



UTTAR PRADESH STATE
INSTITUTE OF FORENSIC
SCIENCES, LUCKNOW



ALL INDIA COUNCIL
FOR TECHNICAL
EDUCATION



CYBERVIDYAPEETH
FOUNDATION,
FARIDABAD

HACKATHON ON OPEN SOURCE INTELLIGENCE (OSINT) FOR CYBER DEFENSE 2025

Venue: UPSIFS, Lucknow

Dates: March 16th-18th, 2025



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1. INTRODUCTION

1.1. Event Overview

The UPSIFS OSINT Hackathon represents India's pioneering initiative in bringing together the brightest minds from academic institutions to explore and advance the field of Open Source Intelligence (OSINT). This groundbreaking event, hosted by UPSIFS, Lucknow, spans 72 intensive hours of innovation, collaboration, and learning. The hackathon aims to bridge the gap between theoretical knowledge and practical application in the OSINT domain, while fostering a community of ethical intelligence practitioners who understand the importance of responsible information gathering and analysis in today's digital landscape.

1.2. Participation Structure

Teams comprising exactly 5 members from recognized academic institutions across India are eligible to participate. The registration fee is set at INR 2000 per team, which covers access to all event resources, workshops, mentorship sessions, and infrastructure support throughout the hackathon duration. Each participating team must submit an original, unpublished research paper of 3500 words focusing on OSINT methodologies, applications, or emerging trends. This paper serves as a preliminary evaluation criterion for team selection and must be free from plagiarism and AI-generated content.

1.3. Vision and Mission

Our vision is to establish India's premier platform for nurturing OSINT talent while creating a sustainable ecosystem that promotes ethical intelligence gathering practices. The mission encompasses developing technical expertise, fostering innovation, and creating real-world impact through practical applications of OSINT techniques, all while maintaining the highest standards of ethical conduct and professional integrity in intelligence gathering and analysis.

2. OBJECTIVES AND OUTCOMES

2.1. Educational Enhancement

The hackathon serves as an intensive learning laboratory where participants immerse themselves in advanced OSINT methodologies, Python programming, and data analysis techniques. Through structured workshops, hands-on exercises, and real-world challenge scenarios, participants develop a comprehensive understanding of intelligence gathering, verification, and analysis using open-source tools and techniques. The program emphasizes both theoretical knowledge and practical application, ensuring participants graduate with actionable skills applicable in professional settings.

2.2. Technical Skill Development

Participants will engage in rigorous technical training focused on Python programming specifically tailored for OSINT applications. This includes mastering essential libraries for web scraping, data analysis, natural language processing, and visualization. The curriculum covers advanced topics such as automated data collection, pattern recognition, social media analysis, and the development of custom OSINT tools, ensuring participants gain practical experience with industry-standard technologies and methodologies.

2.3. Innovation and Research

The hackathon emphasizes original research and innovative problem-solving approaches in the OSINT domain. Teams are encouraged to explore novel methodologies, develop new tools, and propose creative solutions to real-world intelligence gathering challenges. The mandatory research paper submission serves as a platform for teams to contribute original insights to the OSINT community while demonstrating their theoretical understanding and analytical capabilities.

2.4. Professional Networking

Creating a robust network of OSINT practitioners, industry experts, and academic professionals is a key objective of the event. Through structured networking sessions, panel discussions, and collaborative challenges, participants build lasting professional relationships that extend beyond the hackathon duration. This network serves as a foundation for future collaboration, knowledge sharing, and career opportunities in the OSINT domain.

3. EVENT STRUCTURE AND TIMELINE

3.1. Pre-Event Phase

The pre-event phase spans two months prior to the hackathon and includes team registration, research paper submission, and preliminary evaluation. During this period, registered teams receive access to preparatory materials, online workshops, and mentorship support to help them develop their research papers and prepare for the technical challenges ahead. The evaluation committee reviews submitted papers based on originality, technical depth, and potential impact to select qualifying teams for the main event.

3.2. Main Event Schedule

The 72-hour hackathon is structured into distinct segments that maximize learning and productivity. Day one begins with an inaugural ceremony featuring keynote speakers from the OSINT community, followed by challenge briefings and team strategy sessions. The core hacking period is interspersed with expert workshops, mentorship sessions, and progress reviews. The final day culminates in project presentations, evaluation, and an awards ceremony celebrating outstanding achievements across various categories.

3.3. Post-Event Activities

Following the hackathon, a comprehensive post-event program ensures continued engagement and development. This includes publication of selected research papers in partner journals, opportunities for project incubation, and ongoing mentorship for promising teams. A detailed event report documenting key innovations, learnings, and success stories is distributed to all stakeholders, contributing to the broader OSINT knowledge base.

4. TECHNICAL FRAMEWORK

4.1. Infrastructure and Resources

Participating teams receive access to a robust technical infrastructure including high-speed internet connectivity, cloud computing resources, and specialized OSINT tools. A dedicated technical support team is available 24/7 during the event to assist with infrastructure-related issues and provide guidance on tool usage. Teams are also provided with access to premium OSINT platforms and databases typically used in professional settings.

4.2. Technology Stack

The hackathon focuses on Python as the primary programming language, with emphasis on key libraries and frameworks relevant to OSINT applications. Participants work with tools for web scraping (Beautiful Soup, Scrapy), data analysis (Pandas, NumPy), natural language processing (NLTK, SpaCy), and visualization (Matplotlib, Plotly). Additional technologies include database management systems, API integration tools, and specialized OSINT platforms.

5. EVALUATION AND JUDGING

5.1. Research Paper Assessment

The initial research paper evaluation follows a structured rubric assessing originality (30%), technical depth (25%), methodology (25%), and potential impact (20%). Papers undergo a double-blind peer review process by a panel of academic experts and industry professionals. Plagiarism detection tools are employed to ensure content originality, and papers with AI-generated content are automatically disqualified.

5.2. Hackathon Project Evaluation

Project evaluation during the hackathon is based on multiple criteria including technical innovation (30%), practical applicability (25%), code quality (20%), presentation (15%), and adherence to ethical guidelines (10%). A panel of judges comprising OSINT experts, industry leaders, and academic professionals evaluates each project through multiple rounds of assessment, including code reviews and live demonstrations.

6. AWARDS AND RECOGNITION

6.1. Monetary Prizes

- First Place: INR 1,25,000
- Second Place: INR 75,000
- Third Place: INR 50,000
- Special Category Awards: INR 25,000 each for Best Technical Innovation, Most Ethical Solution, and Best Research Paper

6.2. Professional Recognition

All participating teams receive official certificates from UPSIFS and partner organizations. Winning teams' projects are featured in partner publications and conferences, providing visibility within the professional OSINT community. Outstanding participants receive recommendations for industry positions and advanced training opportunities.

7. ETHICAL GUIDELINES AND COMPLIANCE

7.1. Code of Conduct

All participants must adhere to a strict code of conduct emphasizing ethical information gathering, respect for privacy, and responsible use of OSINT tools. The code includes guidelines for data handling, information verification, and appropriate use of public resources. Violations result in immediate disqualification and potential reporting to relevant authorities.

7.2. Legal Compliance

Teams must ensure all activities comply with relevant laws and regulations, including data protection laws, privacy regulations, and intellectual property rights. A legal compliance officer is available throughout the event to provide guidance and ensure adherence to regulatory requirements.

8. SPONSORSHIP AND PARTNERSHIPS

8.1. Corporate Engagement

The event seeks partnerships with leading technology companies, cybersecurity firms, and intelligence organizations. Sponsorship tiers range from Platinum (INR 1,000,000)-2, Gold (INR 600,000)- 4, Silver- (INR 400,000)-6 to Bronze (INR 200,000)-10, offering various benefits including brand visibility, recruitment access, and project implementation opportunities Including 10 Minutes Access to 2 Days Workshop Program Chaired by PM of India.

8.2. Academic Collaboration

Partnerships with premier academic institutions provide access to research facilities, expert mentorship, and potential publication opportunities. Academic partners contribute to curriculum development, evaluation processes, and post-event research initiatives.

9. SUSTAINABILITY AND FUTURE DEVELOPMENT

9.1. Knowledge Repository

All non-sensitive innovations and research papers from the hackathon contribute to a growing knowledge repository, accessible to future participants and researchers. This repository serves as a valuable resource for the OSINT community while maintaining appropriate confidentiality and security measures.

9.2. Community Building

The hackathon establishes a foundation for a sustained OSINT community in India, with regular meetups, workshops, and collaborative projects planned throughout the year. This community serves as a platform for continuous learning, professional development, and industry engagement.

10. CONTACT AND SUPPORT

10.1. Organization Committee

- Event Director: Air Vice Marshal (Dr) Devesh Vatsa VSM
- Technical Director: Shri Balaji Venketeshwar, Cyber Defense Researcher
- Research Coordinator: Shri Nikhil Srivastava,
- Email: cyberveda@upsifs.ac.in, mentor@cybervidyapeeth.in
- Contact: +91-6230913796, Whatsapp: +91 89397 32808

10.2. Support Channels

Technical Support: tech.support@upsifs.ac.in

Registration Queries: registration@upsifs.ac.in

Research Paper Submissions: papers@upsifs.ac.in

Sponsorship Inquiries: sponsors@upsifs.ac.in

UPSIFS OSINT Hackathon: 72-Hour Detailed Agenda

DAY 1: KICKOFF AND INITIATION (Sunday)

Morning Session

08:00 - 09:00 | Registration and Check-in

- Team verification
- Distribution of participant kits and credentials
- Infrastructure setup assistance
- Morning refreshments

09:00 - 10:00 | Opening Ceremony

- Welcome address by UPSIFS Director
- Keynote speech: "The Future of OSINT in Digital Intelligence"
- Introduction of judges and mentors
- Overview of evaluation criteria

10:00 - 11:00 | Technical Session

- Platform introduction and access protocols
- Development environment setup
- Available tools and resources overview
- Q&A session

11:00 - 12:00 | Challenge Announcement

- Detailed problem statement presentation
- Evaluation criteria explanation
- Resource access guidelines
- Security and ethical considerations

Afternoon Session

12:00 - 13:00 | Lunch Break & Networking

- Networking lunch with industry experts
- Mentor meet-and-greet
- Team strategy discussions

13:00 - 14:30 | Workshop | Advanced OSINT Techniques

- Web scraping methodologies
- Social media intelligence gathering
- Data validation techniques
- Hands-on exercises

14:30 - 15:30 | Team Strategy Development

- Team planning sessions
- Mentor consultations
- Resource allocation planning

15:30 - 19:00 | Hacking Begins

- Active development phase
- On-demand mentor support
- Technical assistance available

19:00 - 20:00 | Evening Check-in

- Progress updates
- Technical issues resolution
- Dinner break

20:00 - 00:00 | Night Hacking Session

- Continued development
- 24/7 technical support available
- Refreshments provided

DAY 2: DEVELOPMENT AND PROGRESS (Monday)

Morning Session

00:00 - 08:00 | Overnight Hacking

- Continuous development period
- Support staff available
- Refreshments and snacks provided

08:00 - 09:00 | Morning Review

- Progress check-in
- Breakfast session
- Team adjustments and planning

09:00 - 10:00 | Workshop II: Data Analysis & Visualization

- Data processing techniques
- Visualization best practices
- Reporting methodologies

10:00 - 12:00 | Mid-point Development

- Focused coding session
- Mentor rotations
- Technical troubleshooting

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- Focused coding session
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- Technical troubleshooting

Afternoon Session

12:00 - 13:00 | Lunch Break & Mini-Presentations

- Informal progress sharing
- Peer feedback sessions
- Networking opportunity

13:00 - 14:00 | Workshop III: Ethical Considerations

- Privacy considerations
- Legal compliance
- Best practices in OSINT

14:00 - 19:00 | Advanced Development Phase

- Continued hacking
- Feature implementation
- Testing and validation

19:00 - 20:00 | Evening Status Update

- Team progress reviews
- Dinner break
- Mentor feedback sessions

20:00 - 00:00 | Night Hacking Session

- Intensive development
- Problem-solving sessions
- Technical support available

DAY 3: FINALIZATION AND PRESENTATION (Tuesday)

Morning Session

00:00 - 08:00 | Final Development Sprint

- Last major development push
- Bug fixing
- Feature completion

08:00 - 09:00 | Preparation Break

- Breakfast
- Team coordination
- Presentation preparation

09:00 - 10:00 | Code Freeze Announcement

- Final commits
- Documentation review
- Presentation setup

10:00 - 12:00 | Presentation Preparation

- Slide deck creation
- Demo testing

Afternoon Session

12:00 - 13:00 | Lunch Break & Final Preparations

- Last-minute refinements
- Presentation rehearsals
- Technical setup verification

13:00 - 16:00 | Project Presentations

- 15-minute slots per team
- Live demonstrations
- Q&A sessions

16:00 - 17:00 | Judging Period

- Judges' deliberation
- Refreshment break for teams
- Networking session

17:00 - 18:00 | Closing Ceremony

- Keynote address
- Award announcements
- Prize distribution
- Certificates presentation

18:00 - 19:00 | Networking & Farewell

- Photo sessions
- Experience sharing
- Future collaboration discussions

Additional Notes:

Continuous Support Available

- 24/7 Technical helpdesk
- Medical support station
- Refreshment stations
- Prayer room access
- Rest areas

Facilities Available Throughout

- High-speed internet
- Power stations
- Development tools
- Reference materials
- Printing services

Important Guidelines

- Teams must be present during all major checkpoints
- At least one team member must be available at the team station at all times
- Regular commits and progress updates are mandatory
- All code must be original and developed during the hackathon
- Ethical guidelines must be strictly followed
- Teams must maintain professional conduct throughout the event



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