Dayananda Sagar Academy of Technology and Management

Department of CSE in IOT, Cybersecurity including Blockchain

presents

TECHFUSION

INTER COLLEGE TECHNICAL FEST

- HACKVERSE

OCULUS AEGIS

DOMAIN THEMES

For HackVerse (24-Hour Hackathon)

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

INTERNET OF THINGS

CODE	THEME	DESCRIPTION
IOT01	Smart Cities & Infrastructure	Create solutions with IoT sensors that can make cities more efficient by managing traffic, optimizing streetlights, monitoring air quality, and enabling smart waste management. These connected systems improve resource use, safety, and the overall urban living experience.
IOT02	Healthcare IoT	Design wearables and connected devices that can track vital signs, remind patients about medication, and share real-time health data with doctors or caregivers. This ensures proactive care, timely alerts, and better accessibility in healthcare.
IOT03	Agriculture & Environment	Create IoT devices that can help farmers monitor soil, water, and weather to improve yields while conserving resources. Smart irrigation, climate sensors, and pollution trackers support sustainable farming and environmental protection.
IOT04	Home & Lifestyle Automation	Create IoT systems that can automate daily routines like lighting, appliance control, and energy tracking while enhancing home security. This makes homes smarter, safer, more energy-efficient, and comfortable for residents.
IOT05	IoT for Emergency & Safety	Create using IoT sensors and wearables that can detect fires, gas leaks, floods, or safety threats and instantly alert users or authorities. These systems ensure faster response times and greater protection in emergencies.

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

CYBERSECURITY

CODE	THEME	DESCRIPTION
CYB01	The Human Firewall – Security Awareness & Education	Create the solutions that focuses on training users to recognize cyber threats through games, chatbots, and kid-friendly apps. By making awareness engaging, it turns people into the first defense against phishing, scams, and risky behavior.
CYB02	Building Digital Shields – Simple Defensive Tools	Create simple defensive tools like password checkers, link scanners, and metadata scrubbers can empower non-experts to protect themselves online. The goal is to make security practical and effortless for everyone.
CYB03	My Data, My Rules – Everyday Privacy Tools	Design a everyday privacy tools like policy summarizers, social media privacy wizards, and permission explainers help users understand and control how their data is collected and shared, making digital privacy more transparent and manageable.
CYB04	Mobile Device Security	Create solutions that detect risky apps, warn about unsafe permissions, or monitor suspicious behavior on smartphones – especially helpful for kids, elderly users, or less tech-savvy individuals.
CYB05	Digital Footprint Monitor	Create tools that scans the web (or dark web) for mentions of a user's email, phone, or leaked data, helping them track and protect their personal digital identity.

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

DATASCIENCE

CODE	THEME	DESCRIPTION
DS01	Healthcare Risk Prediction	Create solutions like predicting whether a patient is at risk of diabetes or heart disease using medical datasets. Clean the data, train simple models, and show key health factors through graphs and dashboards.
DS02	Energy Load Forecasting	Create solutions like predicting tomorrow's electricity demand using past consumption data. Apply basic time-series models and visualize the results with line charts comparing actual vs. predicted usage.
DS03	Predictive Maintenance	Create solutions like predicting when a machine will need maintenance using sensor data (temperature, vibration, usage hours). Classify machines as "normal" or "at risk" and visualize failure trends.
DS04	Air Quality Mapping	Create solutions like generating city-level pollution heatmaps from satellite AQI datasets. Use regression or interpolation to downscale data and highlight pollution hotspots visually.
DS05	Traffic Accident Analysis and Prediction	Build solutions like analyzing accident datasets to find patterns (time of day, weather, location) and predicting accident hotspots. Use classification or regression models, and visualize results with heatmaps, bar charts, and trend lines.

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

AI/ML

CODE	THEME	DESCRIPTION
AI01	AI for Mental Health & Wellbeing	Create AI tools can detect stress, mood patterns, and wellbeing indicators using data like sleep, steps, text, or voice. They can also power chatbots, virtual companions, and wellbeing platforms that provide guidance, awareness, and safe, stigma-free support for individuals to improve mental health.
AI02	AI for Disaster Management	Create a AI tool that analyzes real-time data to predict and detect disasters, helping improve emergency response and save lives.
AI03	AI Finance Planner	Create a AI that personalizes learning, automates grading, and assists with studying to enhance both teaching and student outcomes.
AI04	AI for Education	Create a AI that enables personalized, adaptive learning experiences by analyzing student performance, generating quizzes, automating grading, and providing intelligent study assistants. These tools help students learn more efficiently and teachers manage tasks better.
AI05	AI Climate Detector	Create a AI that can monitor and predict climate patterns, pollution levels, and weather events using environmental and satellite data. By providing insights and eco-friendly suggestions, it empowers individuals and communities to respond effectively to climate challenges.

TECHFUSION

INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

WEB DEVELOPMENT & OPEN INNOVATION

This is an open track where participants are free to build any software or hardware solution of their choice. It could be a web or mobile application, platform, dashboard, or even a hardware prototype that addresses real-world challenges. Projects can focus on domains like education, healthcare, sustainability, agriculture, finance, or community impact. The goal is to encourage creativity, innovation, and practical problem-solving without limiting participants to a fixed theme.

CODE : WD0I22

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

General Guidelines For Hackathon

1. Duration

Participants will have 24 hours to ideate, design, and develop their solution. The countdown begins at the official start time and ends at the deadline, with no extensions.

2. Stick to the Theme

All projects must align with the selected theme. The theme description provides a direction — it's meant to inspire, not restrict creativity. Teams are encouraged to innovate within the theme's context. ***(Themes in one or two domains may look similar but understand its context in the description carefully)***

3. Originality Only

You may research and plan in advance, but all coding and development must happen during the hackathon. Prebuilt or previously submitted work is not allowed and will lead to disqualification.

4. Tech Stack Freedom

Participants can use any programming language, framework, or technology stack they prefer. There are no restrictions on the tools you choose — only the end result matters.

5. Working Prototype is Key

Judging will be based on the final working prototype presented at the end of the 24 hours. A visually complete and functional demo holds more weight than incomplete ideas or mockups.

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

6. Go Beyond the Prompt

You're free to integrate additional insights, features, or technologies beyond the theme description. Innovation and relevance are key.

7. Team Structure

- Each team must have 3 to 4 members.
- Only one project/idea may be submitted per team.
- It is compulsory to get every individual College ID's in a team.

8. Project Submission

Final projects must be submitted through Github links via Google Forms shared by organization team during hackathon Late submissions will not be accepted.

9. On-Campus Participation

All participants must stay on campus for the full 24-hour duration. No remote participation is allowed.

10. Bring Your Own Equipment

Each participant must bring their own laptop and any hardware required for their project.

11. Accommodation & Communication

Accommodation will be provided for all the teams. Final instructions and logistics will be sent via official email to the team leads.

HACKATHON JOURNEY WILL BE SEND TO TEAM LEADS VIA EMAILS

TECHFUSION
INTER COLLEGE TECHNICAL FEST

OCULUS AEGIS

For general inquiries and support:

Dhanush Kumar N-+91 6363589086

Turaga Krishna Kartheek - +91 6302753506

Chaithanya T P - +91 7204474815

Phaneendra M - +91 9742295043

Scan and register:

Hack.Build.Innovate.Compete.⚡