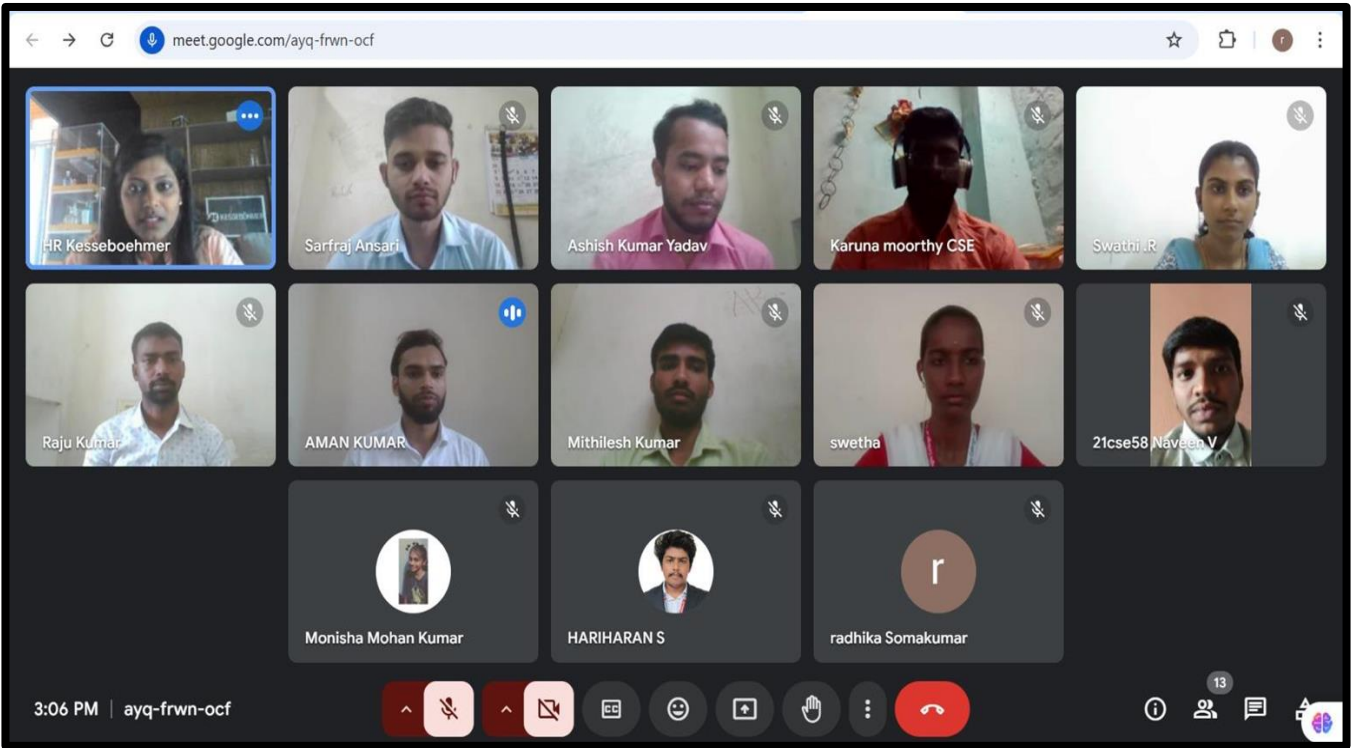
Kesseboehmer Furniture Fittings India Pvt. Ltd.

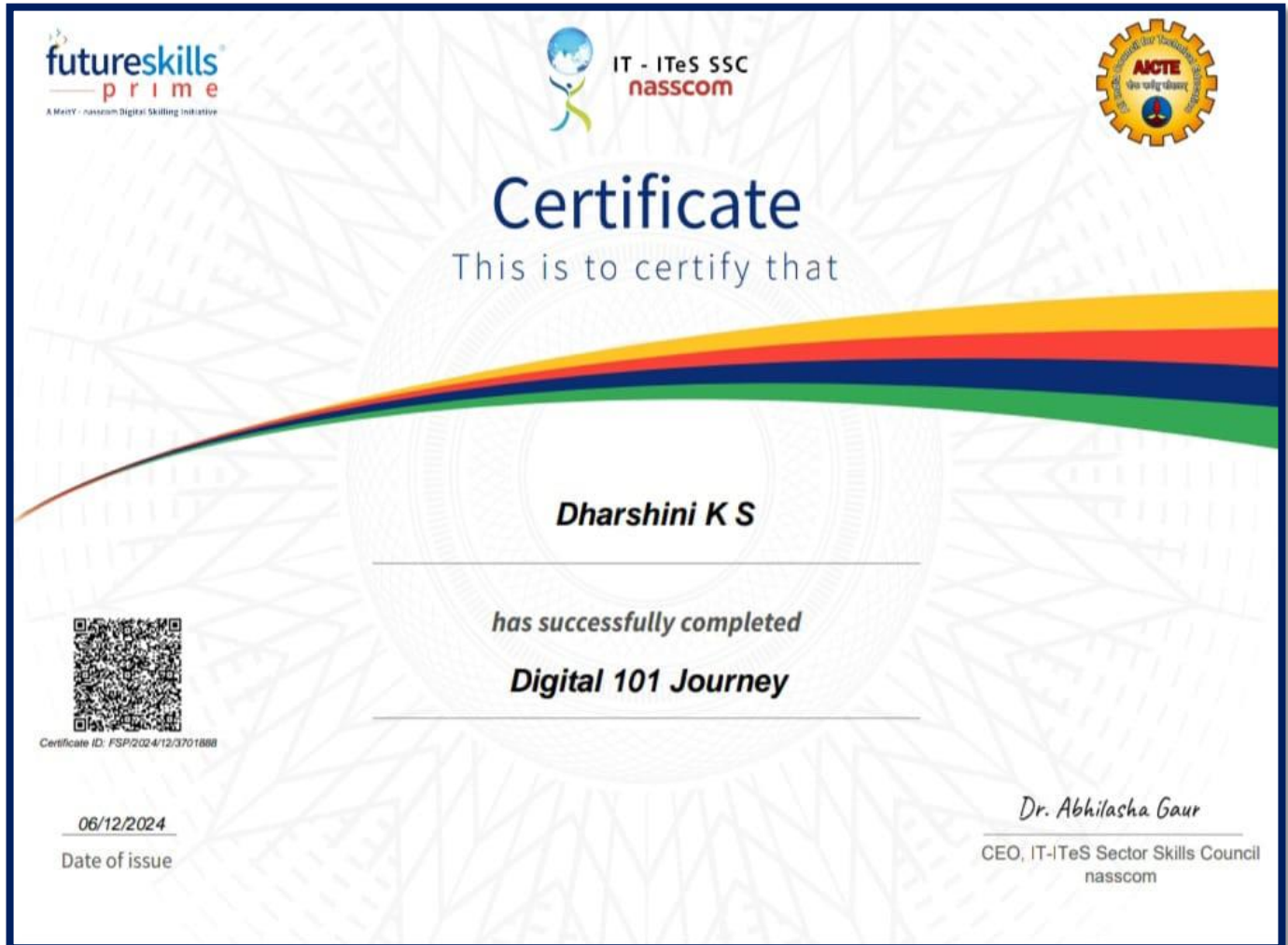
The final year students of all departments attended the Online Group Discussion Round for **Kesseböhmer Furniture Fittings India Pvt Ltd** on **19.12.2024** between 3.30 to 4.30 pm. For almost 70 years, **Kesseböhmer** has been a reliable partner for shopfitting, the furniture industry, the automotive industry and manufacturers of ergonomic office furniture and stands for innovative solutions that combine design, function and quality.

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K. S. Dharshini (BME), a 1-year student from the Department of Science and Humanities, has successfully completed the certificate course on “**Digital 101 Journey**” provided by IT-ITeS SSC NASSCOM, futureskills Prime with AICTE in the month of December 2024.



CERTIFICATE OF COMPLETION

Presented to

MOHAN M

For successfully completing a free online course
Prompt Engineering for ChatGPT

Provided by

Great Learning Academy

(On December 2024)

Mohan M, a II-year student from the Mechatronics Department, has successfully completed the online course on the topic of **“PROMPT ENGINEERING FOR CHATGPT”** organized by GREAT LEARNING ACADEMY on DECEMBER 24.

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Vishnu S, a II-year student from the Mechatronics Department, successfully completed the online course on the topic of **“ENCODER DECODER ARCHITECTURE”** organized by SIMPLILEARN on DECEMBER 24.

Luminescence

WILEY

LUMINESCENCE
The Journal of Biological and Chemical Luminescence

SHORT COMMUNICATION

Iron-Doped Cadmium Sulfide/Graphene Oxide (Cd_(1-x)Fe_(x)S/GO) Nanocomposites for Photocatalytic Degradation of Toxic PollutantsS. Dorothy¹ | P. Sugumar² | S. Meenakshi³ | Munusamy Settu⁴ | Sandhanasamy Devanesan⁵ | K. Kalpana^{6,7} | Saurav Dixit⁸ | K. Rajendran¹⁰

¹Department of Chemistry, Government Arts and Science College, Perumbakkam, Chennai, India | ²Department of Physics, Agni College of Technology, Chennai, India | ³Department of Chemistry, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, Tamil Nadu, India | ⁴Centre for Applied Nanomaterials, Chennai Institute of Technology, Chennai, India | ⁵Department of Physics and Astronomy, College of Science, King Saud University, Riyadh, Saudi Arabia | ⁶Department of Electrochemistry, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai, India | ⁷Biochemie Research Laboratory, Chennai, India | ⁸Centre of Research Impact and Outcome, Chitkara University, Rajpura, Punjab, India | ⁹Division of research and innovation, Uttaranchal University, Dehradun, India | ¹⁰Department of Polymer Sciences, University of Madras, Chennai, Tamil Nadu, India

Correspondence: S. Meenakshi (meenakshivanitha@gmail.com) | K. Kalpana (kalpanakumar19@gmail.com)**Received:** 31 May 2024 | **Revised:** 7 November 2024 | **Accepted:** 18 November 2024**Funding:** This work was supported by the Center for Computational Modeling (CIT/CCM/2023/RP-013) and the Researchers Supporting Project (RSP2025R398).**Keywords:** Cd_(1-x)Fe_xS/GO | coprecipitation | methyl Orange | nanocomposites | photocatalysis | semiconductors

Dr. P. Sugumar, Assistant Professor, Department of Science and Humanities (Physics) has published a research paper titled **“Iron-Doped Cadmium Sulfide/Graphene Oxide (Cd(1-x)Fe(x)S/GO) Nanocomposites for Photocatalytic Degradation of Toxic Pollutants”** in Luminescence journal with impact factor 3.2.

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This book provides a practical guide to designing and creating detailed Boeing aircraft models using 3D printing. It covers the basics of aircraft design, CAD modeling, and 3D printing technologies. Readers will learn about material selection, scaling, preparing STL files, and optimizing for printability. The book also includes troubleshooting tips, and insights into using 3D-printed models for educational and display purposes.



Yokesvaran K
Prasanth S
Sam Daniel Fenny A



Mr. K. Yokesvaran, Assistant Professor, Dept of Aerospace Engineering at Agni College of Technology, Tamil Nadu, India. He has 11 years of teaching experience in the areas of Composite Materials, Aircraft Structures, Vibration and Aeroelasticity, and Finite Element Analysis. He is currently pursuing research in Material Characterization Metallurgy.

DESIGN OF 3D PRINTED BOEING 787-9 DREAMLINER AIRCRAFT MODEL

A Study in Innovation and Precision



Mr. Yokesvaran K, Assistant Professor in the Department of Aerospace Engineering, has published a book titled **“Design of 3D Printed Boeing 787-9 Dreamliner Aircraft Model”** with Lambert Academic Publishing.

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This study focuses on the optimized design and analysis of an amphibious flying wing Unmanned Aerial Vehicle (UAV). The innovative design integrates aerodynamic efficiency, stability, and operational versatility for both aerial and aquatic environments. Computational tools were utilized to refine the air frame and hydrodynamic features, ensuring seamless transitions between land, air, and water operations. Key performance parameters, including lift-to-drag ratio, structural integrity, and buoyancy, were evaluated to enhance functionality. The optimized design aims to support diverse applications such as surveillance, search and rescue, and environmental monitoring, showcasing the potential for multi functional UAV systems in challenging terrains.

2/6



Prasanth S
Yokesvaran K
Surenderpaul A



Mr. S. Prasanth serves as an Assistant Professor in Aerospace Engineering at Agni College of Technology, Chennai, Tamil Nadu, India. With a decade of teaching experience, he holds an M.E. in Aerospace Technology from the MIT, Anna University, Chennai, Tamilnadu, India. His areas of interest include Propulsion and Aerodynamics and High Speed Jets.

Optimized Design and Analysis of an Amphibious Flying Wing UAV

Optimized for Air and Water Operations



Mr. Prasanth S, Assistant Professor in the Department of Aerospace Engineering, has published a book titled **“Optimized Design and Analysis of an Amphibious Flying Wing UAV”** with Lambert Academic Publishing

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This is to certify that



RAGUPATHY K

has successfully completed all the requirements for SWAYAM-NPTEL Domain Certification in

Data Science

(Computer Science)

The courses were completed in the period October 2024



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



Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Roll No: NPTELD524200001078

To validate and check scores:
<https://nptel.ac.in/>



Course Details

Course Type	Course Name	Duration	Offering Institute	Course Timeline	Marks Obtained (Out of 100)	QR Code
core	Python For Data Science	4 weeks	IIT Madras	Jul-Aug 2023	69	
core	Data Science for Engineers	8 weeks	IIT Madras	Jan-Mar 2024	62	
core	Introduction to Machine Learning	12 weeks	IIT Madras	Jul-Oct 2024	68	
Elective	Deep Learning - IIT Ropar	12 weeks	IIT Ropar	Jul-Oct 2023	73	
Elective	Reinforcement Learning	12 weeks	IIT Madras	Jul-Oct 2024	54*	
Elective	Learning Analytics Tools	12 weeks	IIT Bombay	Jul-Oct 2023	82	
Total Marks					408	

Criteria for certification in **Data Science Domain**:
The candidate should complete the prescribed 3 core courses and 3 elective courses:

1. Scoring a minimum of ≥ 55 marks in each course and should pass the courses too.
2. Average of all courses in the domain should be ≥ 60 .
3. Sum of the duration of the courses should be ≥ 60 weeks.

* Special exception granted by the committee.



Dr. Ragupathy K, Assistant Professor from the Department of Mechanical and Automation Engineering, has successfully completed all the requirements for the **Swayam-NPTEL Domain Certificate in Data Science (Computer Science)**.

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Dr. Ragupathy K, Assistant Professor in the Department of Mechanical and Automation Engineering, has been recognized as **NPTEL Discipline Star JUL-DEC 2024** from Swayam-NPTEL.



CERTIFICATE OF APPRECIATION TO

M ARUN

for being recognized as NPTEL MOTIVATED LEARNER
JUL-DEC 2024

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

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

NPTEL MOTIVATED LEARNER

Candidate has to appear in atleast 8 exams in Jan 2023 - Jul 2024, passed in 75% of courses appeared, atleast one exam in each of the 4 semesters



Mr. Arun M, Assistant Professor in the Department of Mechanical and Automation Engineering, has been recognized as a **NPTEL motivated 2024** from Swayam-NPTEL Learner JUL-DEC.

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Dr. J. Binu Clara, Assistant Professor, Biomedical Engineering Department has successfully participated and completed the AICTE Training and Learning (ATAL) Faculty Development Program on **“Transforming Healthcare: Recent Advances in Nanotechnology for Medical Application and Radiation Treatment”** at Navarasam Arts and Science College for Women from 03/12/2024 to 09/12/2024.



ATAL/2024/1733062593

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi - 110070

AICTE Training and Learning (ATAL) Academy**Certificate**

It is certified that Mr. Sivaprakash, Faculty members of the AICTE approved institutions of AGNI COLLEGE OF TECHNOLOGY has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on ARTIFICIAL INTELLIGENCE APPLICATIONS IN RENEWABLE ENERGY SOURCES at Jayamukhi Institute of Technological Sciences from 09/12/2024 to 14/12/2024.

ANIL GOTTIMUKKULA
Associate Professor Level (AICTE Institute), Coordinator
Jayamukhi Institute of Technological Sciences

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

Mr. P. SivaPrakash, Assistant Professor, Mechatronics Department, participated in the online ATAL FDP on **“ARTIFICIAL INTELLIGENCE APPLICATIONS IN RENEWABLE ENERGY SOURCES”** organized by Jayamukhi Institute of Technological Sciences from 9/12/24 to 14/12/24.

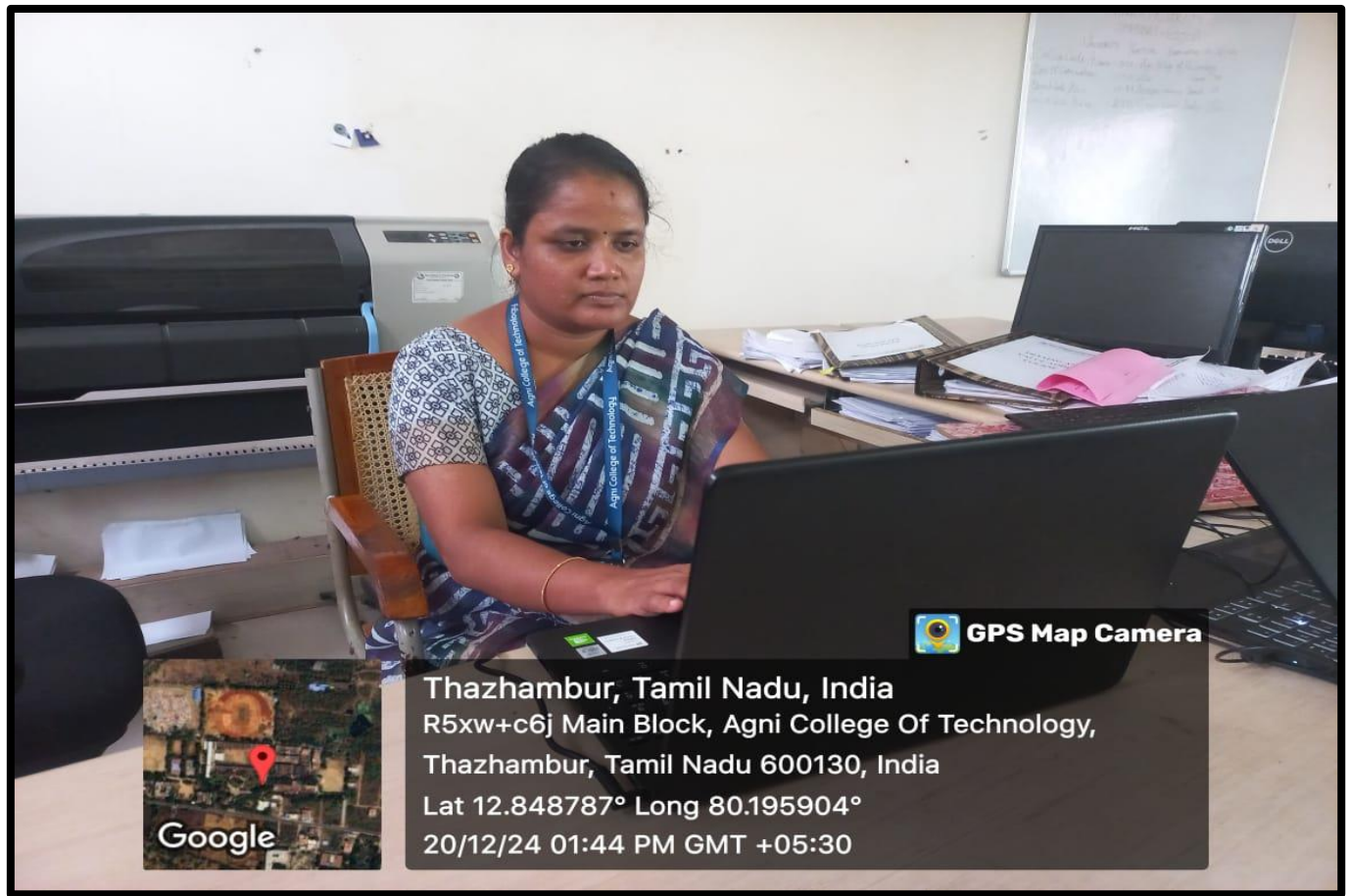
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Dr. Dhanasakkaravarthi B, Assistant Professor in the Department of Mechanical Engineering, has successfully participated & completed the AICTE Training And Learning (ATAL) Academy Faculty Development Program on “**Digital Manufacturing & Design Technology**” at PANIMALAR ENGINEERING COLLEGE from 09/12/2024 to 14/12/2024



Mrs. Elavarasi R, Assistant Professor, Department of Information Technology, attended the Faculty Development Program (FDP) on **“Converging Machine Learning, DevOps and GPU Computing for Breakthrough Innovations”** organized by SRM Valliammai Engineering College, Chennai on 20th December 2024.

Resource Person

Sessions will be handled by eminent persons from reputed Institutions/Industries.

How to apply?

The applicants should register at AICTE-ATAL web portal at the earliest.
Website: <http://www.aicte-india-org/atal>

ELIGIBILITY AND SELECTION

Faculty members from AICTE approved Engineering Colleges can apply. Selection is on "first come first serve" basis. Selection will be intimated through mail and selected participants should confirm their participation.

REGISTRATION:

- No registration fee
- TA/DA will not be provided
- Selected participants should attend the programs for the entire duration through offline mode

Address for Communication:

The co-ordinator
FDP
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
Agni College Of Technology-ACOT
old madhavapuram road, Thalambur
Chennai-600130 Tamil Nadu, India.
E-MAIL: atal@acot.edu.in

ORGANIZING COMMITTEE

Patron
Dr. SRINIVASAN ALAVANDAR
PRINCIPAL,
Agni College Of Technology,
Thalambur.

Co-ordinator
Dr. Ishwarya M.V.B.E., M.E., Ph.D
Associate Professor and Head Of the Department,
Artificial Intelligence and Data Science Department,
Agni College Of Technology,
Thalambur.
MAIL ID: atal@acot.edu.in

Co-Coordinator
Mrs. T. Geetha
Assistant Professor,
Artificial Intelligence and Data Science,
Agni College of Technology,
Thalambur.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

SIX DAYS

FACULTY DEVELOPMENT PROGRAM ON

"AI IN IOT : ENHANCING THE POWER OF SMART GADGETS"

16.12.2024 to 21.12.2024

Sponsored by

AICTE Training and Learning (ATAL) Academy

Agni College of Technology
Chennai-600130 Tamil Nadu, India
Phone: 044-26111944 / 044-26111945
Website: www.acot.edu.in
Email: atal@acot.edu.in

About the college

Agni College of Technology Chennai was established in the year 2001 by Sri Balaji Charitable and Educational Trust with the objective of producing high quality engineers and technocrats. The Engineering college is approved by AICTE, New Delhi, Affiliated to Anna University Chennai, Accredited by National Board of Accreditation, New Delhi and an ISO 9001:2015 Certified Institution. We are ranked in 25th position among 325+ colleges by Anna University in the Nov/Dec 2022 examinations. Also, we were ranked in the top 101-150 band in the India Rankings 2023 by National Institutional Ranking Framework, Ministry of Education, Government of India. Also, all eligible programs are accredited by the National Board of Accreditation and the institution is rated with A+ grade in the National Assessment and Accreditation Council. We look forward to soon becoming an autonomous institution and we have been taking various initiatives to improve the quality and standard of technical education on par with international standards so that our students are able to compete with other students.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

The Artificial Intelligence and Data Science department were founded in 2020 with one undergraduate program affiliated with Anna University approved by AICTE. This course aims to provide the core technologies such as artificial intelligence, data mining and data modelling and give

intensive inputs in machine learning and big data analytics. By the end of this course, the students will gain cross-disciplinary skills across fields such as statistics, computer science, machine learning, and logic, data scientists and will have career opportunities in healthcare, business, e-commerce, social networking companies, climateology, biotechnology, genetics, and other essential areas. The central focus of this programme is to equip students with statistical, mathematical reasoning, machine learning, knowledge discovery, and visualization skills.

FDP THEME

The creation of computer systems that are capable of doing tasks that normally require human intelligence, like speech recognition, problem-solving and decision-making, is known as Artificial Intelligence (AI). The network of actual physical objects and other things integrated with sensors, software, and connections that allow them to gather and share data is known as the Internet of Things, or IoT. The potential of AI and IoT to boost productivity, increase efficiency, and offer more individualised experiences across a wide range of businesses has led to their increasing appeal. AI and IoT will play an increasingly larger role in our daily lives and businesses as technology develops.

Artificial Intelligence (AI) is critical to the Internet of Things (IoT) because it allows devices to gather and process data in real-time, facilitating intelligent decision-making, task automation, pattern recognition, and issue detection, all of which

Increase the effectiveness and precision of IoT systems. Large volumes of data produced by Internet of Things (IoT) devices can be processed by AI algorithms to provide insightful analysis and wise decision-making. Because AI improves the accuracy and efficiency of IoT devices and is constantly learning and adapting to changing environments, it also aids in task automation, pattern recognition, and issue detection in IoT systems.

TOPICS COVERED

- Overview and Use of the Internet of Things
- Artificial Intelligence (AI): Prospects, Development and Challenges
- IoT Architectures and Protocols
- Applied AI and Data Science
- An overview of machine learning and its use in the analysis of medical images
- Smart Sensor Utilisation in IOT
- Smart Cities & Homes: IOT Technology
- AI Implementation (Workshop)
- IoT Privacy and Security
- IoT using Arduino and Raspberry Pi (Practical Session)

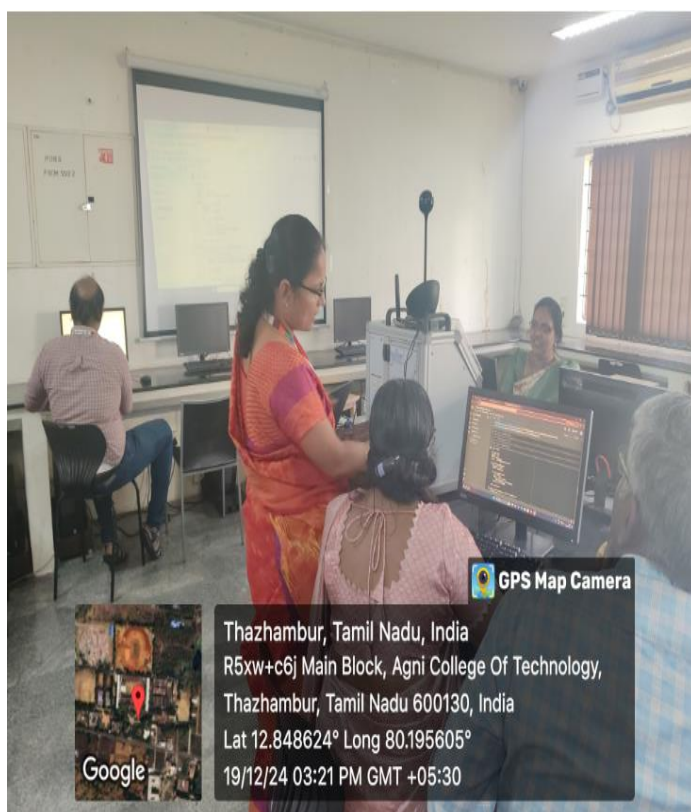
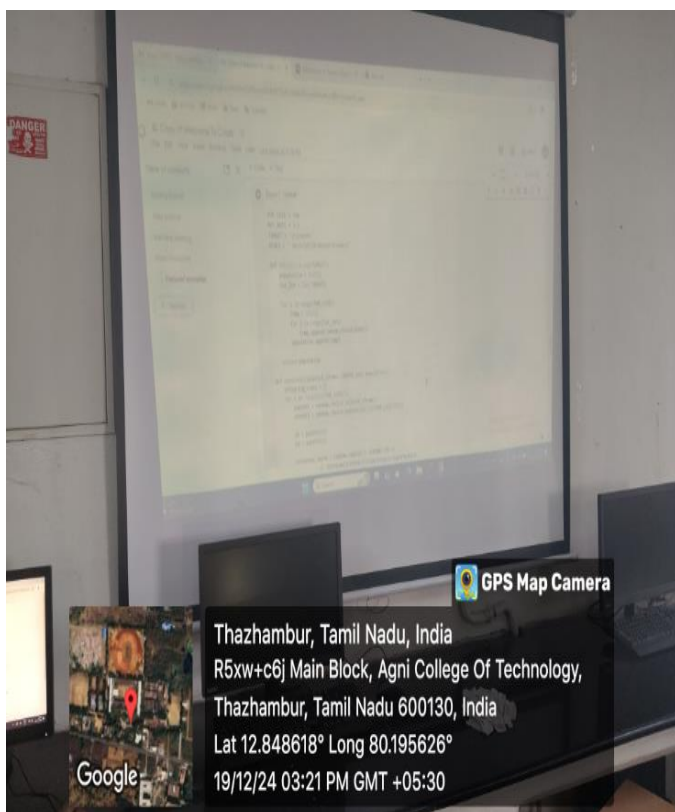
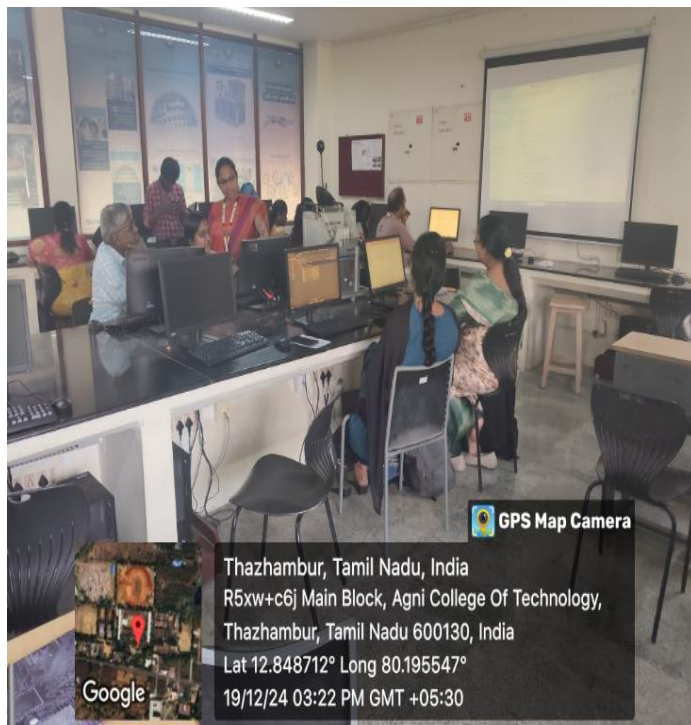
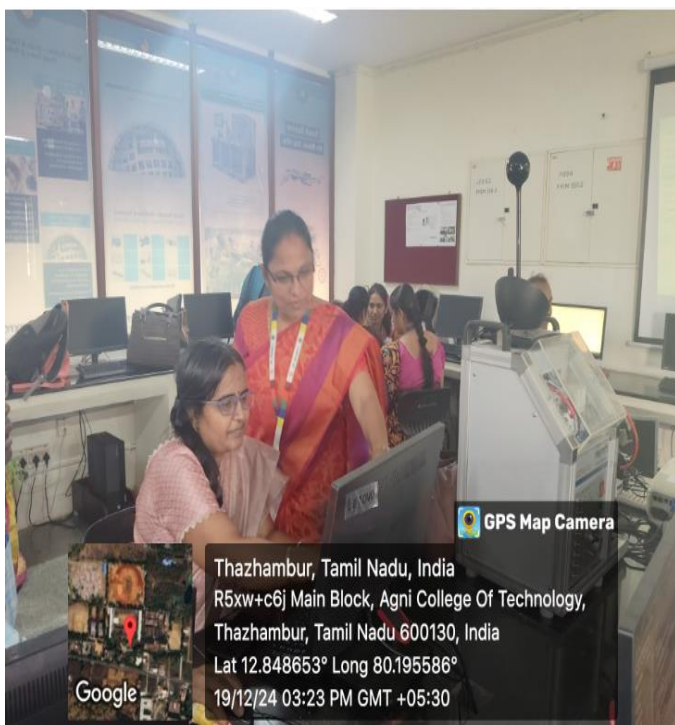
The Department of AIDS from Agni College of Technology, in collaboration with the AICTE ATAL Academy, is organizing a 6-day Faculty Development Program on **"AI in IoT: Enhancing the Power of Smart Gadgets"** from 16.12.2024 to 21.12.2024. The program is coordinated by **Dr. Ishwarya M.V., Associate Professor and Head of the Department, AIDS**, and **Mrs. T. Geetha, Assistant Professor, AIDS**. On the 3rd day of FDP, the Resource person, **Dr. Ramya. R, Associate Professor, St. Joseph College of Engineering** has delivered an insightful session on **"AI Implementation"** from 1 pm – 4 pm on 19.12.2024.



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As part of the **ATAL Faculty Development Program**, all participants visited **Garuda Aerospace** from **10 am to 12 pm** on **20.12.2024**. The visit proved to be highly informative and enriching for everyone. The experts at Garuda Aerospace provided a comprehensive explanation of their innovative products, leaving the participants thoroughly impressed and delighted with the experience.



Dr. P. Balakrishnan, Assistant Professor, Department of Science and Humanities (Physics) has conducted the class activity on **Crystallography** for Section-J (IT-B) students held on 17th December 2024.



Dr. P. Murugan, Head of the Department, **Department of Chemical Engineering** has conducted a department meeting on 20th December 2024. The meeting focused on conduction of semester projects including the allocation of guides, selection of relevant project topics, and ensuring the availability of necessary resources and facilities and the timeline allocation for project reviews and evaluations to streamline the process, NBA file completion and review, and preparation of syllabus for BOS.