





2023-2024 (ODD)

NEWSLETTER



MISSION

aim transformative Computer Science and Engineering education that integrates theory with practical skills, fostering innovation and lifelong learning. Our focus includes interdisciplinary research, ethical sustainable solutions, and active industry collaboration. We strive to enhance student employability and contribute meaningfully to technological and societal progress.

VISION

To pioneer in the emerging areas of Computer Science and Engineering education and research, fostering innovation, ethical values, sustainable technologies that advance the digital world and improve societal well-being.

Dr.R.Geetha Professor & HoD

PROGRAMME EDUCATIONAL OBJECTIVES

PEO 1: Graduates shall have professional competency in the field of Computer Science and

Engineering for pursuing higher education, research or as entrepreneurs.

PEO 2: Graduates shall work in a business environment with ethical standards, leadership

qualities and communication necessary for engineering principles.

PEO 3: Graduates shall adapt to emerging technologies and respond to the challenges of the environment and society forever.

"Education opens the windows of the mind to let the light of understanding in."

EDITOR IN CHIEF

Dr.R.Geetha

Mr.C.Balakrishan

EDITORS

Dr.S.Sivakumar Dr.M.Kavitha

INDUSTRIAL VISIT



Understanding India's Space Capabilities

- Students were introduced to ISRO's history, mission objectives, and global achievements in space exploration.
- Learned about India's key milestones like Chandrayaan, Mangalyaan, and satellite launch missions.
- Gained insight into how ISRO contributes to communication, meteorology, navigation, and national development.



Exposure to Satellite and Rocket Technology

- Observed detailed models and demonstrations of launch vehicles, satellites, and propulsion systems.
- Understood the engineering behind PSLV,
 GSLV, and satellite telemetry operations..

Inspiration and Career Guidance

 Students received guidance on career opportunities in space research, aerospace, and allied sciences.





SMART MANUFACTURING AND INDUSTRY 4.0

- Students were introduced to the concept of Industry 4.0, integrating automation, data exchange, and smart technologies in manufacturing.
- Explored how TANSAM is revolutionizing the manufacturing sector using IoT, AI, robotics, and advanced analytics.
- Understood the importance of digital transformation and smart systems in boosting industrial efficiency.

HANDS-ON EXPOSURE TO ADVANCED TECHNOLOGIES

- Visited live demonstration units showcasing CNC machines, collaborative robots (cobots), and digital twin systems.
- Learned how technologies like 3D printing, AR/VR, and smart sensors are used in modern manufacturing environments.
- Witnessed real-time monitoring and predictive maintenance systems that ensure operational excellence.





ORIENTATION AND INDUSTRY COLLABORATION

 Gained insights into interdisciplinary academic programs and research opportunities offered at IITDM.

GUEST LECTURE

NATIONAL EDUCATION POLICY

- The guest lecture was organized by the Department of Computer Science and Engineering for the CSE students.
- To help them gain insights on how the policy will influence their academic and professional growth
- The Lecture was organized on 29.07.2024.

The Lecture was held on 02.08.2024.



National Education Policy - 2020 Registration of the state of the sta

RECENT TRENDS & OPPORTUNITIES

- The guest lecture was organized by the Department of Computer Science and Engineering for III Year students.
- Explains about the Emerging opportunities in the field of Data and Computer Communications

EXPERIMENTING FORMAL LANGUAGES USING JFLAP



- The guest session was hosted by the Department of Computer Science and Engineering for III Year CSE students.
- Demonstrations on utilizing JFLAP for automata theory and formal languages.
- The Lecture was organized on 02.08.2024.

AN OVERVIEW ON CYBERSECURITY SPROMPT ENGINEERING



- The guest session was hosted by the Department of Computer Science and Engineering for III Year CSE students.
- An overview on Prompt Engineering, Cyber Security and its role in technologies and development.
- The Lecture was organized on 02.08.2024.

AN OVERVIEW ON CYBERSECURITY & PROMPT ENGINEERING

- The guest lecture hosted by the Department of Computer Science and Engineering for students on 'Advanced Data Structure Concepts (Trees)'.
- The session aimed to strengthen students understanding of complex data structures, preparing them for future coursework and real-world problem-solving scenarios.
- The Lecture was organized on 02.08.2024.



RESOURCE PROVISIONIG USING ELASTIC SCALING FOR CLOUD COMPUTING



- The guest session was organized by the
 Department of Computer Science and •
 Engineering for IV Year CSE students on the topic of 'Resource Provisioning Using Elastic Scaling for Cloud Computing'.
- Students learned how cloud resources automatically adjusted based on demand, ensuring optimal performance and efficient resource use in real-time.
- The Lecture was held on 10.10.2024



ESSENTIALS OF THE CYBERSECURITY

- Department of Computer Science and Engineering for II Year CSE(Cyber Security) students on the topic of 'Essential of Cyber Security'.
- The Lecture was held on 10.10.2024





EMERGING TRENDS IN DATA AND COMMUNICATION TECHNOLOGIES

- Enhanced mobile broadband enabling ultra-fast, low-latency communication for IoT and smart devices.
- Edge and Fog Computing: Moving data processing closer to the source, reducing delay and improving real-time performance.



OPPORTUNITIES FOR RESEARCH & INNOVATION

- Rising demand for secure protocols and encryption methods in data exchange.
- Al-Powered Networks: Integration of artificial intelligence for selfoptimizing and self-healing networks.



CAREER PATHWAYS AND INDUSTRY DEMAND

 High demand for professionals who design and manage scalable communication systems.



NDERSTANDING **ELASTIC** SCALING IN CLOUD COMPUTING

- Explained the concept of *elastic scaling*-the ability to dynamically allocate or deallocate resources based on workload demand.
- difference between Discussed the *horizontal and vertical scaling* and their real-time applications.



TECHNIQUES AND TOOLS FOR RESOURCE PROVISIONING









DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ORGANIZES

GUEST LECTURE

RESOURCE PROVISIONING USING ELASTIC SCALING FOR CLOUD COMPUTING

Time: 11.00 to 12.30pm Participants: IV year CSE Students



HOSTED BY Muneeswaran P Assistant Professor Department of Computer Science and Engineering NIT Calicut



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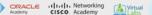
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- Explored tools like *AWS Auto Scaling, Microsoft Azure Autoscale, HPA* and Kubernetes for implementing elasticity.
- Demonstrated *scaling policies*, thresholds. and automation strategies used in cloud resource management.
- Emphasized the importance of *monitoring tools* and analytics in maintaining system performance under fluctuating loads.

WORKSHOP



IEEE WORKSHOP

- Overview of latest cyberattack trends including ransomware, phishing, and zero-day exploits
- Analysis of vulnerabilities in IoT devices and smart infrastructure
- Case studies of recent high-profile cyberattacks and their impact





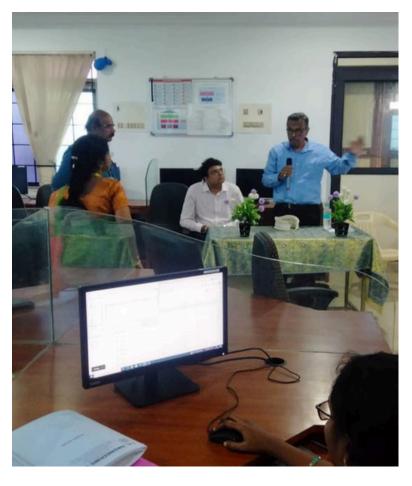
CYBERSECURITY POLICIES, STANDARDS, AND COMPLIANCE

- Overview of international cybersecurity regulations and standards (e.g., GDPR, NIST)
- Best practices for organizational cybersecurity governance and risk management
- Challenges and strategies for ensuring compliance in diverse regulatory environments



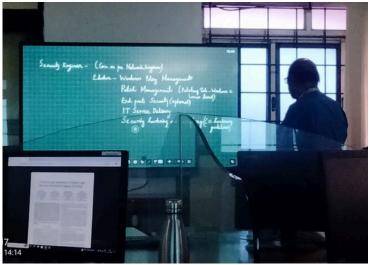
WORKSHOP ON CURRICULUM DESIGN FOR CYBER SECURITY

- The workshop covered international cybersecurity regulations and standards like GDPR, which focuses on data privacy, and NIST, the widely adopted Cybersecurity Framework.
- Key strategies for risk management were covered, including risk assessments, mitigation techniques, and tools like firewalls and encryption to reduce cybersecurity risks.





 The curriculum included case studies, and simulations where students could apply their knowledge in controlled environments, simulating real-world attacks, risk management situations, and cybersecurity breaches. This hands-on experience is vital for bridging the gap between theoretical learning and actual implementation.



"Every experience, every person you meet, every mistake you make has something to teach you . if you're willing to stay open and keep learning"

ONAM





CULTURAL SIGNIFICANCE OF ONAM

- Onam is a major harvest festival celebrated in Kerala, symbolizing prosperity and gratitude.
- It commemorates the homecoming of the legendary King Mahabali

TRADITIONAL CELEBRATIONS AND ACTIVITIES

 people decorate their homes with intricate floral designs called Pookalam and prepare a grand feast known as Onam Sadhya.



"Great education inspires not only competence in one's field, but also compassion, curiosity, and courage to serve something greater than oneself"

HACKATHON



S.A. ENGINEERING COLLEGE, CHENNAI-77

(An Autonomous Institution, Affiliated to Anna University)
Accredited by NAAC 'A' Grade & ISO 9001:2015 Certified Institution







DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING





IEEE DAY 2024





SPECIAL EVENTS

- 1. Hackathon
- 4. Connections
- 2. Mind Masters
- 5. Debugging
- 3. UI Design

REGISTER HERE





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CELEBRATING INNOVATION LEARNING OUTCOMES AND THROUGH IEEE HACKATHON TECHNICAL EXPOSURE

- The IEEE Day Hackathon provided a platform for students to solve realworld problems using technology and teamwork.
- Participants worked on themes like smart cities, sustainability, IoT, and Aldriven solutions.
- Students enhanced their skills in fullstack development, API integration,
 - and version control tools like Git and GitHub.
- Gained exposure to the hackathon culture, including pitching, demo sessions, and time-bound collaboration.



ENCOURAGING INNOVATION AND TECHNICAL EXCELLENCE

- The event provided hands-on experience in programming, debugging, and rapid prototyping.
- Students gained exposure to cuttingedge technologies such as AI, IoT, cloud computing, and mobile development.



SKILL DEVELOPMENT AND CAREER READINESS

- Enhanced participants' skills in project management, teamwork, and time-bound execution.
- The event opened up networking opportunities and increased awareness about career paths in tech innovation.



"In times of rapid change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists"

WORKSHOP FOR FACULTY



UNDERSTANDING THE PRINCIPLES OF OUTCOME-BASED EDUCATION

 Introduced the core framework of OBE, focusing on student-centric learning outcomes and performancebased assessments.



PRACTICAL APPROACHES AND IMPLEMENTATION STRATEGIES

 Demonstrated methods to design curriculum and assessments that measure specific learning outcomes effectively.



"Real education should challenge your comfort zone, stretch your thinking, and push you to be a better version of yourself every day"



IMPLEMENTATION STRATEGIES AND CURRICULUM DESIGN

 Institutions are encouraged to design curriculum that maps outcomes to specific skills and competencies.



ALIGNMENT OF NEP WITH OUTCOME-BASED EDUCATION

- The National Education Policy (NEP) 2020 emphasizes learnercentric and skill-based education, in line with OBE principles.
 - NEP promotes flexible curricula, multidisciplinary learning, and measurable learning outcomes, core to OBE.



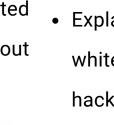
 Students benefit from personalized learning paths, clearer expectations, and focused skill development.

TECH TALK

TECH TALK ON IEEE 802.11



- **Explored** emerging trends nocode/low-code platforms that accelerate development of intelligent web and mobile applications.
- Demonstrated ΑI MΙ how and capabilities integrated can be seamlessly without into apps extensive coding knowledge.











DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ORGANIZES



TECHNICAL TALK

IOT DEVICE SECURITY CHALLENGES AND SOLUTION & REFERENCE MANAGEMENT TOOLS - MENDELEY Time: 2:00PM

Participants: CSE FACULTIES **HOSTED BY**



Dr.Sivakumar.S Topic: IOT DEVICE SECURITY CHALLENGES AND SOLUTION



Dr.Anuradha.M ODIC: REFERENCE MANAGEMENT OOLS - MENDELEY



















- Introduced students to the fundamentals of ethical hacking and how cybersecurity plays a critical role in protecting digital systems.
- Explained the differences between white hat, black hat, and grey hat encouraging responsible hackers. and legal practices.



"The greatest value of education lies not in the facts remembered, but in the confidence and clarity it gives you to solve problems that don't yet exist"

ACHIEVEMENTS



VELAMMAL ENGINEERING COLLEGE BADMINTON (WINNERS)

- RESHMA R
- NIVEDITHA M



GRT ENGINEERING COLLEGE -ATHLETIC OVERALL CHAMPIONSHIP

PREETHA DEVI P

GRT ENGINEERING COLLEGE - ATHLETIC - THIRD

- NAREN V
- RAGHURAM
- ABHISHEK M



VELAMMAL INSTITUTE OF TECHNOLOGY- HOCKEY (WINNER)

- KARTHIKEYAN S V
- RAM SARAVANAN A
- BALAJI D
- HARI PRASAD V
- SRI RAMANENI BHARGAV V
- R.PRADEEP
- P SHAM KUMAR
- KISHORE S
- S GOWTHAM



VELAMMAL INSTITUTE OF TECHNOLOGY- FOOTBALL (RUNNER)

- LKPREM
- J FREDDY PAUL
- GANESH BHARATHI



S.A ENGINEERING COLLEGE-TENNIS (WINNERS)

- KARNESH E J
- ADHITHYA NITHIN R



RMK ENGINEERING COLLEGE-BASKET BALL (THIRD)

- PREETHA DEVI P
- MADHUMITHA R



PRATHYUSHA ENGINEERING COLLEGE- BALL BADMINTON(MEN) WINNERS

- NARAYANAN
- VIKRAM
- SATHISH KANNA
- L K PRABHA
- GIRIJA



PRATHYUSHA ENGINEERING COLLEGE-BALL BADMINTON(WOMEN) WINNERS

- L K PRABHA
- GIRIJA