

JERUSALEM COLLEGE OF ENGINEERING

(An Autonomous Institution)

(Approved by AICTE, Affiliated to Anna University)

Accredited by NBA and NAAC with 'A' Grade)

Velachery Main Road, Narayanapuram, Pallikaranai, Chennai – 600 100



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NEWSLETTER

JULY – DECEMBER 2024

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VISION OF THE DEPARTMENT

The Department of computer science and engineering is dedicated to be a center of excellence, in producing graduates as ethical engineers, innovative researchers, dynamic entrepreneurs and globally competitive technocrats.

MISSION OF THE DEPARTMENT

- To craft students to be competent professionals with value based education, innovative teaching and practices.
- To enhance student 's soft skill, personality and ethical responsibilities by augmenting in-plant training, value added courses and co curricular activities.
- To facilitate the student as researchers by widening their professional knowledge through continuous learning and innovative projects.
- To produce dynamic entrepreneur through interaction with network of alumni industry and academia and extracurricular activities.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates will apply engineering basics, laboratory and job oriented experiences to devise and unravel engineering problems in computer science engineering domain.

PEO2: Graduates will be multi-faceted researcher and experts in fields like computing, networking, artificial intelligence, software engineering and data science.

PEO3: Graduates will be dynamic entrepreneur and service oriented professional with ethical and social responsibility.

PEO4: Graduates will ingress and endure in core and other prominent organization across the globe and will foster innovation.

PROGRAM SPECIFIC OBJECTIVES (PSOs)

PSO-I: The ability to understand, analyze and to develop the design related to real-time system such as IOT, secured automated systems, machine vision, computer vision and cognitive computing with various complexities, providing orientation towards green computing environment.

PSO-II: The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product.

PSO-III: The ability to innovate, introduce and produce socially relevant products to facilitate transformation of society into a digitally empowered knowledge economy, thereby to chart a successful career with a new dimension to entrepreneurship.

PROGRAM OUTCOMES (POs)

PO1: Engineering knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/development of solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

SYMPOSIUM / CONFERENCE / WORKSHOPS /SEMINARS ORGANIZED BY THE DEPARTMENT



Institution of Engineers (IEI) and Innovation Club has conducted hands on seminar on “**Web Automation Using Selenium**” for II & III-year (CSE & CSBS) students by Mr. Kaviraj Natarajan, UST Global, Chennai on 19.08.2024 organized by Mrs. Sinduja. B, Mrs. H. Mercy and Ms. Nivetha. K (III CSE -A).



Inauguration of CSI Student Chapter and Guest Lecture on benefits of CSI Membership by Dr. M. Senthil Kumar, Chairman of the CSI Kancheepuram Chapter and HOD of Cyber Security at SRM Valliammai Engineering College, Chennai on 08.08.2024 organizing by Mrs.M.Vanitha Sheba and Mrs.S.Devipriya.



The Internal hackathon “**INNOVEXON 2024**” on 04.09.2024, in collaboration with the Computer Society of India (CSI), conducted the “**Smart India Hackathon (SIH) 2024**” judged by t5 | Page he Jury Prabha K K, Senior Software Engineer at Sopra Steria. Organized by Mrs.M.Vanitha Sheeba, Ms. C. Needhu and Ms. M. Aishwarya.



In association with CSI, the Coding club, is conducting the **AL-CODE** event on 21.08.2024 which was organized by Mrs.M.Vanitha Sheeba.



NCSE Inauguration function held on 16.08.2024 and the resource person was Mr.R.Balagururajan, Business Operations Consultant, Bluechip Solutions Plus, Private Limited, Chennai organised by Dr.T. Dhanalakshmi.



In association with Innovation club organized Two Days Workshop on **Cyber Resilience and App Inventor** on 7.10.2024 and 8.10.2024 by Mr.P.Hariprasath, Security Engineer, Comcast India, Chennai. Mr.Subham D Vaya, Lead SDET, QA mentor, Capgemini India Pvt. Ltd. were the resource persons and organized by Ms.S.Devipriya and Ms.H.Mercy.



Seminar on **Networking, Servers and Cloud Solutions** by Mr.S.Dhanasekaran, Cyber Security Architect, Honeywell Technology Solutions, Bengaluru for II CSE and CSBS students on 20.09.2024 organized by Mrs.P.Mahalakshmi and Mrs.M.Maria Jeraldin Sindhia.



Guest Lecture on **Software Process Framework and Selenium** by Mr.B.Neelakandan, Senior Product Manager AT&T Technologies for the students on 21.08.2024 organized by Mrs. P. Mahalakshmi.



In association with **NCSE conducted a CorPros** for II and III years students by NCSE Office Bearers and Dr.T.Dhanalakshmi on 09.09.2024.

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
In association with
NCSE & MULTIMEDIA CLUB
Organizes a Technical Event on

ZigKross

30.9.24 & 01.10.24
2:00 PM - 3:30 PM
FOURTH FLOOR CSE LAB
PARTICIPANTS: SECOND YEAR STUDENTS

Mahalakshmi B.
NCSE President
Jobi Anushadan
Multimedia Club President
Dr. Maya Eapen
HOD-CSE

Dr. T. Dhanalakshmi
NCSE Coordinator
Dr. D. Divya
Multimedia Club Coordinator
Dr. Ramesh S.
Principal
Dr. M. Mala
Chairperson

In association with **NCSE conducted a ZigKross** for II and III years students by NCSE Office Bearers and Dr.T.Dhanalakshmi on 30.09.2024.



Industrial visit to Indian Space Research Organization, Bengaluru for II year and III year CSBS students and visited on 06.09.24.



Industrial visit to Milma Dairy plant at Kochi, Ernakulam for IV year CSBS students and visited on 22.06.24.



Industrial visit CIIC at **B. S. Abdur Rahman Crescent Institute of Science and Technology** for IV year students and visited on 22.07.24.



Industrial visit CIIC at **B. S. Abdur Rahman Crescent Institute of Science and Technology** for III year CSBS students and visited on 15.02.24.

SANCTIONED FUNDED PROJECTS

Sl. No	Name of the Investigator	Title	Amount	Year applied
1	Dr Maya Eapen	Electronic gadgets- Cockpit (IoT Enabled Device)	7500	2024

PATENT FILED

Sl. No	Name of the Investigator	Title	Year applied
1	Ms.C.Needhu	Encryption Techniques for Secure Data Transmission Between IoT Devices and Cloud Servers	14.10.2024

BOOKS/ BOOK CHAPTERS AUTHORED BY FACULTY MEMBERS

Sl. No	Name of the Author	Name of the Book	Publisher
1	Ms.C.Needhu	Sustainable development using private AI	Taylor and Francis. ISBN-13: 978-1032716725, ISBN-10: 103271672X
2	S.Gayathri	Ethical Hacking	Alpha International Publication.ISBN NO:978-93-5762-592-0

PUBLICATIONS OF PAPERS IN CONFERENCES

Sl. No	Name of the Author	Title	Name of the Journal	Date
1	Dr.D.Divya	Revolutionizing Innovation Design and Development of Human Detection and Rescue Robot based on Internet of Things Association	IEEE Publisher	Aug 2024
2	Dr.D.Divya	Advancing Agriculture with CNN for Timely Leaf Disease Detection and Enhance Crop Production	Mapna Journal of Sciences	Nov 2024
3	Mr. N. Javed	Securing the Future: AI-Driven IoT and Its Security Imperatives	ESN Publication, India & Saveetha (SIMATS)	Aug 2024
4	Mrs. J.Rajeshpushpa	A Comprehensive Survey on Parkinson's Disease Detection using Various Approaches	ESN Publication, India & Saveetha (SIMATS)	Aug 2024

**OFFLINE FDPS ATTENDED BY FACULTY MEMBERS / ANY SPECIFIC
FDPS**

Sl. No	Name of the Author	Title	Name of the Journal	Date
1	Dr.D.Divya	HBO-BiLSTM: Hybrid Bat Optimization based Bidirectional Long Short-Term Memory for Secure Web Service Recommendation	Wireless Networks: Springer Nature	Nov 2024
2	Dr.D.Divya	Border Collie Optimization Algorithm for Twitter Sentiment Classification based on enhanced Elman Spike Neural Network	Inder Science Publisher: International Journal of Mobile Communications	Dec 2024
3	S. Gayathri	Modeling and Customer churn predicting using Deep learning	AIP Conference (scopus indexed)	August 2024
4	S. Gayathri	Prevention Of Movie Piracy Using Hashing Algorithms	AIP Conference (scopus indexed)	August 2024
5	S. Gayathri	Smart Ventilator Using Esp32 Microcontroller And Embedded C	AIP Conference (scopus indexed)	August 2024
6	Dr. Maya Eapen	Enhancing Environmental Safety: Design and Development of IoT based Air Quality Monitoring System	IEEE Xplore	September 2024
7	Dr. Maya Eapen	COVID-19 Mental Health Impact Analysis using Ensemble-based Classifier	The Open Public Health Journal	September 2024
8	Dr. Maya Eapen, Mrs.H.Mercy	Smart Gadgets Cockpit Using IOT	IEEE Xplore	September 2024
9	Dr.T. Dhanalakshmi	Knowledge Graph Generation for Research Articles	Mapana Journal of Sciences	November 2024

ONLINE FDPs ATTENDED BY FACULTY MEMBERS

Sl. No	Name of the Faculty	Title	Name of the Institution	Date
1	Mrs. S.Devipriya Mrs M. Vanitha Sheba	Navigating the future: Trends shaping the next decade	School of Computing, Department of Computer science and engineering, Sathyabama University, Chennai	15.07.2024 to 20.07.2024
2	Ms.C.Needhu Ms. J.Rajeshpushpa	AI impact on transforming software, robotics, electrical, electronics & mechanical fields	Dhaanish Ahmed College of Engineering	05.08.24 to 10.08.24
3	Dr D.Divya	Empowering Digital Transformation with Cutting Edge Technologies	Sri Kanyaka Parameswari	16.09.2024 to 20.09.2024
4	Dr D.Divya	Cryptography And Network Security	NITTTR, Chandigarh	16.09.2024 to 20.09.2024
5	Ms.R.Chitra Devi	Three Days Fdp on AI Infused Digital Education- Transforming the Future of Teaching and Education	Tagore College of Arts and Science	08.10.2024 to 10.10.2024
6	Ms.R.Chitra Devi	Microsoft Power BI	ICT Academy	21.10.2024 to 25.10.2024
7	Ms.M.Vanitha Sheba, Ms.S.Devipriya	Tech- Synergy: Cloud driven AI&IOT Solutions	Sathyabama Institute of science and Technology	30.09.24 to 04.10.24
8	Ms.K.shenbagavalli	How to improve college Ranking through effective implementation of OBE	"Chase Research and Development Department"	24.08.24
9	Ms.H.Mercy	National Conference on Cyber Security	Tamil Nadu Open University	30.08.24

10	Ms.J.Rajeshpushpa	Guest Lecture on Theory to Practise and Lab Visit	IIT Madras	31.08.24
15	Ms.K.Shenbagavalli	ATAL Online AI and Digital Technologies for Sustainable Healthcare and Medical Technologies	Institute of Technology Nirma University	25.11.2024 & 30.11.2024
16	MS.J.Rajeshpushpa	Pals Industry Assisted Deep Learning Series Llm	IIT PALS	12.09.2024 14.09.2024 19.09.2024 21.09.2024 26.09.202
17	MS.J.Rajeshpushpa	Pals Aware Webminar Enterprenuership	IIT PALS	03.09.2024 10.09.2024 13.09.2024

CERTIFICATE COURSES COMPLETED BY FACULTY MEMBERS

Sl. No	Name of the Faculty	Title	Name of the Institution	Date
1.	M.Aishwarya	Digital Image Processing	NPTEL	Jul-Oct 2024
2.	M.Aishwarya	Fundamentals of Artificial Intelligence	NPTEL	Jul-Oct 2024
3.	N Javed	Introduction to Intellectual Property	NPTEL	Jan- June 2024

MOUs

Sl. No	Name of the Institution	Date
1.	Tech Force Academy	28.02.2024

EDITORIAL BOARD

STUDENT COORDINATORS

Ms.Mahalakshmi R, IV CSE A

Ms.Keerthi Vasan S J, IV CSE A

Ms.Ragavi S, IV CSE B

Ms.Signetagloria F, IV CSE B

STAFF COORDINATOR

Dr.D.Divya, Associate Professor ,CSE