



HINDUSTHAN

INSTITUTE OF TECHNOLOGY



DEPARTMENT OF
COMPUTER SCIENCES
AND ENGINEERING



THE CSE DEPARTMENT FOSTERS INNOVATION AND TECHNICAL EXCELLENCE THROUGH ADVANCED CURRICULUM, EXPERT FACULTY, MODERN LABS, AND INDUSTRY COLLABORATION, PREPARING STUDENTS FOR SUCCESSFUL CAREERS IN COMPUTING, AI, AND EMERGING TECHNOLOGIES.

WINDOWZ

2023-2024

MANAGING TRUSTEE
SMT. T.R.K. SARASUWATHI

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DR. K.PRIYA

PRINCIPAL
DR. C.NATARAJAN

CHIEF EDITOR
DR. A.JAMEER BASHA
**HEAD OF THE
DEPARTMENT / CSE**

CO-EDITORS
MR.DEVENDRAN.M
MR.MURUGAN.M

MESSAGE FROM HEAD OF THE DEPARTMENT

DR. A.JAMEER BASHA



It is with great pleasure that I present this edition of the Department of Computer Science And Engineering magazine, a reflection of the academic spirit, innovation, and collective efforts that define our department.

This magazine captures the essence of these efforts. It highlights the talent, creativity, and resilience of our students, and the unwavering support and mentorship provided by the faculty. Each article, project, and achievement featured here stands as a testimony to our shared commitment to excellence. I take this opportunity to thank every contributor and the editorial team for their dedication. I also express my sincere gratitude to the management and leadership for their continued support and encouragement.

Let this magazine serve as both a celebration of the present and a motivation for the future. Together, let us continue striving toward academic excellence and innovation.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

About the department

Department of Computer Science and Engineering has started in the year of 2007. It is established with the vision to provide high-quality education and promote cutting-edge research. The department offers a comprehensive curriculum that blends theoretical foundations with practical applications in computing. The department has well equipped laboratories that provide students with hands-on experience and practical exposure. Department of CSE has been recognized as the Research Centre from the Centre for Research, Anna University.



vision

To nurture competent Computer Science Engineers who possess the ability to contribute to global projects and collaborations with an emphasis on fostering innovation, research, and development through the pursuit of academic excellence and high standards of teaching and research focusing on ethical conduct and social responsibility, integrating sustainability principles and instill a passion lifelong learning.

MISSION

MD1: To deliver Academic Excellence through the implementation of outcome-based education, extensive research, and the adoption of innovative practices.
MD2: To provide best practical experience through Interdisciplinary Approach, Industrial Collaborations and State-of-the-Art Facilities
MD3: To produce socially responsible engineering graduates by providing them with value-based education and fostering their continuous professional development.

PROGRAMME EDUCATIONAL OBJECTIVE

PEO1: Graduates will demonstrate proficiency in core computer science concepts, theories, and principles to analyze, design, and develop innovative solutions to complex engineering problems to succeed in diverse computing industry sectors adapting to emerging technological trends.

PEO2: Graduates will uphold high ethical standards and demonstrate social responsibility in their engineering practice, function effectively in multidisciplinary teams to collaborate and achieve common goals and engage in continuous learning and professional development.

PEO3: Graduates will exhibit an entrepreneurial mindset, actively pursuing opportunities to develop innovative computer science solutions, services, and products as well as effectively lead and manage projects in the field

PROGRAMME SPECIFIC OUTCOMES

PSO1: Ability to apply programming skills in various languages and implement algorithms and data structures to solve computational challenges.

PSO2: Ability to design, develop, test, and integrate software and hardware components to construct effective and efficient computer-based systems.

FDP/STTP ORGANIZED BY THE DEPARTMENT

**FDP on Outcome Based Education (OBE)
and Enhancing Quality of Teaching
Learning Process (5 Days)**

17.07.2023

TO

21.07.2023

NAME OF THE SPEAKER & DESIGNATION AND ORGANIZATION



Dr.Karunakaran.K
Professor and Chief Executive
Officer
Hindusthan Educational
Institutions
Coimbatore.

Dr.V.Evelyn Brindha
Professor
Department of EEE
Karunya Institute of Technology and
Sciences
Coimbatore.

Dr. Gowri sankar.C
Professor and Head
Department of ECE
K.S.R College of Engineering
Tiruchengode.

Dr.Sethuraman. M.G
Professor
Department of Chemistry
The Gandhigram Rural Institute –
Deemed University.
Dindugal.



Mr.Lourdusamy.A
Head & Associate Professor
Department of Mathematics
St.Xavier's College
Palayamkottai, Tamilnadu



LIST OF EVENTS/PROGRAMS ORGANIZED

- Seminar on “Green Computing and Sustainable IT” 23.06.2023
- Seminar on “Methodologies to Attain Higher Ranking and Research Activities” 15.07.2023
- Hands on Workshop “Virtual Lab – An Learner Perspective” 21.08.2023
- Internal Smart India Hackathon 2023
- Motivational Session by Successful Innovators. 12.09.2023
- Exposure and Field Visit for Problem Identification 11.10.2023
- Workshop on “Cyber Security” 13.10.2023
- Data Science and Big Data Analytics under Capgemini women Transformation Program 19.10.2023
- Workshop on “Entrepreneurship and Innovation” as career opportunity 07.11.2023
- National Educational Day 08.11.2023
- National Educational Day 11.11.2023

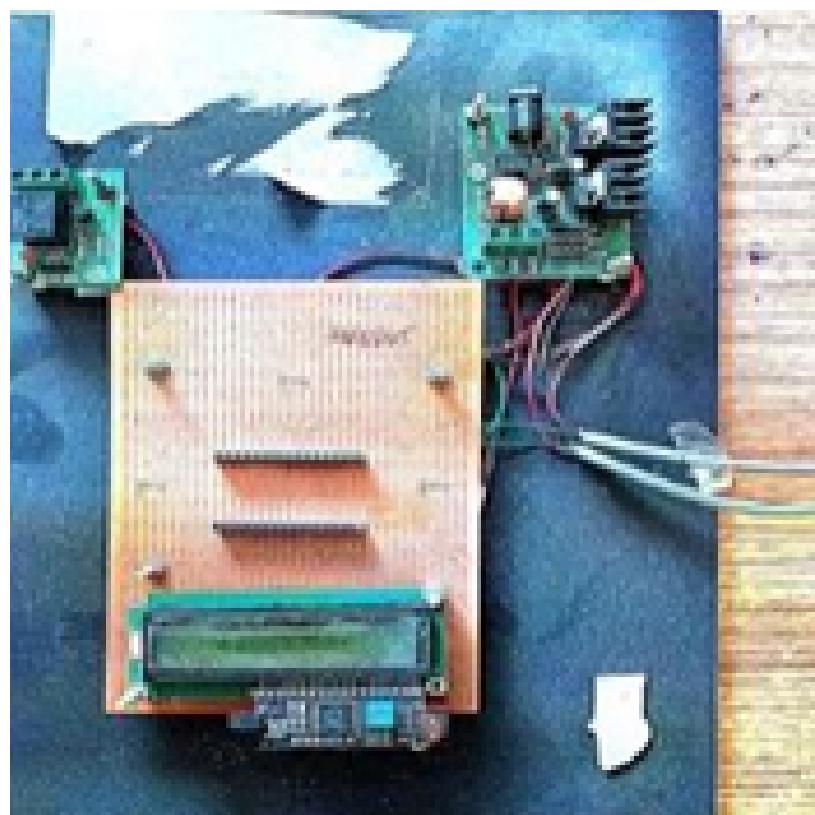


WORKING MODELS / PROTOTYPE DEVELOPED BY THE FACULTY

Soil Quality Testing using IoT is a smart farming solution that uses sensors to monitor soil moisture, temperature, pH, and nutrients in real time. Data is sent to the cloud and displayed on a dashboard, helping farmers make informed decisions, improve crop yield, and promote sustainable agricultural practices.



DR.MAHESHKUMAR.N.B



**SOIL QUALITY TESTING
USING IOT**

FACULTY CERTIFICATION OF MOOCs THROUGH SWAYAM, ETC.



INTRODUCTION TO INTERNET OF THINGS



CLOUD COMPUTING



INTRODUCTION TO INTERNET OF THINGS



INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS



INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS



ACCREDITATION AND OUTCOME BASED LEARNING



INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS

FACULTY CERTIFICATION OF MOOCs THROUGH SWAYAM, ETC.



MRS. NISHANANDHINI.A



PYTHON FOR DATA SCIENCE



MRS.RATHIKA PRABHU



PYTHON FOR DATA SCIENCE



MR. UTHAYAKUMAR.J



GETTING STARTED WITH
MONGODB ATLAS

FACULTY INTERNSHIP/INDUSTRY COLLABORATION HIGHLIGHT



MRS. C.E. RAJAPRABHA – INDUSTRY COLLABORATION WITH IBM

- Program Attended: IBM SkillsBuild – In-Person Faculty Buildathon on Cloud Application
- Organized By: IBM
- Mode: Online
- Duration: 23rd August 2023 to 27th August 2023

Key Outcomes:

1. Gained hands-on experience with IBM Cloud and Red Hat OpenShift platforms.
2. Strengthened personal and institutional credibility in Cloud Computing and DevOps domains.

This collaboration reflects our faculty's continuous commitment to upskilling and staying updated with industry trends, which in turn enhances the academic ecosystem for our students.

FACULTY PATENT DETAILS

Dr.MaheshKumar.N.B

LIST OF PATENTS FILED/GRANTED:

- 1.IoT and AI Based Smart Home Automation using Wi-Fi through Android Apps from Smartphone
 - Application No: 202321047600
 - Date of Filing: 14.07.2023
 - Status: Published
- 2.Device to Predict Cardiovascular Attack
 - Application No: 397144-001
 - Date of Filing: 09.10.2023
 - Status: Design Granted
- 3.Wearable ECG Monitoring Device
 - Application No: 399703-001
 - Date of Filing: 10.11.2023
 - Status: Design Granted
- 4.Detection and Classification of Eye Cancer using Deep Learning Techniques
 - Application No: 202341062322
 - Date of Filing: 15.09.2023
 - Status: Published
- 5.AI-based Safe Healthcare System for Fertility Preservation for Young Women with Breast Cancer using Cloud and ML Algorithms
 - Application No: 202311064995
 - Date of Filing: 27.09.2023
 - Status: Published

Dr. Thangamani. M

LIST OF PATENTS FILED/GRANTED:

- 1.Novel Presymptomatic Breast Cancer Detection Device
 - Application No: 397731-001
 - Date of Filing: 17.10.2023
 - Status: Design Granted

Dr. Ramasamy. S

LIST OF PATENTS FILED/GRANTED:

- 1.A Cloud-Based Platform for Crop Recommendation for Precision Farming
 - Application No: 202341036565
 - Date of Filing: 01.09.2023
 - Status: Published
- 2.Smart IoT-Based System with AI Framework for Air and Water Pollution Prediction
 - Application No: 202241065330
 - Date of Filing: 25.11.2023
 - Status: Published

Dr. Jayasutha. D

LIST OF PATENTS FILED/GRANTED:

- 1.Systems and Methods for Anomaly Detection in Civil Infrastructure Using Context-Aware Computer Vision
 - Application No: 202321049964
 - Date of Filing: 25.07.2023
 - Status: Published

Mr.Periyasamy.P.N

LIST OF PATENTS FILED/GRANTED:

- 1.Smart Healthcare Environment using IoT and ML for Predictive Maintenance and Infection Control
 - Application No: 202341068088
 - Date of Filing: 20.10.2023
 - Status: Published







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