

Dr. Mahalingam College of Engineering and Technology, Pollachi

SRC – Technofete'2025 – Grand intra-collegiate Technical Fest

Events organised by IGNITE Association (Exclusively for First Year Students)

March 13th & 14th, 2025 @ DrMCET

1. Slide fest (Paper Presentation)

Date & Time: 13/03/2025 & FN (Parallel Participation is Possible)

2. Imago Technica (Poster Presentation)

Date & Time: 13/03/2025 & FN (Parallel Participation is Possible)

3. Hackathon (Bring your novel ideas as Presentation / Project / App)

Date & Time: 13/03/2025 & AN

4. CogniChallenge (Technical Quiz)

Date & Time: 14/03/2025 & FN

5. Tech Debate (Core, Circuit Streams) & Algorithm Design (CSE & IT Streams)

Date & Time: 14/03/2025 & FN

Note:

- For the events slide Fest, Imago Technica the **themes are open**. You may also consider the following themes to ease your topics.
 - For Hackathon, follow the given statement and design your ideas as presentations / Projects / App
 - For the Cognichallenge event, you must thorough in Recent technologies and Engineering concepts in all aspects. (There will be preliminary round for all the students.)
 - For the Tech Debate event, we will provide topics at the spot and you have to discuss about the same. It will be related to your programme as mentioned.
-

1. Themes for Slide fest:

❖ Core Stream (Mechanical, Civil, Automobile)

- 1. Sustainable Infrastructure Development:** Innovations in eco-friendly construction materials and methods.
- 2. Smart Cities:** Integration of technology in urban planning and infrastructure.

3. **Renewable Energy Solutions:** Advancements in wind, solar, and bioenergy for civil, mechanical, and automotive applications.
4. **Autonomous Vehicles:** The future of self-driving cars and related technologies.
5. **Disaster-Resilient Structures:** Engineering solutions for earthquake, flood, and hurricane resistance.
6. **3D Printing in Construction:** Applications and future prospects.
7. **Green Building Technologies:** Enhancing energy efficiency and reducing carbon footprint.
8. **Intelligent Transportation Systems:** Innovations in traffic management and vehicle communication.
9. **Recycling and Waste Management:** Engineering solutions for sustainable waste reduction.
10. **Advanced Materials for Engineering:** Development and application of new materials for construction and manufacturing.

❖ **Circuit Stream (EEE, VLSI ECE & ACT)**

1. **Internet of Things (IoT):** Applications and innovations in smart devices and connected systems.
2. **Renewable Energy Systems:** Innovations in solar panels, wind turbines, and energy storage solutions.
3. **Robotics and Automation:** Trends and advancements in robotics for industrial and consumer applications.
4. **5G Technology:** Impact and future applications of next-generation wireless communication.
5. **Wearable Technology:** Engineering advances in health monitoring and smart textiles.
6. **Embedded Systems:** Design and development of microcontroller-based systems.
7. **Smart Grids:** Innovations in intelligent power distribution and management.
8. **Biomedical Engineering:** Advances in medical devices and diagnostic technologies.
9. **Optoelectronics:** Innovations in light-based technologies for communication and sensing.
10. **Power Electronics:** Advances in converting and controlling electric power.

❖ **CSE Stream (CSE, AIML, CYS)**

1. **Artificial Intelligence in Healthcare:** AI applications in diagnostics, treatment, and patient care.
2. **Cybersecurity:** Techniques and technologies for protecting data and systems.

3. **Big Data and Analytics:** Innovations in processing and analyzing large datasets.
4. **Blockchain Technology:** Applications beyond cryptocurrencies, such as in supply chain and finance.
5. **Natural Language Processing:** Advances in understanding and generating human language.
6. **Quantum Computing:** Future prospects and applications in solving complex problems.
7. **Machine Learning Algorithms:** Innovations and applications in various fields.
8. **Virtual Reality (VR) and Augmented Reality (AR):** Applications and advancements in immersive technologies.
9. **Cloud Computing:** Trends and future directions in cloud services and architecture.
10. **Human-Computer Interaction:** Designing intuitive and user-friendly interfaces.

❖ **IT Stream (IT, AI&DS)**

1. **Cloud Computing:** Trends and future directions in cloud services and architecture.
2. **Augmented Reality (AR) and Virtual Reality (VR):** Applications in gaming, education, and industry.
3. **Data Science in Business:** Leveraging data analytics for strategic decision-making.
4. **Smart Healthcare Systems:** IT solutions for improving patient care and hospital management.
5. **Ethical AI and Bias:** Addressing fairness, accountability, and transparency in AI systems.
6. **Internet of Things (IoT):** Innovations and applications in connected devices and systems.
7. **Data Privacy and Security:** Techniques and technologies for protecting personal data.
8. **Digital Transformation:** IT solutions for enhancing business processes and operations.
9. **Artificial Intelligence in Finance:** Applications in fraud detection, trading, and customer service.
10. **E-Governance:** IT solutions for improving government services and citizen engagement.

2. Themes for Poster Presentation

❖ **Core Stream (Mechanical, Civil, Automobile)**

1. **Innovations in Sustainable Engineering:** Showcase new materials and technologies for eco-friendly construction.
2. **Smart Transportation Systems:** Present ideas for improving urban mobility through intelligent systems.
3. **Renewable Energy Solutions:** Explore innovative ways to harness and utilize renewable energy.
4. **Advanced Manufacturing Techniques:** Highlight the latest advancements in manufacturing processes.
5. **Disaster-Resilient Infrastructure:** Present designs for structures that can withstand natural disasters.
6. **Green Building Technologies:** Showcase technologies that make buildings more energy-efficient and sustainable.
7. **Automated Construction:** Explore the use of robotics and automation in construction.
8. **Future of Automotive Design:** Present concepts for the next generation of vehicles.
9. **Waste Management Solutions:** Explore innovative methods for managing and recycling waste.
10. **Urban Planning for Smart Cities:** Present ideas for designing cities of the future.

❖ **Circuit Stream (EEE, VLSI, ECE& ACT)**

1. **IoT in Everyday Life:** Showcase the impact of IoT on daily activities.
2. **Wearable Technology:** Explore the latest trends and innovations in wearable devices.
3. **Smart Grid Technology:** Present advancements in smart grid systems for efficient energy distribution.
4. **Wireless Communication Systems:** Showcase the future of wireless communication technology.
5. **Robotics and Automation:** Explore the latest innovations in robotics and their applications.
6. **Energy Harvesting Technologies:** Present new methods for harvesting energy from the environment.
7. **AI in Electronics:** Showcase the integration of AI in electronic devices.
8. **Smart Home Solutions:** Explore technologies that make homes smarter and more efficient.
9. **5G and Beyond:** Present the future of wireless networks and their impact on society.

10. Biomedical Electronics: Showcase advancements in electronics for healthcare applications.

❖ **CSE Stream(CSE, AIML, CYS)**

1. **AI in Healthcare:** Explore the use of AI for improving healthcare delivery.
2. **Blockchain Technology:** Present the applications and benefits of blockchain.
3. **Cybersecurity Threats and Solutions:** Showcase the latest threats and solutions in cybersecurity.
4. **Machine Learning Applications:** Explore various applications of machine learning in different industries.
5. **Big Data Analytics:** Present how big data is transforming industries.
6. **Smart City Solutions:** Explore how technology is being used to create smart cities.
7. **Virtual Reality and Augmented Reality:** Showcase the latest advancements in VR and AR.
8. **Cloud Computing:** Present the benefits and applications of cloud computing.
9. **Human-Computer Interaction:** Explore the future of how humans interact with computers.
10. **Ethical AI:** Present the importance of ethics in the development and use of AI.

❖ **IT Stream (IT, AI&DS)**

1. **E-Commerce Trends:** Showcase the latest trends and technologies in e-commerce.
2. **Smart Healthcare Systems:** Present solutions for improving healthcare through IT.
3. **Blockchain in Supply Chain:** Explore the use of blockchain technology in supply chain management.
4. **AI in Customer Service:** Showcase how AI is transforming customer service.
5. **Smart City Infrastructure:** Present IT solutions for smart city development.
6. **Cloud Security:** Explore the importance of security in cloud computing.
7. **IoT and Smart Homes:** Present how IoT is making homes smarter.
8. **Data Privacy and Protection:** Showcase the importance of data privacy and methods to protect it.
9. **AI in Financial Services:** Explore the applications of AI in the finance industry.
10. **Sustainable IT Solutions:** Present IT solutions that contribute to sustainability.

3. Themes for Hackathon

❖ **Core Stream (Mechanical, Civil, Automobile)**

1. **Smart Traffic Management System:** Develop a system to optimize traffic flow using sensors and AI.
2. **Eco-Friendly Building Materials:** Create innovative, sustainable building materials.
3. **Automated Construction Robots:** Design robots to assist in construction tasks.
4. **Smart Parking Solutions:** Develop a system to find and reserve parking spots.
5. **Renewable Energy Solutions:** Create devices to harness renewable energy sources.
6. **Smart Vehicle Diagnostics:** Develop a system for real-time vehicle health monitoring.
7. **Disaster-Resilient Structures:** Design buildings that can withstand natural disasters.
8. **Automated Waste Management:** Create a system for efficient waste collection and recycling.
9. **Smart HVAC Systems:** Develop energy-efficient heating, ventilation, and air conditioning systems.
10. **Autonomous Delivery Vehicles:** Design vehicles for automated delivery services.

❖ **Circuit Stream (EEE, VLSI, ECE & ACT)**

1. **Smart Grid Solutions:** Develop systems for efficient energy distribution.
2. **IoT-Based Home Automation:** Create smart home devices controlled via the internet.
3. **Wearable Health Monitors:** Design devices to monitor health metrics in real-time.
4. **Smart Agriculture Solutions:** Develop systems to optimize farming using sensors and AI.
5. **Energy Harvesting Devices:** Create devices that generate energy from ambient sources.
6. **Smart Lighting Systems:** Develop energy-efficient lighting solutions.
7. **Automated Surveillance Systems:** Design systems for real-time security monitoring.
8. **Smart Water Management:** Create systems to monitor and manage water usage.
9. **Wireless Power Transfer:** Develop systems for transmitting power wirelessly.
10. **Smart Grid Cybersecurity:** Design solutions to protect smart grids from cyber threats.

❖ **CSE Stream (CSE, AIML, CYS)**

1. **AI-Powered Chatbots:** Develop chatbots for customer service or education.
2. **Predictive Analytics for Healthcare:** Create systems to predict health issues using data.
3. **Smart City Solutions:** Develop applications to improve urban living.
4. **Blockchain-Based Voting Systems:** Design secure and transparent voting platforms.
5. **AI-Powered Personal Assistants:** Create virtual assistants for various tasks.
6. **Cybersecurity Solutions:** Develop systems to protect against cyber threats.
7. **Machine Learning for Finance:** Create models to predict stock market trends.
8. **AI-Powered Content Moderation:** Develop systems to filter inappropriate content.
9. **Smart Education Platforms:** Create platforms for personalized learning experiences.
10. **AI for Environmental Monitoring:** Develop systems to monitor and protect the environment.

❖ **IT Stream (IT, AI&DS)**

1. **Cloud-Based Data Management:** Develop systems for efficient data storage and retrieval.
 2. **Smart E-Commerce Solutions:** Create platforms for personalized shopping experiences.
 3. **AI-Powered Fraud Detection:** Develop systems to detect and prevent fraud.
 4. **Smart Healthcare Systems:** Create applications to improve healthcare delivery.
 5. **IoT-Based Smart Cities:** Develop systems to enhance urban living using IoT.
 6. **Blockchain for Supply Chain Management:** Design systems to track and manage supply chains.
 7. **AI-Powered Customer Insights:** Create systems to analyze customer behavior.
 8. **Smart Transportation Solutions:** Develop applications to optimize transportation.
 9. **Cybersecurity for IoT Devices:** Design systems to protect IoT devices from cyber threats.
 10. **AI-Powered Predictive Maintenance:** Create systems to predict and prevent equipment failures.
-