

Open day Project Showcasing robotics , CP , Cybersecurity

1. Robotics

=>Live Demonstrations:

- 1.Autonomous robots navigating mazes.
- 2.Robots performing tasks like object sorting or simple assembly.
- 3.Humanoid robots showcasing interaction capabilities.

=>Interactive Stations:

- 1.Build-your-own-robot kits for beginners.
- 2.Virtual simulations for designing and programming robots.

=>Highlight Innovations:

- 1.Explain the role of AI in robotics.
- 2.Demonstrate real-world applications like healthcare, logistics, and entertainment.

2. Competitive Programming (CP)

=>On-the-Spot Coding Challenges:

- 1.Simple challenges for beginners with guided sessions.
- 2.Advanced problem-solving contests for experienced participants.

=>Interactive Tutorials:

- 1.Sessions on efficient algorithms and data structures.
- 2.Demonstrations of how competitive programming skills translate to real-world problem-solving.

=>Leaderboards:

- 1.Display live rankings during the coding challenge.
- 2.Offer small prizes for top performers.

3. Cybersecurity

=>Hackathon or Capture the Flag (CTF):

- 1.Beginner-friendly challenges like password cracking or identifying vulnerabilities.
- 2.Advanced tasks for experts, such as network penetration testing.

=>Workshops:

- 1.Basics of encryption and secure coding.
- 2.Ethical hacking and penetration testing tools.

- **Simulated Scenarios:**

- Mock cyberattacks to showcase response strategies.
- Explain common threats and their mitigation.

Engagement and Learning

- **Q&A Sessions:**

- Industry experts or professors can answer questions on robotics, CP, and cybersecurity.

- **Poster Presentations:**

- Highlight research projects or innovations in these fields.

- **Takeaway Materials:**

- Handouts, beginner's guides, or access to online resources.

Promotional Elements

- **Interactive Media:**

- Videos of robotics projects and cybersecurity scenarios.

- **Souvenirs:**

- Stickers, badges, or mini-robots for participants.

- **Social Media Live Streams:**

- Reach a broader audience and share event highlights.