

TESLA

**Technical Electrical Society of Learning and
Application**

ABOUT TESLA

TESLA-NITP, the Technical Electrical Society of Learning and Application, is a dynamic hub of innovation and learning. It empowers students to explore cutting-edge technology, develop essential skills, and tackle real-world challenges collaborating with each other and formulating strategies for integrating technology to maximize results. It also motivates students to beware of new innovation technologies and keep excelling through academic and industrial activities. Through our club programs, TESLA shapes future leaders and innovators, driving impact in electrical and technical sciences.



Message From Our Professor Incharge

Dr. Amitesh Kumar

We wholeheartedly welcome you all to TESLA A (Technical Electrical Society for Learning and Application), a club of NIT Patna focused on activities and events carried out by electrical engineers. The initiative for the formation of this club had been taken by a bunch of electrical engineering undergrads of 2019 with the vision of providing innovative programs and services for Electrical Engineering students of NIT Patna to lead, influence, and contribute to their communities locally, nationally, and globally.

MEET OUR TEAM





TESLA NITP

Presents

HARD-CON CORE

"Unleash Innovation: Build Tomorrow's Hardware Today!"



Vision and Mission

Our first-ever hardware hackathon aims to ignite a passion for hardware development and foster collaboration among students from different engineering branches. This event highlights the crucial role of hardware in technological advancements and offers hands-on experience beyond textbooks.

By attracting students from various disciplines, we seek to break down silos and emphasize interdisciplinary engineering. The hackathon will focus on microcontrollers, providing practical experience in programming and interfacing with sensors and actuators. Participants will design, build, and optimize hardware projects, enhancing their problem-solving skills and creativity.

The hackathon will also help to establish a strong hardware enthusiast community within our college. Participants can network with peers, industry professionals, and academic mentors, building lasting relationships. This community will support continuous learning and innovation, ensuring the culture of hardware development thrives long after the event.

In short, this hackathon is the start of a movement towards embracing the full spectrum of engineering and nurturing a culture of hardware innovation.

Events Stages

The event will takes palce in 3 stages :

1. Idea Submission

To collect innovative project ideas that address real-world problems, which will be developed during the hackathon event which also helps students to learn real life projects leading to their skills development and learning.

2.Event Workshop

The objective of this workshop is to bring together innovators, makers, developers, and designers to collaborate, create, and innovate hardware and software solutions to real-world problems. The event aims to foster creativity, entrepreneurship, and innovation in a dynamic and interactive environment.

3. Final Hackathon

The objective of this final hackathon is to showcase the innovative projects developed during the hackathon which provides a platform for teams to pitch their solutions, and announce the winners.

Timeline



**REGISTRATION
ROUND:
20-25 JAN' 25**

**PRESENTATION
ROUND:
7-8 FEB' 25**



**WORKSHOP:
11-12 FEB' 25**

**FINAL PROJECT:
20-21 FEB' 25**



**RESULTS:
31 APR '25**

Event Description

IDEATION

The Ideation stage includes the following :

- Participants will present their ideas to the panel of judges and the audience.
- Presentations can be made through slides, demonstrations, or verbal explanations. can be made through slides, demonstrations, or verbal explanations.
- The best ideas will be selected based on the scoring criteria.

WORKSHOP

The Workshop round is described below:

- The workshop aims to teach selected students how to use Arduino boards, sensors, and other related hardware.
- Focus will be on building practical skills and understanding key concepts in electronics and programming.
- The workshop will run for a set period (e.g., several hours or days) with hands-on sessions and instructor-led tutorials.
- Understanding wiring, circuits, and connections for successful integration of hardware.

FINAL PROJECT

Details of the Final Round: Project Making

- Participants will create a fully functional project based on their own ideas, utilizing the skills and knowledge gained from the workshop
- The goal is to bring their innovative concepts to life by designing and building a working project using Arduino, sensors, and other related components.
- They are expected to document the process, including the design, coding, and assembly steps.
- After careful evaluation, the winners will be announced based on the highest scores.

Glimpse of the past events



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