JIS College of Engineering

presents

"Enginuity"

Hardware Engineering Model Competition

as part of the glorious journey of 25 years

Date: August 8–9, 2025

Venue: JIS College of Engineering, Kalyani

About the College

JIS College of Engineering is the flagship Institute under JIS Group Educational Initiative spearheading professional education for over two decades (Established in 2000) with wide spectrum of professional programs accompanied by state of the art academic resources. JIS College of Engineering is located in the academic and industrial hinterland of Kalyani. Institute earned the highest laurels in terms of accreditation by NAAC – A' Grade, NBA, and AICTE. Ranked by NIRF. The Institute offers courses that are approved by AICTE and affiliated to MAKAUT (formerly WBUT). The Institution has been awarded autonomous status by UGC in the academic year 2011, which makes it the first of its kind in West Bengal. The digital learning initiatives of JIS College of Engineering has been endorsed by AICTE & The World Bank Group as India's first fully Flipped Institute. The research and innovations of the Institution has been indexed by ARRIA (26 to 50 rank) & Ministry of Education – Innovation Cell (5-star rating).

Objective:

The primary objective of ENGINUITY 2025 is to foster innovation and technical excellence among engineering students by providing a competitive and collaborative platform for showcasing hardware-based engineering models and prototypes. The event aims to encourage problem-solving, creativity, and interdisciplinary thinking by addressing real-world technological challenges through hands-on solutions. Additionally, ENGINUITY seeks to promote knowledge exchange, peer learning, and industry-academia interaction through keynote talks, exhibitions, and interactive sessions.
This competition aims to:

- Promote innovation and technical creativity among engineering students.
- Encourage hands-on learning through real-world problem-solving.
- Identify and nurture talent in emerging domains like IoT, Embedded Systems, Automation, and Renewable Energy.

Expected Outcome:

- Showcase of Innovation: Participants will present functional hardware prototypes that demonstrate creative and practical engineering solutions to real-life problems.
- Skill Development: Students will enhance their technical, analytical, and presentation skills by participating in a competitive, project-based environment.
- Collaboration and Networking: The event will facilitate collaboration among participants from different institutions and foster connections with experts, academicians, and industry professionals.

Expected Outcome (Contd..):

- Recognition of Talent: Outstanding projects will be recognized and awarded, motivating students to pursue further research and innovation.
- Knowledge Enrichment: Keynote sessions and exhibitions will provide insights into emerging technologies and industry trends, enriching the learning experience for all attendees.
- Promotion of Research Culture: The competition will inspire a culture of applied research and development within academic institutions.

Rules and Regulations:

1. All team members must be from the same college.
2. Same team leader cannot lead more than one team.
3. All participants must register online before the deadline. Late entries will not be accepted.
4. Participants can use any materials except for pre-made kits or fully assembled models. All components must be sourced and assembled independently.
5. Each team must prepare a brief presentation (maximum 5 minutes) to explain their model's functionality and design process.
6. Every team member must carry their college ID, a valid government ID, and a copy of the registration receipt.
7. Participants requiring hostel accommodation must request it during registration (only for long-distance participants).
8. Judges' decisions will be final.
9. 100% software-based projects will not be accepted. Models must involve a combination of hardware and software integration. Software projects without hardware are disqualified.
10. The model should be safe to operate and must not involve any hazardous materials, open flames, or high-voltage elements without proper insulation.
11. Teams are responsible for bringing all required tools and equipment. Organizers will not provide any hardware or support tools.
12. Plagiarism or copying existing market products without any innovation will result in disqualification.
13. Models should be stable, demonstrable, and built to withstand basic handling for judging and presentation.

Rewards:

- **Cash Prize: Rs. 90000/- (First prize ₹20000/-, Second prize ₹15000/-, Third prize ₹10000/- in each category).**

- **Intellectual Property Rights (IPR):** Truly innovative projects, as identified and selected by the panel of experts and judges, will be offered the opportunity to file for Intellectual Property Rights (IPR) in collaboration with JIS College of Engineering, with all associated costs fully sponsored by the organizing institution.

Registration Fees:

Registration Fee: ₹500 per team (up to 4 members) and ₹100 for each additional member (if any). Participants requiring hostel accommodation must request it during registration (only for long-distance participants).

Registration fee Payment QR:

Upload the payment details in the *Registration form link* below,

https://forms.gle/9ZaNeT7MAPS6L3DD8

Important Dates:

Registration Opens: 10.05.2025
Last date of registration: 20.07.2025

Categories for Participation:

Participants are invited to present innovative hardware prototypes in the following two categories:

Embedtronics

Projects related to Robotics, Automation, Embedded Systems, and IoT, including but not limited to:

- IoT & AI powered Smart Home or Smart City Solutions
- IoT-Based Environmental Monitoring
- Agricultural Automation Tools
- Home Security Systems
- Sensor-Based Automation Systems
- Humanoid Robots
- Sustainable Irrigation or Water Purification Systems
- Industrial Automation Prototypes
- Miscellaneous Innovations in Embedded Technologies

EnerTronix

Projects emphasizing Renewable Energy, Sustainability, and Mechatronic Systems, including:

- Solar-Powered Gadgets or Appliances
- Energy Harvesting Devices
- Portable Wind or Hydro Generators
- IoT & AI powered Smart Measurement or Monitoring Tools
- Automated Test Rigs or Simulators
- Motor Control Systems and Actuators
- Autonomous Drones or Vehicles
- Wearable Health Monitors
- Miscellaneous Innovations in Green Tech and Mechatronics

Organizing Committee:
Chief Patron
Mr. Taranjit Singh, MD, JIS Group
Patrons
Mr. Simarpreet Singh, Director, JIS Group
Mr. U. S. Mukherjee, Dy. Director, JIS Group
Mentor- Prof (Dr)Partha Sarkar Principal, JIS College of Engineering,
Chief Mentor - AICTE IDEA LAB, JISCE
Technical Advisor- Dr Biswarup Neogi, Dean R&D
Convenor- Dr. Moumita Pal, HOD ECE Department
Joint Secretary- Dr Indranath Sarkar & Anirban Ghosal
Local Steering Committee:
 Dr. Debasish Sanki, Deputy Registrar
 Dr. Soumyabrata Saha, HoD, IT
 Dr. Sandip Ghosh, Director-IQAC
Registration – Ranjana Ray, Munmun Pramanik, Sampa Mahato
Printing and Publicity – Sourish Halder
Finance – Dr Anirban Patra
Hospitality & Refreshment – Aniruddha Ghosh, Surojit Bhowmik, Rajib Sengupta, Sanjit Das
Logistic - Ranjana Ray, Dr Madhura Chakraborty
Venue Preparation (Stage) - Ranjana Ray, Dr Madhura Chakraborty, Sampa Mahato
Venue Preparation (Project Exhibition) – Kunal Nag, Sourish Halder, Surojit Bhowmik
Transport – Mainuck Das, Rajib Sengupta
Program Coordination – Dr Moumita Pal, Dr Indranath Sarkar, Anirban Ghosal, Kunal Nag
Accommodation - Dr Madhura Chakraborty, Nirmal Biswas
Medical Arrangement - Rajib Sengupta
Evaluation - Ranjana Ray, Dr Madhura Chakraborty
Sponsorship - Anirban Ghosal , Dr Madhura Chakraborty,
Student Volunteers -

Name of the Contact Person:
Mr. Anirban Ghosal (Mob: 7003959912)
email: anirban.ghosal@jiscollege.ac.in