



# HINDUSTHAN INSTITUTE OF TECHNOLOGY



(An Autonomous Institution, Approved by AICTE, New Delhi,  
Affiliated to Anna University, Chennai, Accredited with "A" Grade  
by NAAC)

Valley Campus, Pollachi Main Road, Coimbatore 641 032.



**DEPARTMENT  
OF  
COMPUTER SCIENCE  
AND ENGINEERING**

# WINDOWZ 2023-2024

## MESSAGE FROM HEAD OF THE DEPARTMENT



DR. A.JAMEER BASHA

I am pleased to present this edition of the Computer Science and Engineering magazine, showcasing the innovation, talent, and teamwork within our department. It reflects the creativity of our students, the guidance of our faculty, and our collective pursuit of excellence. Sincere thanks to all contributors, the editorial team, and the management for their support. May this magazine inspire continued growth and achievement.

MANAGING TRUSTEE  
SMT. T.R.K. SARASUWATHI

SECRETARY  
DR. K.PRIYA

PRINCIPAL  
DR. C.NATARAJAN

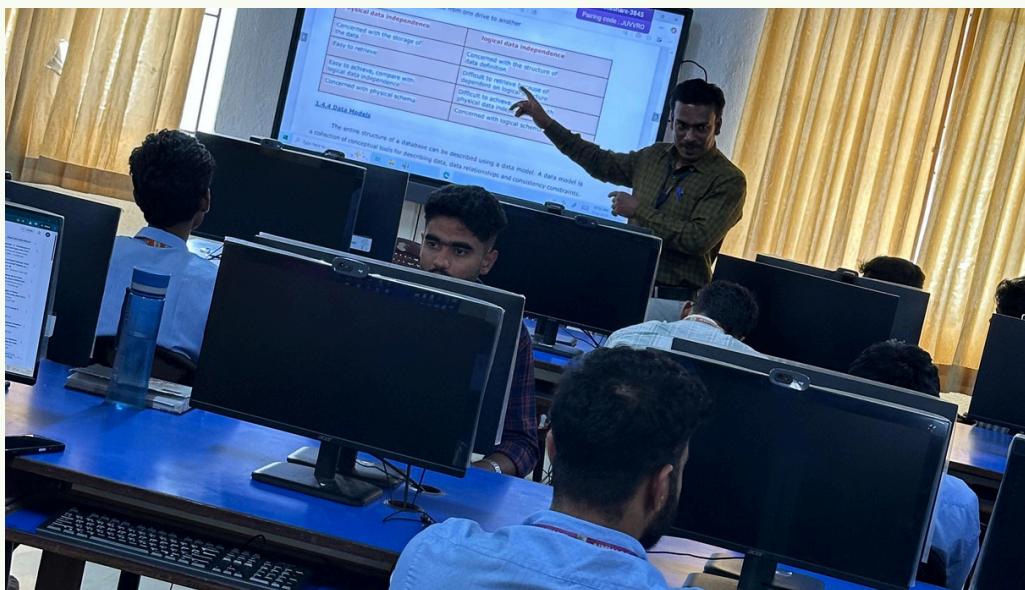
CHIEF EDITOR  
DR. A.JAMEER BASHA  
HEAD OF THE  
DEPARTMENT / CSE

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

# 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.

19.02.2024  
to  
23.02.2024

## FDP/STTP Organized by the Department

### FDP on Microsoft Azure AI Engineer Associate

Name of the Speaker &  
Designation and Organization

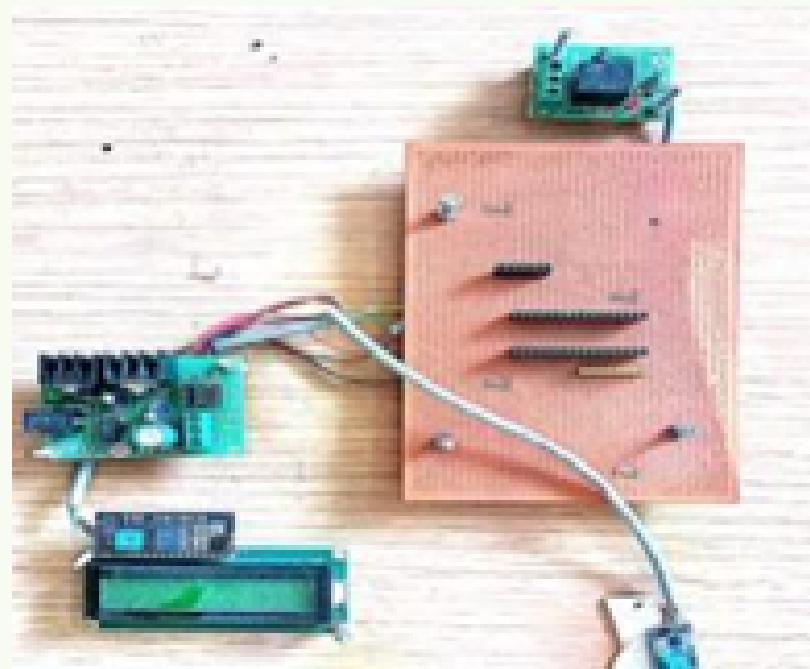
Ms.Abitha P  
Freelancer Technical Trainer  
ICT Academy  
Tamilnadu



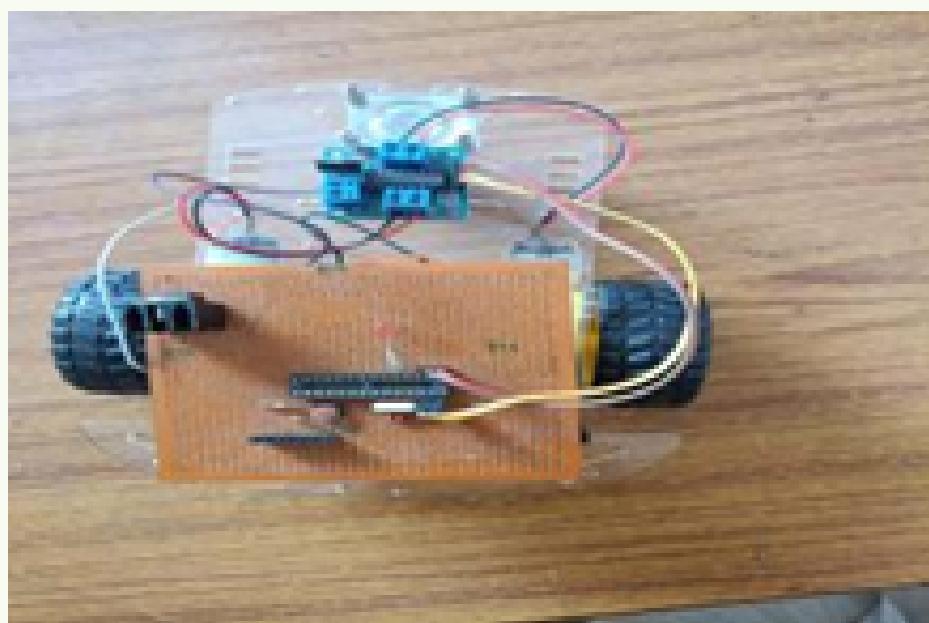
## List of events/programs organized

Webinar on " Become a Shift Left Engineer with DevOps	13.12.2023
Workshop on Design Thinking, Critical thinking and Innovation design	15.12.2023
Workshop on Data Analytics and Visualization Tools	09.01.2024
Yuva Launch and Interaction with Young Brains	20.02.2024
Seminar on “Blockchain Beyond Cryptocurrencies”	06.03.2024
Workshop on Business Model Canvas (BMC)”	14.03.2024
Workshop on Innovation and Entrepreneurship outreach program	15.03.2024
Project Expo	27.03.2024
Skillathon	25.04.2024
Spartanz2K24	16.04.2024

**Dr.SenthilKumar.R**

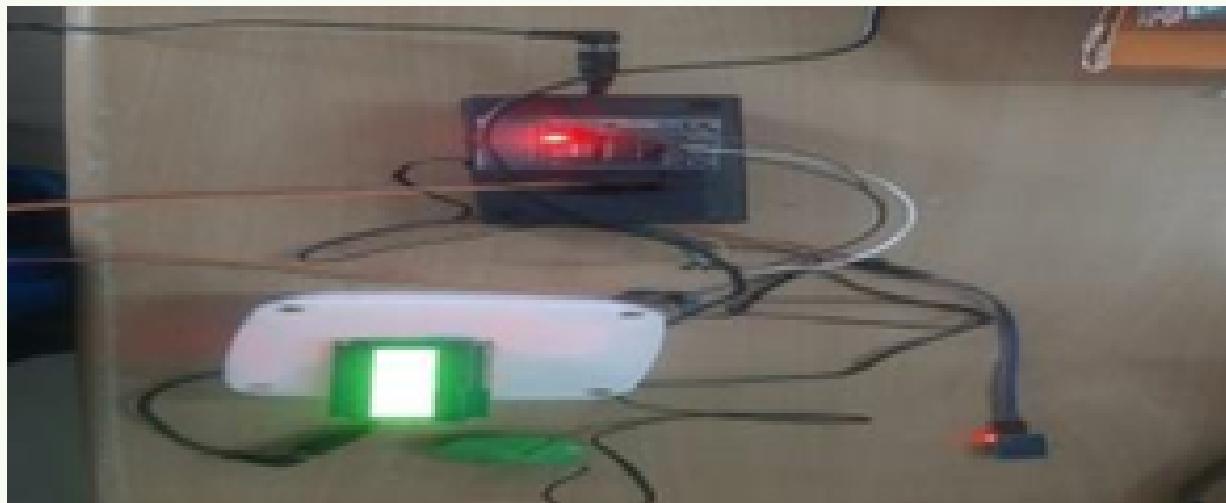


**Rain Detection System**



**Path Finding Robot**

**Dr.Jayasutha.D**



**Monitoring the Progress of  
Labour from Remote area using  
Medical IoT**

# Faculty Certification of MOOCs through SWAYAM

 **Elite**  
**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**DR S RAMASAMY**  
for successfully completing the course

**Research Methodology**

with a consolidated score of **62** %  
Online Assignments **17.5/25** | Proctored Exam **44/75**

Total number of candidates certified in this course: **2928**

Devendra Jaital  
Prof. Devendra Jaital  
Chairperson  
Centre for Outreach and Digital Education, IITM

Feb-Apr 2024  
(8 week course)

Prof. Andrew Thangaraj  
NPTEL Coordinator  
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL24GE21S553806144 To verify the certificate  No. of credits recommended: 2 or 3



## Research Methodology

Dr.Ramasamy.S

 **Elite**  
**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**DR S RAMASAMY**  
for successfully completing the course

**Introduction to Industry 4.0 and Industrial Internet of Things**

with a consolidated score of **60** %  
Online Assignments **20.85/25** | Proctored Exam **39/75**

Total number of candidates certified in this course: **10498**

Jan-Apr 2024  
(12 week course)

Prof. Haimanti Banerji  
Coordinator, NPTEL  
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL24CS34S5653806273 To verify the certificate  No. of credits recommended: 3 or 4



## Introduction to Industry 4.0 and Industrial Internet of Things(IIT-Kharagpur)

 **Elite**  
**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**SENTHILKUMAR**  
for successfully completing the course

**Business Analytics & Data Mining Modeling Using R - Part II**

with a consolidated score of **61** %  
Online Assignments **20.25/25** | Proctored Exam **40.25/75**

Total number of candidates certified in this course: **138**

Prof. Kaushik Ghosh,  
Professor(Chemistry)  
Coordinator CEC

Jul-Aug 2023  
(4 week course)

Prof. Ranjana Pathania,  
Professor (BSEE)  
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

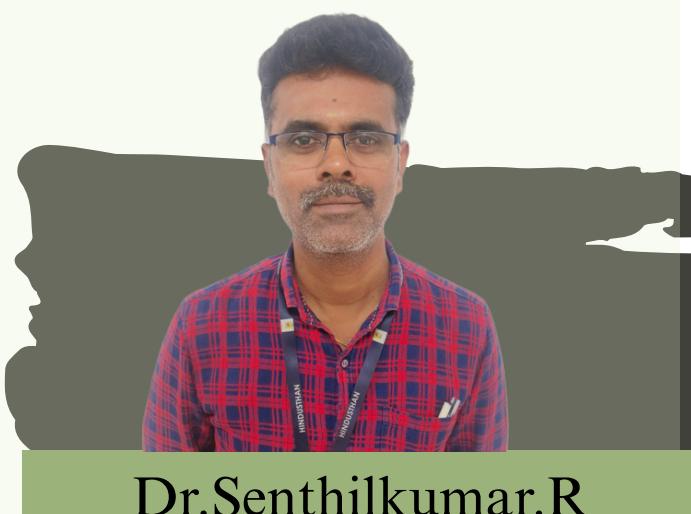
Roll No: NPTEL23MG103S35510626 To verify the certificate  No. of credits recommended: 1 or 2



## Business Analytics and Data Mining Modeling using R



Dr.Ramasamy.S



Dr.Senthilkumar.R

# Faculty Certification of MOOCs through SWAYAM



Jeevitha.P



## NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

JEEVITHA P

for successfully completing the course

### Deep Learning

with a consolidated score of **57** %

Online Assignments **16.94/25** | Proctored Exam **40.5/75**

Total number of candidates certified in this course: **1796**

Devendra Jalihal

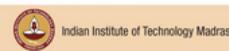
Prof. Devendra Jalihal

Chairperson  
Centre for Outreach and Digital Education, IITM

Jan-Apr 2024

(12 week course)

Prof. Andrew Thangaraj  
NPTEL Coordinator  
IIT Madras



Roll No: NPTEL24CS59S1153800018

To verify the certificate



No. of credits recommended: 3 or 4

## Deep Learning



## NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to

JEEVITHA P

for successfully completing the course

### Introduction to Machine Learning

with a consolidated score of **71** %

Online Assignments **19.5/25** | Proctored Exam **51.28/75**

Total number of candidates certified in this course: **4541**

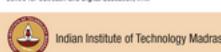
Prof. Andrew Thangaraj

Chair  
Centre for Outreach and Digital Education, IITM

Jul-Oct 2024

(12 week course)

M. Vignesh  
Prof. Vignesh Muthuvijayan  
NPTEL Coordinator  
IIT Madras



Roll No: NPTEL24CS101S652403169

To verify the certificate



No. of credits recommended: 3 or 4

## Introduction to Machine Learning



Mrs.Pavithra.K.S



## NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

PAVITHRAKS

for successfully completing the course

### Introduction to Internet of Things

with a consolidated score of **76** %

Prof. Andrew Thangaraj

NPTEL Coordinator  
IIT Madras

Jan-Apr 2024

Roll No: NPTEL24CS35553802795

Duration of NPTEL course : 12 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.  
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16<sup>th</sup> Nov, 2023, similar to other refresher / orientation courses.  
F.No. AICTE / RIFD / FDP through MOOCs / 2023

## Introduction to Machine Learning

# Faculty Patent Details

## Dr. Ramasamy. S

### List of Patents Filed/Granted:

1. Logistic Tracking Device
  - Application No: 405790-001
  - Date of Filing: 26.01.2024
  - Status: Design Granted
2. Advancing Pedagogy Through ICT: The Potential of Mentoring and Mirrored Practice
  - Application No: 202441035264
  - Date of Filing: 10.05.2024
  - Status: Published

## Mr. Periyasamy. P.N

### List of Patents Filed/Granted:

1. AI and ML: A Model for Enhancing Faculty Performance Reliability
  - Application No: 202441035195
  - Date of Filing: 03.05.2024
  - Status: Published

# Faculty Patent Details

## Mrs.Jeevitha.P

### List of Patents Filed/Granted:

1. An Improved Real-Time Object Detection for Traffic Surveillance Using R-CNN
  - Application No: 202441018913
  - Date of Filing: 14.03.2024
  - Status: Published

## Mr.Uthayakumar.J

### List of Patents Filed/Granted:

1. Elevating Wellness Through Intelligent Nutrition: Leveraging Artificial Intelligence
  - Application No: 202441039240
  - Date of Filing: 20.05.2024
  - Status: Published

# Faculty Patent Details

## Dr. Thangamani. M

### List of Patents Filed/Granted:

1. Intelligent Chatbot for the Banking Sector Using Machine Learning
  - Application No: 202441000426
  - Date of Filing: 03.01.2024
  - Status: Published
2. IoT and ML-Based Weather Monitoring and Prediction System
  - Application No: 202441028598
  - Date of Filing: 08.04.2024
  - Status: Published
3. Implementing CNN Algorithm for Recognizing Face in Attendance
  - Application No: 202441028580
  - Date of Filing: 08.04.2024
  - Status: Published
4. Smart Reheb: A Gamified Recovery Approach Using XGBOOST Gradient
  - Application No: 202441030795
  - Date of Filing: 17.04.2024
  - Status: Published
5. AI-Enhanced Monitoring Solutions for Brain Tumor Patients
  - Application No: 202441042007
  - Date of Filing: 30.05.2024
  - Status: Published
6. COGNICARE: A DL-Based Diagnosis Model for Cognitive Impairment
  - Application No: 202441039245
  - Date of Filing: 20.05.2024
  - Status: Published
7. Automated Plastic Sorting System Utilizing DL Technology
  - Application No: 202441039288
  - Date of Filing: 20.05.2024
  - Status: Published
8. Automating Waste Detection and Management with DL Technologies
  - Application No: 202441039289
  - Date of Filing: 20.05.2024
  - Status: Published

# Faculty Patent Details

## Dr. Thangamani. M

### List of Patents Filed/Granted:

1. IoT and Artificial Intelligence Based Detection and Prevention of Plant Disease with Smart Drip Irrigation System using Blockchain and Deep Learning
  - Application No: 202441017814
  - Date of Filing: 12.03.2024
  - Status: Published
2. Robot for Determining Crop Yield
  - Application No: 413621-001
  - Date of Filing: 15.04.2024
  - Status: Design Granted
3. 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



# HINDUSTHAN

## INSTITUTE OF TECHNOLOGY



### HINDUSTHAN INSTITUTE OF TECHNOLOGY

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