



Silver Spectrum TechFest 2025

A National Level 48-Hour Hackathon



Organized by,
Department of Computer Science and Engineering and
Department of Artificial Intelligence and Machine Learning

Powered By,



Detailed Report: 48-Hour Hackathon

28th, 29th, 30th
October 2025

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Preface

The 48-Hour Hackathon, organized by the **Department of Computer Science & Engineering (CSE) and Artificial Intelligence & Machine Learning (AIML)** at **New Horizon College of Engineering (NHCE)**, was held from **28th to 30th October 2025**.

This event was conceived as a platform to nurture creativity, innovation, and collaboration among students. Over the course of 48 hours, participants worked tirelessly to design and develop solutions addressing real-world challenges in areas such as **Artificial Intelligence, Machine Learning, and Deep Learning (AI/ML/DL), Generative AI for Business Applications, Cyber Security, Internet of Things (IoT), and Innovation using Web 3.0**.

The hackathon not only tested technical skills but also encouraged teamwork, time management, and entrepreneurial thinking. By bringing together students, faculty, and industry mentors, the event strengthened NHCE's commitment to fostering innovation and preparing students for the evolving technological landscape.

Acknowledgements

The successful organization of this hackathon was made possible through the collective efforts of many individuals and institutions. We extend our heartfelt gratitude to:

- **Hon'ble Chairman Dr. Mohan Mangnani and Hon'ble President Mr. Dharmesh Mangnani of NHCE** for their constant encouragement and support.
- Principal, Registrar, Senior Executive Directors, Executive Directors, Senior Directors, Directors, Controller of Examination and Deans for their guidance and leadership in enabling such large-scale events.
- Heads of Departments (CSE & AIML) for their vision and commitment to student-centric innovation.
- Heads of Departments (CSE-Allied, ECE, EEE, MBA, MCA, and Applied Science) for their coordination and support.
- Faculty and Staff Coordinators, and the Organizing Committee, for their meticulous planning and execution.
- Industry Mentors and Jury Members from TCS, Conneqtion, Visionet, SecuredApp and HackCulture for providing problem statements, mentorship, evaluation and platform for conduction of Hackathon.
- New Horizon Branding Department for their outstanding dedication in designing posters, banners, certificates, and managing media with excellence and creativity.
- Student Volunteers for their dedication in managing logistics, registrations, and technical support.
- Participants for their enthusiasm, creativity, and relentless energy throughout the 48 hours.

This report is a reflection of the collective spirit of innovation, collaboration, and excellence that defines NHCE.

The **Silver Spectrum TechFest**, a **National Level 48-hour Hackathon**, was organized by **New Horizon College of Engineering (NHCE)** to promote innovation, creativity, and technological excellence among students. The event brought together passionate young minds from across the country to develop impactful solutions to real-world problems through collaboration, design thinking, and technical expertise.

Objectives

- **Foster innovation** among students in emerging technologies such as AI, ML, DL, Cybersecurity, IoT, Blockchain and Web 3.0.
- **Encourage interdisciplinary collaboration** between CSE and AIML students.
- **Provide real-world problem statements** from industry partners and government bodies.
- **Promote entrepreneurial thinking** by guiding students to convert prototypes into viable products.

Problem statements

Problem statements were provided by industry leaders from **TCS, Visionet, Conneqtion, and SecuredApp**, across five major domains - **Artificial Intelligence, Machine Learning, and Deep Learning (AI/ML/DL), Generative AI for Business Applications, Cyber Security, Internet of Things (IoT), and Innovation using Web 3.0**. These domains represented the forefront of modern technology and gave students an opportunity to explore cutting-edge challenges under expert mentorship. The event aimed to bridge the gap between academic learning and industry expectations while promoting teamwork, creativity, and technical excellence. The event was technically supported by **HackCulture**.

A total of **29 problem statements** were received from various industry partners to be presented as challenges for the hackathon.

Sl. No.	Company Name	No. of Problem Statements
1	TCS	20
2	Visionet	06
3	Conneqtion	02
4	SecuredApp	01

After a comprehensive review process conducted by the Heads of Departments, faculty experts, and the Organizing Committee, **13 problem statements** were shortlisted based on their relevance, innovation potential, and technical feasibility.

Domain	PS Code	Problem Statement
Gen AI for Business Applications	NH-SJC-PS-001	Autonomous supply-chain optimiser (agentic RAG)
	NH-SJC-PS-002	Agentic compliance assistant for finance
	NH-SJC-PS-003	Cross-functional marketing & finance campaign planner
Cyber Security	NH-SJC-PS-004	Phishing email detector, Threat intelligence summarizer, Log analysis + incident triage, Security policy assistant
	NH-SJC-PS-005	Spot the Insider Threat
	NH-SJC-PS-006	AI-Powered Cyber Threat Detection Dashboard
Artificial Intelligence / Machine Learning / Deep Learning	NH-SJC-PS-007	Clinical triage assistant, Medical literature summarizer, Medication adherence coach, Hospital resource scheduler, Radiology report helper
	NH-SJC-PS-008	AI teaching assistant that uses the Socratic method to teach sorting algorithms
	NH-SJC-PS-009	Banking Fraud Detection using Multimodal Transactions
Internet of Things (IoT)	NH-SJC-PS-010	AI-Powered IoT Coaching System for Sports Training
	NH-SJC-PS-011	Smart Home Intrusion Detection using Multimodal Sensors
	NH-SJC-PS-012	Defect Detection in Manufacturing using Multimodal Sensors
Innovation using Web 3.0	NH-SJC-PS-013	Front-Running Attack Detection & Mitigation System

Participation Overview

We started the registration process on 30-Sep-2025. The response to the hackathon was overwhelming, reflecting the growing interest among students in cutting-edge technologies. At Level-0 (Registration and Screening Round), the event received participation from **172 teams** representing various colleges nationwide. The distribution across domains was as follows:

Sl. No.	Domain	No. of Teams
1	Cyber Security	40
2	Internet of Things (IoT)	20
3	Innovation using Web 3.0	35
4	AI, ML, and DL	51
5	Generative AI for Business Applications	26
Total		172 Teams

College-wise Registration

Sl. No.	Name of College	Number of Submissions
1	NEW HORIZON COLLEGE OF ENGINEERING, BENGALURU	80
2	DAYANANDA SAGAR COLLEGE OF ENGINEERING, BENGALURU	14
3	SJC INSTITUTE OF TECHNOLOGY, CHICKABALLAPURA	10
4	EAST POINT COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU	7
5	CMR INSTITUTE OF TECHNOLOGY, BENGALURU	6
6	JAIN (DEEMED-TO-BE-UNIVERSITY), FACULTY OF ENGINEERING AND TECHNOLOGY (FET), KANAKAPURA	6
7	BAPUJI INSTITUTE OF ENGINEERING AND TECHNOLOGY, DAVANAGERE	5
8	PRESIDENCY UNIVERSITY, BENGALURU	5
9	SAMBHRAM INSTITUTE OF TECHNOLOGY, BENGALURU	5
10	BANGALORE TECHNOLOGICAL INSTITUTE, BENGALURU	4
11	M.KUMARASAMY COLLEGE OF ENGINEERING, THALAVAPALAYAM, TAMIL NADU	3
12	VIDYAVARDHAKA COLLEGE OF ENGINEERING, MYSURU	3
13	ATRIA INSTITUTE OF TECHNOLOGY, BENGALURU	2
14	GEETHANJALI INSTITUTE OF SCIENCE AND TECHNOLOGY, ANDHRA PRADESH	2
15	IMPACT COLLEGE OF ENGINEERING AND APPLIED SCIENCES, BENGALURU	2
16	JAIN INSTITUTE OF TECHNOLOGY, DAVANGERE	2
17	JOY UNIVERSITY, KANYAKUMARI, TAMIL NADU	2
18	REVA UNIVERSITY, BENGALURU	2
19	ACS COLLEGE OF ENGINEERING, BENGALURU	1
20	GARDEN CITY UNIVERSITY, BENGALURU	1
21	IFIM COLLEGE, BENGALURU	1
22	JAIN COLLEGE OF ENGINEERING AND RESEARCH, BELAGAVI	1
23	JSS ACADEMY OF TECHNICAL EDUCATION, BENGALURU	1
24	JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU	1
25	PES UNIVERSITY, BENGALURU	1
26	SAI VIDYA INSTITUTE OF TECHNOLOGY, BENGALURU	1
27	SDM COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD	1
28	SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU	1
29	SRI JAGADGURU MURUGARAJENDRA INSTITUTE OF TECHNOLOGY, CHITRADURGA	1
30	THE OXFORD COLLEGE OF ENGINEERING, BENGALURU	1
Grand Total		172

The registrations reflected the diversity of ideas and the strong enthusiasm of students to tackle real-world challenges through technology-driven innovation. For this overwhelming response, we closed the registrations on 10-Oct-2025 and moved to the Preliminary screening round.

Preliminary Screening (Level-1)

Following registration, all teams submitted their initial ideas and presentations for review. Industry experts conducted a detailed scrutinization process, evaluating submissions based on clarity, creativity, feasibility, and potential real-world impact.

After this review, **111 teams were shortlisted** for the Level-1 Preliminary Round. The shortlisted distribution was:

Domain	Teams Shortlisted
Cyber Security	37
Internet of Things (IoT)	10
Innovation using Web 3.0	20
AI, ML, and DL	24
Generative AI for Business Applications	20
Total	111 Teams

At this stage, the quality of ideas demonstrated both technical depth and creativity. Participants also received valuable feedback from reviewers, which helped them refine their concepts for further rounds.

Final Shortlisting and Grand Hackathon

Based on presentations and demo evaluations, the top six teams per domain were shortlisted for the Grand Finale Hackathon, totalling 30 finalist teams:

Domain	Finalist Teams
Cyber Security	6
Internet of Things (IoT)	6
Innovation using Web 3.0	6
AI, ML, and DL	6
Generative AI for Business Applications	6
Total	30 Teams

These teams participated in the 48-hour on-campus hackathon hosted by New Horizon College of Engineering. Each team was guided by a faculty mentor from their respective institutions, ensuring consistent technical and strategic support throughout the event.

The hackathon tested participants' ability to develop functional prototypes within strict timelines. It encouraged collaboration, problem-solving, and innovation under pressure, simulating real-world development environments.

COLLEGE-WISE PARTICIPATION

Sl. No	Name of College	No. of Teams
1	NEW HORIZON COLLEGE OF ENGINEERING, BENGALURU	16
2	DAYANANDA SAGAR COLLEGE OF ENGINEERING, BENGALURU	3
3	SJC INSTITUTE OF TECHNOLOGY, CHICKABALLAPURA	2
4	SAMBHRAM INSTITUTE OF TECHNOLOGY, BENGALURU	2
5	BANGALORE TECHNOLOGICAL INSTITUTE, BENGALURU	1
6	CMR INSTITUTE OF TECHNOLOGY, BENGALURU	1
7	GARDEN CITY UNIVERSITY, BENGALURU	1
8	JOY UNIVERSITY, KANYAKUMARI	1
9	PRESIDENCY UNIVERSITY, BENGALURU	1
10	REVA UNIVERSITY, BENGALURU	1
11	S.J.M INSTITUTE OF TECHNOLOGY, CHITRADURGA	1
Grand Total		30

Inaugural Ceremony and Beginning of Hackathon

The hackathon was inaugurated on **Tuesday, 28th October 2025**, at the **NHCE Auditorium** in a grand ceremony filled with enthusiasm and anticipation. The event commenced with a warm welcome by **Dr. Jimsha K Mathew** and student anchors who set an engaging tone for the program. This was followed by a melodious invocation song and the traditional lighting of the ceremonial lamp, symbolizing the triumph of knowledge and innovation over darkness and ignorance.

The **Principal of NHCE, Dr. Manjunatha**, addressed the gathering and emphasized the importance of hackathons in enhancing problem-solving and collaborative skills among students. He highlighted how such competitions act as a bridge between academic learning and industry expectations.

The **Chief Guest, Mr. Pradeep Rao, Director & Chief Architect at Kyndryl**, delivered an inspiring inaugural speech. His talk on Quantum Awareness and Q-Day provided valuable insights into the future of quantum computing and its transformative potential. His address motivated participants to think beyond conventional approaches and explore the boundaries of technology. The inauguration ceremony was concluded with a vote of thanks by **Dr. Rajasree RS** to all the officials, chief guest, staff, students, industry partners and participants. The ceremony was closed with **National Anthem**, which gave everyone a proud feeling.

Hackathon Rounds and Evaluation

The hackathon was structured across three major review levels - Level-2, Level-3, and Level-4, each focusing on a distinct phase of innovation and execution:

Level-2: Teams were evaluated on their understanding of the problem statement and the design of their proposed solution.

Level-3: Focused on implementation progress, innovation, and technical development during the hackathon.

Level-4: Assessed the final working prototype, its presentation, scalability, and real-world applicability.

Throughout the event, mentors and evaluators from the partnering companies provided constant guidance and support to the teams. Their involvement ensured that every evaluation was conducted with fairness, professionalism, and transparency. Students benefited immensely from their mentorship, gaining exposure to industrial problem-solving methodologies and professional project management practices.

Jury Details

Sl. No	Jury Name	Company
1	Mr. Naveen Kumar R	TCS
2	Mr. Darshan	Conneqtion
3	Mr. Sai Kiran P	Conneqtion
4	Mr. Himanshu Gautam	SecuredApp
6	Mr. Punay Mehra	Visionet
7	Mr. Remesh C K	TCS

Valedictory and Closing Ceremony

The **Silver Spectrum TechFest Hackathon** concluded on a grand note with the **Valedictory Ceremony held on 30th October 2025** at New Horizon College of Engineering. The atmosphere was filled with excitement and accomplishment as participants, mentors, and organizers gathered to celebrate the successful completion of the 48-hour national-level event. The ceremony marked the culmination of days of innovation, teamwork, and technical excellence demonstrated by students from across the country who worked tirelessly to develop impactful solutions.

The **Chief Guest for the Valedictory Function** was **Mr. Ranjith Thirukonda**, *Delivery Partner, TCS*, who delivered an **inspiring and motivational address** to the participants. In his speech, he appreciated the quality of innovation, creativity, and problem-solving skills displayed during the hackathon. He emphasized the **national importance of such events** in fostering technological self-reliance, collaboration, and youth-driven innovation in India's digital growth journey.

During the ceremony, **Dr. Sanjeev Kaulgud** presented the comprehensive report of the hackathon, detailing the stages of evaluation, participation statistics, industry involvement, and the final outcomes. His report reflected the scale and success of the event, acknowledging the relentless efforts of the organizing committee, mentors, and participants. The ceremony concluded with the **announcement of winners**, the **distribution of prizes and certificates**, and a vote of thanks by **Dr. Roja Ramani** to all the officials, chief guest, staff, students and participants. The closing event symbolized not just the end of the hackathon, but also the beginning of new opportunities for innovation and collaboration inspired by the experience. The valedictory ceremony came to a dignified close with the **National Anthem**, marking a proud and patriotic conclusion to the **Silver Spectrum TechFest 48-Hour Hackathon 2025**.

Outcome and Recognition

After the meticulous evaluation process, one winning team per domain was declared, resulting in a total of five winning teams. Each winning team received a **cash prize of Rs. 25,000, a winner's trophy, and certificates** in recognition of their creativity, teamwork, and impact. These winners truly embodied the spirit of the Silver Spectrum Hackathon - Think, Build, and Inspire.

Beyond the winners, **every team emerged as a success story**, demonstrating resilience, technical skill, and innovative thinking. Industry experts praised the participants' efforts, noting that several projects showed strong potential for incubation and real-world development. **SecuredApp offered 3-month internships to five NHCE students** and expressed intent to provide opportunities to five more students, while **Connection Group also showed interest** in offering internships, with communication in progress.

The Silver Spectrum TechFest Hackathon successfully showcased the talent, determination, and innovative spirit of young engineers across India - reaffirming NHCE's commitment to excellence, technology, and industry collaboration.

The successful planning and execution of the Silver Spectrum TechFest Hackathon were made possible through the dedicated efforts and guidance of the Heads of Departments **Dr. N. V. Uma Reddy (HoD-AIML)** and **Dr. B. Rajalakshmi (HoD-CSE)** - whose strategic direction and academic insight played a crucial role in shaping the event. The **faculty coordinators, Dr. Narayana Swamy Ramaiah, Dr. Sanjeev P. Kaulgud, Dr. Santosh Kumar B, Dr. Rajasree R. S., Dr. Vijayasekaran Gunasekaran, Dr. Jimsha K. Mathew and all faculties, staff and student volunteers** worked tirelessly in coordinating all stages of the hackathon - from industry collaboration and problem statement evaluation to event organization, participant mentoring, and technical review. Their collective commitment, leadership, and teamwork ensured the smooth conduct of the hackathon and contributed significantly to its overall success and impact. Special thanks to our student main coordinators **Mr. Sai Suhas T, Mr. Suraj Srivathsav, Mr. Yashaswi Suprabhat and Mr. Rohit Raj** along with their **complete team of student volunteers** for their commitment and hard work which made this event successful.

Details of Winners

Sl. No	Domain	Team Name	College Name	Team Lead	Team Member-2	Team Member-3	Team Member-4	Team Member-5	Faculty Mentor
1	AI / ML / DL	RANDOM FOREST	NEW HORIZON COLLEGE OF ENGINEERING	1NH23CD079 KUSHITH GOWDA	1NH23CD078 KRISHNA RATHNAM	1NH23CD051 GOWTHAM N	1NH23CD197 VARUN S	1NH23CD074 KEERTHANAS	DR. SUNIL KUMAR V
2	Cyber Security	DIGITAL PIRATES	SAMBHRAM INSTITUTE OF TECHNOLOGY	1ST23CY014 JOSHNA VARDHAN REDDY	1ST23CS075 HRUSHIKESH M	1ST23CY026 MANASVI V	1ST23CY008 DEEPAK KUMAR RIKHI	1ST23CY027 MOHAMMED AAMIL	DR. SANJEETHA R
3	Generative AI	HACKAHOLIC	NEW HORIZON COLLEGE OF ENGINEERING	1NH23CS226 SANJAY KUMAR R	1NH23CS238 SHASHANK KATTE	1NH23CS242 SHRAVAN PRASANNA KUMAR	1NH23CS274 TEJASVI M	1NH23CS278 THARUN SIVAKUMAR	DR. SONALI JAGADISH MAHURE
4	Internet of Things	GROVE STREET ENGINEERS	SJC INSTITUTE OF TECHNOLOGY, CHIKKABALLAPUR	1SJ23CS056 GUNESH REDDY S	1SJ23CS013 ANUROOP PN	1SJ23CS043 CHIRANTH CS	1SJ24CS012 ANUSHA S	1SJ23CS195 G TARUN	PROF. NAGESHAN M
5	Innovation using Web 3.0	WI-FIGHTERS	REVA UNIVERSITY	R23EI040 SHREYANK PRABHU CB	R23EI034 RAMYA BJ	R23EI025 NIVAS B U	R23EI039 SHEETAL R	--	DR T Y SATHEESH A

Summary of Participant Feedback

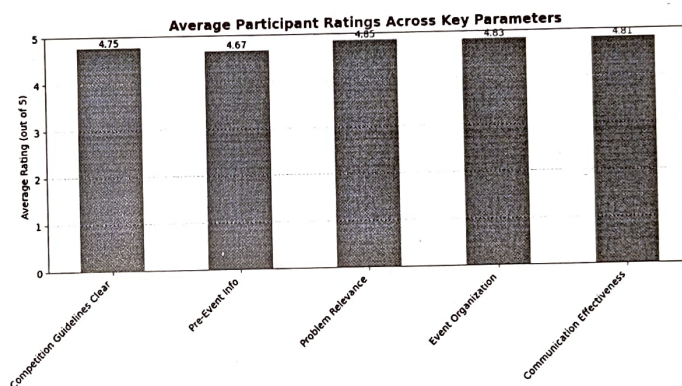
The feedback received from participants of the **Silver Spectrum TechFest Hackathon 2025** was overwhelmingly positive, reflecting the event's strong organization, effective coordination, and enriching learning experience. Across all evaluation criteria — including **clarity of competition guidelines, adequacy of pre-event communication, appropriateness of problem statements, event organization, and communication during the hackathon** — the majority of responses rated the event with **scores of 4 and 5**, indicating a **high level of participant satisfaction** (Rating Scale: 1 being the lowest and 5 being the highest).

Participants appreciated the **clear communication, well-structured schedule, and helpful coordination** by faculty mentors and volunteers. Many highlighted the **hospitality, food, and accommodation arrangements**, as well as the **professionalism of the organizing committee**. The hackathon was described as a **valuable learning opportunity**, especially for first-time participants, who commended the exposure to real-world problem statements and mentoring support from industry professionals. A few constructive suggestions were also received, mainly recommending **improvements in increased duration for evaluations, and recognition for runner-up teams**. Some participants proposed **hard-copy certificates and better review scheduling**.

Overall, the feedback emphasized that the hackathon was **well-organized, engaging, and inspiring**, successfully achieving its goal of fostering innovation, teamwork, and technical excellence among participants.

Average Overall Ratings

- Competition Guidelines: **4.7/5**
- Pre-Event Information: **4.6/5**
- Problem Relevance: **4.8/5**
- Event Organization: **4.8/5**
- Communication Effectiveness: **4.8/5**



Snapshots of the 48-Hour Hackathon



Inaugural Ceremony



Address by chief guest



Participants working on Day-1



Participants working on Day-1



Participants presentation on Day-1



Participants working on Day-2



Participants presentation on Day-2



Final Presentation on Day-2



Trophy and certificates for winners



Winning teams of all 5 domains

Rishu
SPK
Event Coordinators

NOVA
13/11/2025
HoD-AIML

✓
13-Nov-25
HoD-CSE