GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
STATE UNIVERSITY ESTABLISHED BY THE GOVT. OF NCT OF DELHI"
UNIVERSITY SCHOOL OF AUTOMATION & ROBOTICS (USAR)
East Delhi Campus, Surajmal Vihar, Delhi – 110 092

COMPREHENSIVE OFFICIAL REPORT ON INTERNAL HACKATHON
SMART INDIA HACKATHON (SIH) 2026

Institutional Identification: AISHE Code: U-0099 | AICTE App No: 1-3327247713 | UGC Reg: 9-8/94 (CPP-I)

1. Executive Summary & About the Event

The Internal Hackathon for Smart India Hackathon (SIH) 2026 was organized by the University School of Automation & Robotics (USAR), Guru Gobind Singh Indraprastha University at the state-of-the-art East Delhi Campus, Surajmal Vihar, Delhi – 110092 . Smart India Hackathon is a nationwide initiative launched by the Ministry of Education's Innovation Cell (MIC) and the All India Council for Technical Education (AICTE) to provide students with a platform to solve pressing challenges faced by government ministries, departments, public sector undertakings (PSUs), and premier industries.

The primary objective of the USAR Internal Hackathon 2026 was to cultivate an agile culture of technological innovation, interdisciplinary engineering design, and entrepreneurship among students across cutting-edge domains including Artificial Intelligence & Machine Learning (AIML), Artificial Intelligence & Data Science (AIDS), Industrial Internet of Things (IIOT), and Automation & Robotics (AR).

Key Objectives: Key Objectives of the Internal Hackathon:

- **Foster Technical Innovation & Problem Solving:** Engage undergraduate and postgraduate engineering students in tackling genuine national challenges through software algorithms, deep learning models, edge IoT devices, and robotic automations.
- **Multi-Stage Meritocratic Evaluation:** Conduct a highly transparent, competitive, and rigorous multi-round evaluation process with expert internal faculty and external industry adjudicators.
- **Nomination of Top 50 National Contenders:** Identify and select the top 50 high-performing teams along with 5 reserve waitlisted teams for official nomination onto the national AICTE SIH 2026 portal.
- **Promote Gender Diversity & Inclusion:** Ensure 100% compliance with AICTE guidelines regarding mandatory female participation, empowering women leaders in engineering and computing.

2. Event Execution & Phased Evaluation Framework

To handle the massive student participation and ensure thorough technical scrutiny of every submission, the internal hackathon was executed across two distinct competitive rounds:

Phase / Round	Date	Evaluation Format & Scope	Teams Evaluated	Outcome
Round 1: Preliminary Screening	28th August 2026	5-min PPT Presentation + 2-min Technical Q&A across parallel departmental panels evaluating novelty, approach & feasibility.	152 Teams (912 Students)	**61 Top Teams Shortlisted**
Round 2: Grand Finalist Defense	7th September 2026	10-min In-depth Defense + Live Software/Hardware Working Prototype Demo + Comprehensive Jury Cross-Examination.	61 Teams (366 Students)	**50 Nominated Teams + 5 Waitlisted**

3. Participation Statistics & Gender Diversity

The event witnessed historic participation across all four engineering departments of USAR. In strict adherence to AICTE guidelines, gender inclusivity was proactively enforced across all competing teams.

Participation Metric / Parameter	Official Institutional Record
Total Registered & Evaluated Teams	**152 Teams**
Total Participating Engineering Students	**912 Students (6 students per team)**
Female Student Participants	298 Students (32.7% representation)
Male Student Participants	614 Students (67.3% representation)
Mandatory Female Team Compliance Rate	**100.0% (All 152 teams complied with >= 1 female member)**
Total Problem Statements Attempted	41 National Problem Statements
Mode & Venue of Event	Offline / Physical (USAR East Delhi Campus Labs & Audi)

4. Problem Statements Selected & Attempted Matrix

A total of 41 unique national problem statements released by central ministries, state agencies, and PSUs were addressed by the student teams. The detailed breakdown of participated and selected nominated teams per problem statement is summarized below:

S.No.	PS ID	Official Problem Statement Title	Participated	Nominated
1	**SIH26090**	AI-Driven Market Linkage and Smart Cataloging Mobile Application for Marginalized Artisans	1	**1**
2	**SIH26047**	Patient Case-Taking Software	2	**2**
3	**SIH26192**	Flash Flood Prediction System for Hilly Regions using Multi-Source Data Theme	2	**1**
4	**SIH26059**	AI-Enabled Antarctic Sea-Ice, Iceberg Trajectory, and Navigation Decision Support System	1	**1**
5	**SIH26218**	Student Innovation-There is a need to design drones and robots that can solve some of the pressing challenges of India such as handling medical emergencies, search and rescue operations, etc.	1	**1**
6	**SIH26167**	SatQuery AI - An Interactive Vision-Language Assistant for Multimodal Remote Sensing Image Analysis through Text Queries	2	**2**
7	**SIH26027**	AI-Powered Automatic Block Planning to Maximize Asset Availability for Train Operations on Indian Railways	2	**2**
8	**SIH26075**	Participants are invited to design and develop CAPACITY CONNECT A Digital Capacity Building and Learning Management	1	**1**

		Portal to support organizational training, competency development, and knowledge sharing through a centralized web-based platform.		
9	**SIH26124**	AI-Powered Mobile Urban Intelligence Platform Using Public Transport Fleet	2	**1**
10	**SIH26025**	Development of an AI-enabled Low Cost Real Time Mine Subsidence Monitoring, Prediction and Early Warning System for Underground Coal Mines in India	1	**1**
11	**SIH26026**	Development of Mobile (Quadruped)/Handheld Device/System for Real-Time Detection of Narcotics and Explosives across Indian Railways.	1	**1**
12	**SIH26135**	Difficulties in tracking employment outcomes, skill gaps, and the impact of skilling Initiatives	1	**1**
13	**SIH26142**	Deep Learning Based Super Resolution Mapping (SRM) from Medium Resolution Satellite Imageries	1	**1**
14	**SIH26101**	Develop an AI enabled learning platform that identifies competency gaps, recommends personalized training through integration with the iGOT Karmayogi ecosystem, and capable of generating Quizzes and Multiple choice questions (MCQs) from uploaded learning materials to strengthen capacity building in India's Official Statistical System.	3	**3**
15	**SIH26034**	Software System to check compliance of Packaged Commodities under Legal Metrology(Packaged Commodities) Rules, 2011 by scanning products, images and labels.	4	**1**
16	**SIH26126**	Vision Based Autonomous Navigation for Unmanned Ground Vehicle for Outdoor environment	1	**1**
17	**SIH26196**	Student Innovation-Ideas that can boost fitness activities and assist in keeping fit.	2	**2**
18	**SIH26001**	AI-Based early warning and landslide Risk Monitoring System in NER	1	**1**
19	**SIH26088**	Multilingual Cooperative Governance & Legal Assistance Chatbot	1	**1**
20	**SIH26089**	Cooperative Gig Services Platform for Household & Community Services	2	**2**
21	**SIH26191**	Intelligent Identification of Hazard-Based Red Zones, Carrying Capacity Assessment, and Immediate Relocation Needs for Vulnerable Habitations	2	**2**
22	**SIH26017**	Predictive Analytics System for Early Detection of Land Acquisition Delays	1	**1**
23	**SIH26082**	Air Pollution-Weather Coupled Forecasting System (Delhi NCR Focus)	1	**1**
24	**SIH26117**	Sovereign On-Premise Agentic AI Workbench using Open-Weight Multimodal LLMs for Confidential Industrial Work	1	**1**
25	**SIH26228**	Trustworthy Computer Vision Integrity Assurance for Data, Models and Inference Outputs in Multi-Contributor Pipelines	1	**1**

26	**SIH26076**	Development of personalized homepage for 'Mausam' mobile application:	2	**1**
27	**SIH26045**	IP-SAKHI Sahayak a multilingual, RAG-based (source-cited) AI assistant for Intellectual Property and regulatory guidance in Ayurveda, across national and international regimes.	1	**1**
28	**SIH26052**	To develop an AI/ML-enabled adaptive noise cancellation (ANC) system that effectively suppresses stationary, non-stationary, and impulsive defence noises while maintaining high speech intelligibility and real-time performance on embedded hardware.	2	**1**
29	**SIH26011**	3D ULPIN Generation and vertical Property Mapping SYSTEM	1	**1**
30	**SIH26168**	AI-ML based Intelligent Dead Reckoning system for seamless navigation	1	**1**
31	**SIH26229**	Kabadiwala Connect - Bringing the Informal Collector into the Formal Recycling Chain	1	**1**
32	**SIH26100**	AI-Powered Integrated Bid Compliance Verification Platform for GeM Procurement	1	**1**
33	**SIH26165**	AI/NLP Engine to Detect Serious Injury & Fatality (SIF) Precursors in OIL's Unsafe-Act/Unsafe-Condition and Near-Miss Reports	1	**1**
34	**SIH26216**	Student Innovation-Technology ideas in tertiary sectors like Hospitality, Financial Services, Entertainment and Retail.	1	**1**
35	**SIH26164**	Enterprise Cryptographic Discovery & Analysis Tool (ECDAT)	2	**2**
36	**SIH26137**	Quantum-Inspired Intelligent Traffic Route Optimization in Transportation Systems Using Metaheuristic Optimization	1	**1**
37	**SIH26177**	A deployable AI-powered autonomous drone that aids search-and-rescue operations by detecting people and hazards, thereby improving responder safety and reducing victim discovery time.	1	**1**
38	**SIH26189**	AI-Powered Criminal Network Analysis System	2	**1**
39	**SIH26227**	Semantic Retrieval and Multi-Temporal Change Analysis of Satellite Imagery	1	**1**
40	**SIH26176**	ORCA Marine EcoSystem Reasoning with Collaborative Agents	1	**1**
41	**SIH26007**	Safe and Efficient Operation of Mine Vehicles in Fog and Low-Visibility Conditions in Open Cast Iron Ore Mines.	1	**1**
42	**SIH26068**	WeatherGPT: Conversational AI for Weather Forecasting, Alerts, and Climate Information	1	**0**
43	**SIH26106**	AI-Powered Email Threat Detection, GeoLocation and Forensic Intelligence Platform	1	**0**
44	**SIH26156**	Universal Log Pre-processing Framework	1	**0**
45	**SIH26166**	Multi-modal, Sun angle and scale invariant image correspondence using Chandrayaan-2 optical images (OHRC, TMC and IIRS)	1	**0**
46	**SIH26188**	AI-Based Fake Identity & Document Screening System	1	**0**

5. Judging Process & Evaluation Framework

The evaluation framework was aligned with the standard benchmark criteria established by the AICTE Innovation Cell. Each panel evaluated submissions objectively across five primary parameters:

Evaluation Parameter	Weightage	Key Focus Areas & Assessment Scope
1. Novelty & Innovation	**20%**	Uniqueness of technical approach, intellectual property potential, out-of-the-box thinking, and superiority over existing commercial solutions.
2. Technical Feasibility & Architecture	**20%**	System architecture design, modularity, appropriate choice of technology stack, edge/cloud scalability, database schema, and security.
3. Working Prototype / Live Demo	**25%**	Functional completeness of code, UI/UX responsiveness, physical hardware sensor wiring, API integration, and edge device performance.
4. Scalability, Security & Societal Impact	**20%**	Real-world deployability, data privacy compliance, cost-effectiveness, and direct tangible benefit to government bodies and citizens.
5. Defense Pitch & Q&A Handling	**15%**	Clarity of technical communication, team coordination, time management, and ability to address rigorous jury technical questions.

6. Jury Panel & Judges Information

The hackathon was judged by an eminent panel of academic scholars, university leadership, and distinguished external industry specialists:

S.No.	Name of Jury Member	Designation	Organization	Domain Specialization
1	**Prof. (Dr.) Arvinder Kaur**	Director Academics & Dean	USAR & USDI, GGSIPU	Software Engineering, AI Architecture & Higher Tech Education
2	**Dr. Sanjay Kumar Singh**	Assistant Professor & SPOC SIH	USAR, GGSIPU	Robotics, Intelligent Systems, Embedded Edge Systems & IoT
3	**Mr. Harshit Bhatia**	Senior Technology Specialist	NMDC (External Industry)	Smart Automation, Mining Technologies, Cloud & Cyber Defense
4	**Dr. Rahul Johari**	Associate Director, DSW	GGSIPU	Cybersecurity, Distributed Ledger Technologies & Network Protocols
5	**Dr. Amit Kumar**	Associate Professor	USAR, GGSIPU	Hardware Design, Automation & Robotics Systems Engineering

6	**Dr. Priyanka Bhutani**	Associate Professor	USAR, GGSIPU	Machine Learning, Deep Learning, NLP & Computer Vision

7. Official List of 50 Nominated Top Teams (SIH 2026)

As per official notification ref: USAR/Internal-SIH2026/R2-Results dated 08.09.2026, the following 50 teams have secured top ranks based on cumulative Round 2 jury scores and are nominated for national submission:

S.No	Team ID	Team Name	PS ID	Nominated Problem Statement Title
1	**SIH2026-T005**	Vibe Catalyst	**SIH26090**	AI-Driven Market Linkage and Smart Cataloging Mobile Application for Marginalized Artisans
2	**SIH2026-T007**	Stacksmiths	**SIH26047**	Patient Case-Taking Software
3	**SIH2026-T010**	NullPointer	**SIH26192**	Flash Flood Prediction System for Hilly Regions using Multi-Source Data Theme
4	**SIH2026-T013**	mercyntax	**SIH26059**	AI-Enabled Antarctic Sea-Ice, Iceberg Trajectory, and Navigation Decision Support System
5	**SIH2026-T018**	Robo Maniacs	**SIH26218**	Student Innovation-There is a need to design drones and robots that can solve some of the pressing challenges of India such as handling medical emergencies, search and rescue operations, etc.
6	**SIH2026-T019**	Hail Mary	**SIH26167**	SatQuery AI - An Interactive Vision-Language Assistant for Multimodal Remote Sensing Image Analysis through Text Queries
7	**SIH2026-T029**	SAKSHAM	**SIH26027**	AI-Powered Automatic Block Planning to Maximize Asset Availability for Train Operations on Indian Railways
8	**SIH2026-T031**	SYNC THINK\	**SIH26075**	Participants are invited to design and develop CAPACITY CONNECT A Digital Capacity Building and Learning Management Portal to support organizational training, competency development, and knowledge sharing through a centralized web-based platform.
9	**SIH2026-T032**	Cipher	**SIH26124**	AI-Powered Mobile Urban Intelligence Platform Using Public Transport Fleet
10	**SIH2026-T036**	Nirvana	**SIH26025**	Development of an AI-enabled Low Cost Real Time Mine Subsidence Monitoring, Prediction and Early Warning System for Underground Coal Mines in India
11	**SIH2026-T040**	Team OSMOS	**SIH26026**	Development of Mobile (Quadruped)/Handheld Device/System for Real-Time Detection of Narcotics and Explosives across Indian Railways.
12	**SIH2026-T047**	Team Insane	**SIH26135**	Difficulties in tracking employment outcomes, skill gaps, and the impact of skilling Initiatives
13	**SIH2026-T048**	Vibeless coder	**SIH26142**	Deep Learning Based Super Resolution Mapping (SRM) from Medium Resolution Satellite Imageries
14	**SIH2026-T049**	Response200	**SIH26101**	Develop an AI enabled learning platform that identifies competency gaps, recommends personalized training through integration with the iGOT Karmayogi ecosystem, and capable of generating Quizzes and Multiple choice questions (MCQs) from uploaded

				learning materials to strengthen capacity building in India's Official Statistical System.
15	**SIH2026-T052**	Sudarshan	**SIH26034**	Software System to check compliance of Packaged Commodities under Legal Metrology(Packaged Commodities) Rules, 2011 by scanning products, images and labels.
16	**SIH2026-T053**	gingers	**SIH26027**	AI-Powered Automatic Block Planning to Maximize Asset Availability for Train Operations on Indian Railways
17	**SIH2026-T054**	Zenith	**SIH26126**	Vision Based Autonomous Navigation for Unmanned Ground Vehicle for Outdoor environment
18	**SIH2026-T058**	CtrlAltDelete	**SIH26196**	Student Innovation-Ideas that can boost fitness activities and assist in keeping fit.
19	**SIH2026-T062**	Vaayu Vision	**SIH26001**	AI-Based early warning and landslide Risk Monitoring System in NER
20	**SIH2026-T066**	SheCodes	**SIH26088**	Multilingual Cooperative Governance & Legal Assistance Chatbot
21	**SIH2026-T067**	Sweven	**SIH26089**	Cooperative Gig Services Platform for Household & Community Services
22	**SIH2026-T071**	ResQFlow	**SIH26191**	Intelligent Identification of Hazard-Based Red Zones, Carrying Capacity Assessment, and Immediate Relocation Needs for Vulnerable Habitations
23	**SIH2026-T076**	CodeLEOS	**SIH26017**	Predictive Analytics System for Early Detection of Land Acquisition Delays
24	**SIH2026-T078**	Hot Commits	**SIH26082**	Air Pollution-Weather Coupled Forecasting System (Delhi NCR Focus)
25	**SIH2026-T079**	AtypicalMinds	**SIH26117**	Sovereign On-Premise Agentic AI Workbench using Open-Weight Multimodal LLMs for Confidential Industrial Work
26	**SIH2026-T082**	VoidOnyx	**SIH26101**	Develop an AI enabled learning platform that identifies competency gaps, recommends personalized training through integration with the iGOT Karmayogi ecosystem, and capable of generating Quizzes and Multiple choice questions (MCQs) from uploaded learning materials to strengthen capacity building in India's Official Statistical System.
27	**SIH2026-T085**	Coffee & Commits	**SIH26228**	Trustworthy Computer Vision Integrity Assurance for Data, Models and Inference Outputs in Multi-Contributor Pipelines
28	**SIH2026-T086**	KnightShift Coders	**SIH26089**	Cooperative Gig Services Platform for Household & Community Services
29	**SIH2026-T089**	INDRI	**SIH26191**	Intelligent Identification of Hazard-Based Red Zones, Carrying Capacity Assessment, and Immediate Relocation Needs for Vulnerable Habitations
30	**SIH2026-T093**	First Braincells	**SIH26076**	Development of personalized homepage for 'Mausam' mobile application:
31	**SIH2026-T095**	TechRoaches	**SIH26045**	IP-SAKHI Sahayak a multilingual, RAG-based (source-cited) AI assistant for Intellectual Property and regulatory guidance in Ayurveda, across national and international regimes.
32	**SIH2026-T098**	HackSmiths	**SIH26052**	To develop an AI/ML-enabled adaptive noise cancellation (ANC) system that effectively suppresses stationary, non-stationary, and

				impulsive defence noises while maintaining high speech intelligibility and real-time performance on embedded hardware.
33	**SIH2026-T102**	MATRIX	**SIH26011**	3D ULPIN Generation and vertical Property Mapping SYSTEM
34	**SIH2026-T103**	StatusCode200	**SIH26167**	SatQuery AI - An Interactive Vision-Language Assistant for Multimodal Remote Sensing Image Analysis through Text Queries
35	**SIH2026-T105**	Bot Gods	**SIH26101**	Develop an AI enabled learning platform that identifies competency gaps, recommends personalized training through integration with the iGOT Karmayogi ecosystem, and capable of generating Quizzes and Multiple choice questions (MCQs) from uploaded learning materials to strengthen capacity building in India's Official Statistical System.
36	**SIH2026-T106**	KantCode	**SIH26168**	AI-ML based Intelligent Dead Reckoning system for seamless navigation
37	**SIH2026-T108**	BUGWISERZ	**SIH26229**	Kabadiwala Connect - Bringing the Informal Collector into the Formal Recycling Chain
38	**SIH2026-T113**	TerraSentinel	**SIH26100**	AI-Powered Integrated Bid Compliance Verification Platform for GeM Procurement
39	**SIH2026-T119**	Clean Chit	**SIH26047**	Patient Case-Taking Software
40	**SIH2026-T123**	KarigarX	**SIH26165**	AI/NLP Engine to Detect Serious Injury & Fatality (SIF) Precursors in OIL's Unsafe-Act/Unsafe-Condition and Near-Miss Reports
41	**SIH2026-T127**	Lo Cortisol Gangg	**SIH26196**	Student Innovation-Ideas that can boost fitness activities and assist in keeping fit.
42	**SIH2026-T130**	Underdogs	**SIH26216**	Student Innovation-Technology ideas in tertiary sectors like Hospitality, Financial Services, Entertainment and Retail.
43	**SIH2026-T131**	Task Force 27	**SIH26164**	Enterprise Cryptographic Discovery & Analysis Tool (ECDAT)
44	**SIH2026-T136**	Optimus Prime	**SIH26137**	Quantum-Inspired Intelligent Traffic Route Optimization in Transportation Systems Using Metaheuristic Optimization
45	**SIH2026-T137**	ZeroSat	**SIH26177**	A deployable AI-powered autonomous drone that aids search-and-rescue operations by detecting people and hazards, thereby improving responder safety and reducing victim discovery time.
46	**SIH2026-T138**	HACTIVISTS	**SIH26189**	AI-Powered Criminal Network Analysis System
47	**SIH2026-T139**	Overthink & Overfit	**SIH26227**	Semantic Retrieval and Multi-Temporal Change Analysis of Satellite Imagery
48	**SIH2026-T142**	VasuDevs	**SIH26176**	ORCA Marine EcoSystem Reasoning with Collaborative Agents
49	**SIH2026-T144**	UNDER-GODS	**SIH26164**	Enterprise Cryptographic Discovery & Analysis Tool (ECDAT)
50	**SIH2026-T147**	Track Decoders	**SIH26007**	Safe and Efficient Operation of Mine Vehicles in Fog and Low-Visibility Conditions in Open Cast Iron Ore Mines.

8. Official List of Waitlisted Standby Teams

In the event of any unforeseen withdrawal, registration irregularity, or additional slot allocation by AICTE/MIC, the following 5 waitlisted teams are placed on official standby in order of merit:

Waitlist No.	Team ID	Team Name	PS ID	Problem Statement Title
WL-1	**SIH2026-T094**	Her Hustle	**SIH26052**	To develop an AI/ML-enabled adaptive noise cancellation (ANC) system that effectively suppresses stationary, non-stationary, and impulsive defence noises while maintaining high speech intelligibility and real-time performance on embedded hardware.
WL-2	**SIH2026-T045**	Ascend	**SIH26188**	AI-Based Fake Identity & Document Screening System
WL-3	**SIH2026-T101**	HerApex	**SIH26034**	Software System to check compliance of Packaged Commodities under Legal Metrology(Packaged Commodities) Rules, 2011 by scanning products, images and labels.
WL-4	**SIH2026-T003**	Innovative Coders	**SIH26076**	Development of personalized homepage for 'Mausam' mobile application:
WL-5	**SIH2026-T109**	Philia	**SIH26124**	AI-Powered Mobile Urban Intelligence Platform Using Public Transport Fleet

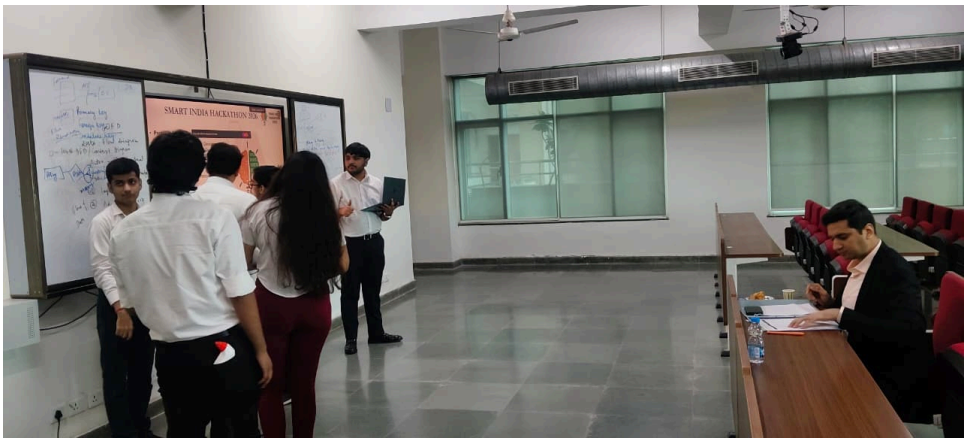
9. Event Photographs & Visual Highlights

Key moments of the SIH 2026 Internal Hackathon capturing inaugural ceremonies, jury evaluations, live prototype defenses, and student interactions:









10. Social Media Promotion, Campaign Outreach & Official Tags

In accordance with Ministry of Education (MoE) and AICTE outreach mandates, the SIH 2026 Internal Hackathon was widely promoted across the university's official social media channels, engaging students, faculty, and industry stakeholders.

Outreach Channel / Parameter	Details & Official Handles
Mandatory Campaign Hashtags	#sih2026 #smartindiahackathon2026 #USAR #GGSIPU #InnovationInAction #AICTE #MoE
Official National Handles Tagged	@mhrd_innovation (Ministry of Education Innovation Cell) @aicte_india (AICTE India) @EduMinOfIndia (Ministry of Education, Govt. of India) @GGSIPUOfficial (Guru Gobind Singh Indraprastha University)
Institutional Social Media Links	LinkedIn: linkedin.com/school/university-school-of-automation-robotics-usar-ggsipu/ Twitter/X: twitter.com/USAR_GGSIPU Instagram: instagram.com/usar.ggsipu.official/

11. Conclusion & Institutional Endorsement

The Internal Hackathon for Smart India Hackathon (SIH) 2026 conducted at the University School of Automation & Robotics (USAR), Guru Gobind Singh Indraprastha University, concluded with resounding success. Through active mentorship, state-of-the-art lab infrastructure, and unbiased

adjudication, the institution has selected 50 exceptional teams representing the highest standard of student engineering talent in India.

USAR remains committed to continuously mentoring and supporting these 50 nominated teams through specialized faculty guidance, prototyping resources, and industry connect sessions, ensuring they achieve top accolades at the national Smart India Hackathon 2026 Grand Finale.