Organized under the KARUYANTRA CARNIVAL
By: Karuyantra Robotics Club (KRC), GGSIPU-EDC

🧩 1. Overview

NIMESHA is a 24-hour offline hardware hackathon designed to inspire real-world innovation through hands-on prototyping, system integration, and creative problem-solving.
Participants will conceptualize, design, and demonstrate working solutions addressing industrial and societal challenges using **embedded systems, mechatronics, and AI-driven hardware**.

🎯 2. Objective

To provide a platform for students to:

- Showcase their hardware innovation and technical design skills.
- Build and demonstrate real-world solutions under time constraints.
- Collaborate across disciplines — electronics, mechanics, and AI.
- Gain mentorship from experienced professionals and researchers.

🧠 3. Themes (Tracks)

Each team must **select one theme** before the hackathon begins.
While teams are encouraged to work on a problem statement within their chosen theme, it is **not compulsory** — they may pivot to a new problem during Round 2 if necessary.

The hackathon themes are:

- **Defense & Security**
- **Healthcare & Biotech**
- **Industry 4.0 / IIoT**
- **Disaster Management**
- **Cobotics (Collaborative Robotics)**
- **Multi-Terrain Innovation**
- **Smart City & Automation**
- **Open Innovation (Wildcard)**

⚙️ 4. Equipment and Setup Guidelines

- Teams **must bring all required electronic components, tools, and modules** relevant to their project.
- Each team will be provided **one power outlet** for operation.
- **Soldering stations** will be available at the venue for use under supervision.
- **Basic components and sensors** (such as resistors, jumper wires, and a few motors or sensors) will be available **only in case of emergencies or valid justification**, due to limited stock.
- Participants are responsible for the safety and handling of their own equipment.

Recommended items to bring:

- LiPo / Li-ion battery cells
- Perf boards / Breadboards
- Jumper cables & wires
- Relevant sensors & actuator modules
- Servo / DC motors (if needed)
- Motor controllers / ESCs / Transmitters & receivers
- Microcontrollers (Arduino, Teensy, ESP32, STM32, Raspberry Pi, etc.)
- Laptop, chargers, and all required drivers/software

👥 5. Team Formation

- Teams must consist of **2–5 members**.
- **Interdisciplinary teams** are highly encouraged.
- Each team must register on **Devfolio** before the event.
- Team names should be unique and appropriate.

🕓 6. Hackathon Schedule

Round / Activity	Time Slot	Description
Registration & Setup	10:00 AM – 12:00 PM	Teams register, collect badges, and set up workstations.
Round 1: Ideation & Deck Preparation	12:00 PM – 3:00 PM	Teams prepare presentation decks outlining their concept, problem statement, and proposed solution.
Assessment & Elimination Round	3:00 PM – 5:00 PM	Preliminary evaluation based on idea clarity, feasibility, and innovation. Shortlisted teams proceed to prototyping.
Round 2: Prototype Development	5:00 PM – 8:00 PM	Shortlisted teams begin hardware prototyping and system implementation.
Mentorship Round 1	8:00 PM – 9:00 PM	Mentors review progress and provide technical and design feedback.
Dinner	Suitable Time	Dinner will be arranged for all participants.
Midnight Development & Snacks	9:00 PM – 1:00 AM	Teams continue prototype building. Light refreshments and midnight snacks will be provided.
Mentorship Round 2	1:00 AM – 2:00 AM	Mentors conduct second review and progress check.
Prototype Finalization	2:00 AM – 8:00 AM	Teams refine and complete their working models.

Round / Activity	Time Slot	Description
Final Evaluation & Elimination	8:00 AM – 9:00 AM	Judges assess prototypes and shortlist top 10 teams for final round.

📜 7. Rules & Regulations

1. Each team must register officially on **Devfolio** to participate.
2. All projects must include a **hardware component**. Pure software-only solutions will not be accepted.
3. Participants are required to handle all tools and electrical equipment safely.
4. Teams must **develop their project within the hackathon duration** — pre-built modules must be declared.
5. Internet access will be available for research purposes only.
6. The **decision of judges and mentors is final and binding**.
7. Participants must maintain decorum, teamwork, and professionalism throughout the event.
8. Any act of misconduct, plagiarism, or rule violation will result in disqualification.

🏆 8. Judging Criteria

Criterion	Description
Innovation & Creativity	Originality and uniqueness of the idea.
Feasibility & Practicality	Scope for real-world implementation.
System Design & Integration	Logical design and harmony between hardware and software.
Impact & Usefulness	Industrial, social, or environmental relevance.
Functionality & Performance	Working prototype and reliability.

Criterion	Description
Presentation & Demonstration	Clarity and confidence in communication.
Bonus	Aesthetics, build quality, and novelty of approach.

👩‍🏫 9. Mentorship & Support

- Dedicated mentorship rounds are scheduled to assist teams in refining their ideas and prototypes.
- Mentors will evaluate progress and guide teams on design optimization, control systems, and embedded logic.
- Organizers will be available for logistical or technical support throughout the event.

🍽️ 10. Food & Facilities

- **Dinner** will be served at suitable timings.
- **Midnight snacks and refreshments** will be provided.
- Basic **first aid**, **rest zones**, and **charging facilities** will be available.

📜 11. General Terms

- The organizers reserve the right to modify event details or timings as necessary.
- All participants must adhere to venue safety and cleanliness guidelines.
- By registering, participants agree to allow event photography and project documentation for promotional purposes.

✨ 12. Final Note

NIMESHA is not just a competition — it's a celebration of innovation, teamwork, and the spirit of engineering.
We encourage every participant to explore, experiment, and push the boundaries of what's possible with hardware.