

- Name of the workshop or Activity: **SMART INDIA HACKATHON 2022**
- Organized by: **SCHOOL OF COMPUTER SCIENCE AND ENGINEERING**
- Date of the event: **25th to 29th August 2022**
- Report on workshop or Activity Along with photos

“SMART INDIA HACKATHON 2022”

Grand Finale – Hardware Edition

Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. The first four editions SIH2017, SIH2018, SIH2019 and SIH2020 (Virtual) proved to be extremely successful in promoting innovation out-of-the-box thinking in young minds, especially engineering students from across India.

SIH is a World's Biggest Open Innovation Model being organized under the leadership of Hon'ble Prime Minister Shri. Narendra Modi ji who has influenced everyone through the initiatives like Make in India, Digital India and AatmaNirbharBharat.



Journey of Hackathon and Launch of SIH 2022 Link:

<https://www.youtube.com/watch?v=JHu2YuadxKg>

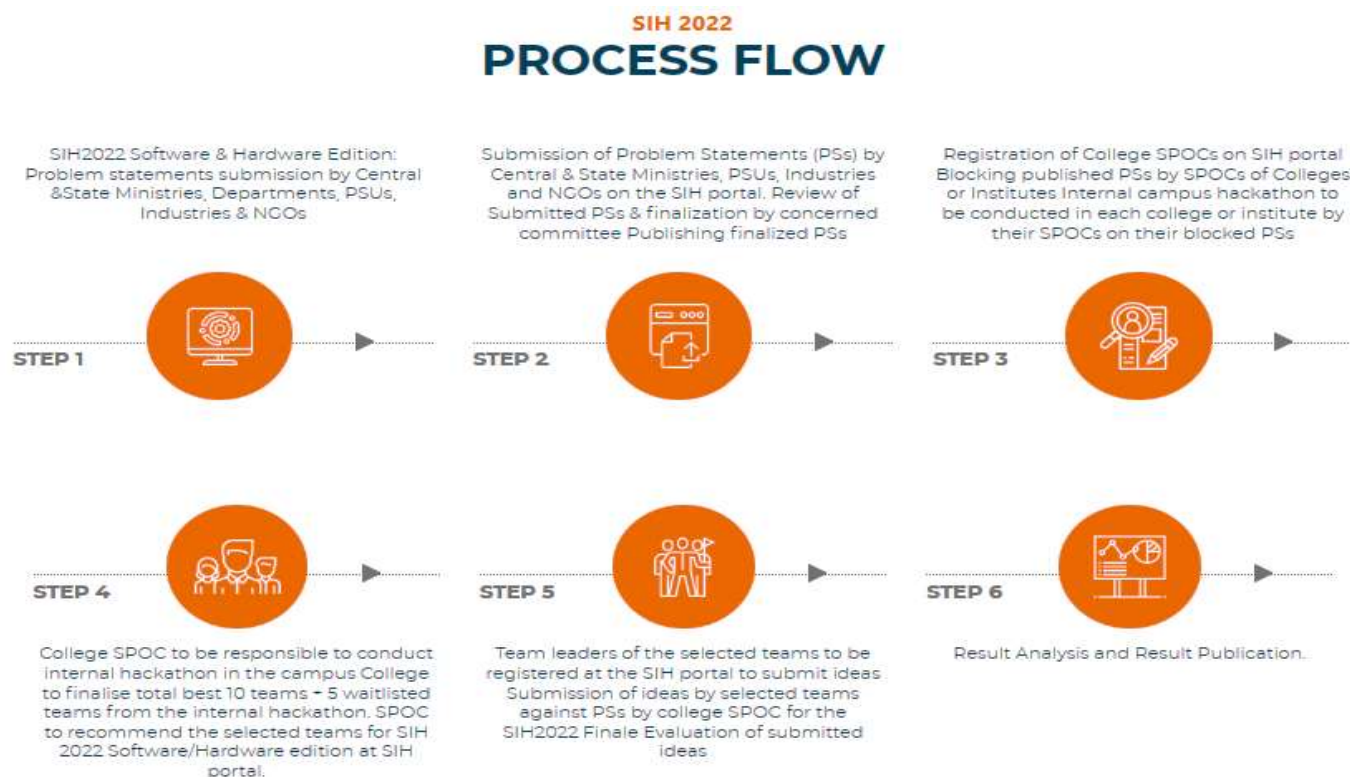
WHAT'S NEW IN SMART INDIA HACKATHON 2022:

SIH 2022 brings the next generation evolution by inclusion of new methodology to inculcate the culture of startup and innovation ecosystem across different age groups i.e., are as follows:

- **SIH Junior (Jr)** – School students from 6th to 12th class will be able to showcase their talent and generate out-of-the-box open innovation ideas.

- **SIH Senior (Sr)** – Regular Students of HEI's pursuing "Graduate/Post-Graduate/Ph.D." will be able to showcase their talent and generate out-of-the-box open innovation ideas.

SIH 2022 Highlights:



Smart India Hackathon 2022 Website Link: <https://www.sih.gov.in/>

With respect to Team Formation, each team consisted of 6 students (preferably 1 Girl student) and 2 mentors (optional).

In SIH 2022, to ensure better qualities of entries and to establish culture of Hackathon at college level, every college which was keen on participating in SIH 2022 has conducted their internal hackathons and only total best 10 teams + 5 waitlisted teams had been shortlisted as eligible for participation in the national initiative.

The ideas from selected top teams from each college were further evaluated and shortlisted for the Grand Finale, which shall be organized on 12th August 2022 (Virtual) for SIH Junior, 25th & 26th August 2022 (Software Edition) and 25th to 29th August 2022 (Hardware Edition) for SIH Senior respectively.

Theme:

There were total of 14 themes, namely, Smart Education, Disaster Management, Smart Automation, Fitness & Sports, Heritage & Culture, MedTech/BioTech/HealthTech,

Agriculture, FoodTech & Rural Development, Smart Vehicles, Transportation & Logistics, Robotics & Drones, Clean & Green Technology, Tourism, Renewable/Sustainable Energy, Blockchain & Cybersecurity and Miscellaneous.

Problem Statement:

A total of 563 problem statements (459 Software and 104 Hardware) were selected and published on Smart India Hackathon 2022 portal: <https://www.sih.gov.in/sih2022PS> for students to submit solutions. The problem statements were submitted by 62 Organizations.

Based on the submission, 476 problem statements had been selected for grand finale and 2033 winner teams of campus level hackathons organized under Smart India Hackathon 2022, comprising of more than 15000 students had participated in this year's SIH grand finale at national level.

As part of Azadi ka Amrit Mahotsav celebrations, the Ministry of Education's Innovation Cell (MIC) and All India Council for Technical Education (AICTE) had identified **75 higher educational institutes / incubators as Smart India Hackathon Nodal Centers** to host the finalists of SIH 2022 and facilitate an environment to conduct the Smart India hackathon in its well defined and established format.

At each nodal center, an officer (Nodal Center Head) designated by the Ministry of Education's Innovation Cell monitored and presided over the proceeding during the entire duration of SIH 2022 Grand Finale.

Prize Money:

Rs. 1,00,000 per problem statement to be given by Problem Statement Organization / Owner (PSO) for SIH Senior and Rs. 25,000 per problem statement for SIH Junior.

Organizers and Partners:

Smart India Hackathon 2022 is jointly organized by **Ministry of Education's Innovation Cell, All India Council for Technical Education, Persistent Systems, and i4c.**

Doordarshan and All India Radio were the media partners of the Smart India Hackathon 2022.

Shell, and AWS were the sponsoring partners of the Smart India Hackathon 2022.

REVA University was selected as one of the nodal centers to host the Grand Finale of Smart India Hackathon 2022 – Hardware edition.

At REVA University as a Nodal Center:

Total **21** teams having **146** participants competed against **5** problem statements from **1** Ministry.

REVA University facilitated problem statements given by **Government of Rajasthan**.

Each problem statement had a winning amount of Rs. **1 lakh**.

21 Teams were from the following places across India:

Team Name	State	Team Name	State
AquaGreen	Nashik, Maharashtra	Blooming Valcanoes	Namakkal, Tamil Nadu
Strom Chasers	Coimbatore, Tamil Nadu	Prison Eliminator	Ahmedabad, Gujarat
Yaantrik	Raipur, Chattisgarh	Striver's	Nandyal, Andhra Pradesh
Ellergy	Coimbatore, Tamil Nadu	Ecosurvivors	Barabanki, Uttar Pradesh
NavNirmal	Nanded, Maharashtra	Hustlersss	Coimbatore, Tamil Nadu
Navgati Rath	Ahmedabad, Gujarat	Mind Blendeers	Kovaipudur, Tamil Nadu
Advaya	Hyderabad, Telangana	Wave Runners_PVPIT	Budhgaon, Maharashtra
Invictus 7	Pune, Maharashtra	VTHT_Challengers (BT)	Chennai, Tamil Nadu
Moxy	Hyderabad, Telangana	Bio-Pointers	Kolkata, West Bengal
Gigarobo_BKBIET	Pilani, Rajasthan	Team IC	Ghaziabad, Uttar Pradesh
Gecv_Chem_05	Valsad, Gujarat		

List of selected Nodal Centers Link:

<https://www.sih.gov.in/shortlisted-nodel-centres>

Detailed Schedule:

On Day 1: 25th August 2022

Inauguration was presided over by Hon'ble Chancellor of REVA University, Dr. P. Shyama Raju, Chief Guest for the inauguration, Shri. Abhilash Rathore, CTO, 4fin.in, Pune.

Gracing the Occasion by Hon'ble Vice-Chancellor, Dr. M. Dhanamjaya, Pro-Vice Chancellor, Dr. Rajashekhar C. Biradar and Registrar, Dr. N. Ramesh.

Time: 8:00 AM to 8:30 AM

Venue: Kuvempu Auditorium

It was followed by Central Inauguration at 9:00 AM from Ministries of MoE, AICTE, MIC in New Delhi.

From 9:30 AM at Amphi Theatre, C V Raman Block, hackathon was started with having first round of mentoring session from 11:30 AM to 1:00 PM.

From 6:15 PM to 6:45 PM, Leadership Talk on **AatmaNirbharBharat & Startup** was conducted for the student teams. Speaker was **Mr. Deepak Sonthalia**, Founder, BLIV Spaces Pvt. Ltd.

From 6:45 PM to 7:45 PM, Cultural Programme was organized from students of School of Performing Arts, REVA University for the student teams.

At 8:00 PM, Hon'ble Prime Minister Shri Narendra Modi ji addressed and interacted with the student teams across India.

On Day 2: 26th August 2022

Second round of mentoring and first round evaluation sessions were conducted for the student teams.

On Day 3: 27th August 2022

Third round of mentoring and second round evaluation sessions were conducted for the student teams.

From 6:15 PM to 6:45 PM, Leadership Talk on **Smart Cities** was conducted for the student teams. Speaker was **Mr. Shashank Krishna**, Manager-IT-iDeCK (Infrastructure Development Corporation Karnataka Ltd.)

From 6:45 PM to 7:45 PM, Cultural Programme was organized from students of School of ECE, EEE, ME and CIVIL, REVA University for the student teams.

On Day 4: 28th August 2022

Fourth round of mentoring and third round evaluation sessions were conducted for the student teams.

At 10:00 AM, team from Doordarshan visited REVA University campus for the coverage of Smart India Hackathon 2022 Grand Finale Hardware Edition and the same was telecasted in DD Chandana.

Link:

https://twitter.com/DDChandanaNews/status/1563799425767833600?t=Y_huh8Fd_H0IV4MEWsZv-w&s=08

From 6:15 PM to 6:45 PM, Leadership Talk on **Innovation, IPR, Start-Up/Entrepreneurship** was conducted for the student teams. Speaker was **Dr. Shivanna D M**, Head IPR - University Industry Interaction Center, REVA University.

From 6:45 PM to 7:45 PM, Cultural Programme was organized from students of School of CSE and CIT, REVA University for the student teams.

On Day 5 (Last Day of the Hackathon): 29th August 2022

Fifth round of mentoring and fourth/final round evaluation sessions were conducted for the student teams.

Valedictory and Announcement of Results with Prize Distribution Ceremony took place in presence of Hon'ble Vice-Chancellor, Dr. M. Dhanamjaya, Shri. Abhilash Rathore, Nodal Center Head, Pro-Vice Chancellor, Dr. Rajashekhar C. Biradar and Registrar, Dr. N. Ramesh.

Time: 6:00 PM to 6:45 PM

Venue: Amphi Theatre, C V Raman Block

List of Evaluators / Mentors of SIH2022 @ REVA University:

Sl. No.	Name of the Evaluator / Mentor	Designation	Company / Institution
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1	Mr. Sujay Kunar Hazra	Data Manager	Shell
2	Mr. Abhishek R. Patel	Technical SME	Shell
3	Mr. Kiran K	Founder	DOM4u Pvt. Ltd.
4	Mr. Zain Ahmed N	Co-founder	ZANS
5	Prof. Kanaiya V. Kanzaria	Assistant Professor, School of CSE	REVA University
6	Dr. Shivanna D M	Head IPR, UIIC	
7	Dr. Madan H T	Assistant Professor, School of ECE	
8	Dr. Ravi Kumar Y B	Associate Professor, School of CIT	
9	Prof. Ravi Shankar D	Assistant Professor, School of ECE	
10	Dr. Joseph Michael Jerard V	Professor, School of CIT	
11	Dr. Syed Muzamil Basha	Associate Professor, School of CSE	
12	Dr. Srinivas M	Assistant Professor, School of AS-CHE	
13	Dr. N. P. Nethravathi	Professor, School of CSE	
14	Dr. Raveendra G	Assistant Professor, School of ECE	
15	Dr. Ritesh Dash	Associate Professor, School of EEE	
16	Dr. K. Jyotheeswara Reddy	Associate Professor, School of EEE	
17	Dr. Raju B S	Professor, School of ME	
18	Dr. Rajeev Ranjan	Associate Professor, School of CSA	
19	Dr. Madan J	Associate Professor, School of ME	
20	Dr. Thontadari C	Assistant Professor, School of CSA	

21	Dr. Gitanjali Pradhan	Assistant Professor, School of AS-CHE	
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Winners list at Nodal Center - REVA University for Smart India Hackathon 2022:

Organization	Government of Rajasthan		
PSID	Problem Statement and Team Details		Prize Amount
TK1045	To find all-new ways to store electric energy in bigger volume and less in size and weight.		Rs. 1,00,000/-
	Team Name	Ellergy	
	Team Leader Name	Janarthanan V	
	Team Members	Sivakeerthana S, Sudalaimuthu Suresh P, Abiya Primency M, Aparna V, Swetha P	
	Team Mentors	Prof. Brathikan V M, Prof. Veeramanikandan C	
	College Name	Kumaraguru College of Technology, Coimbatore, Tamil Nadu	
TK1047	To build robots for all kinds of dedicated tasks such as cleaning shoes, planting crops, cleaning windows, etc.		Rs. 50,000/-
	Team Name	NavNirmal	
	Team Leader Name	Ishwar Gorakh Gade	
	Team Members	Snehdeep Prakash Alane, Hanmant Dattatraya Konale, Suyog Pravin Moon, Nipun Prabhakar Dhandage, Pragati Hanumant Darekar	
	Team Mentor	Dr. Suhas Sudhakar Rao Gajre	
	College Name	S.G.G.S. Inst. of Engineering & Technology, Vishnupuri, Nanded, Maharashtra	
	Team Name	Navgati Rath	Rs. 50,000/-
	Team Leader Name	Prajapati Smit Kiritbhai	
	Team Members	Harsh Balsaraf, Ayan Vaidya, Niraj Patel, Gautam Reshamwala, Yukta Dodia	

	College Name	L. D. College of Engineering, Ahmedabad, Gujarat	
TK1048	To innovate a smart material that change their behavior based on environmental conditions i.e., taking the carbon out of carbon dioxide, and returning the dioxide back to air.		Rs. 1,00,000/-
	Team Name	GECV_CHEM_05	
	Team Leader Name	Smitpuri Shaileshpuri Gosai	
	Team Members	Srushti Sanjay Agrawal, Khushal Savajibhai Italiya, Hitendra Yashavantbhai Hedav, Yuvrajsinh Dharmendrasinh Gohil, Avanee Pareshbhai Vadera	
	Team Mentor	Dr. Sanjay Kumar Srivastava	
	College Name	Government Engineering College, Valsad, Gujarat	
TK1049	To develop new ways of wastewater management system in rural areas.		Rs. 1,00,000/-
	Team Name	AquaGreen	
	Team Leader Name	Pratik Ravsaheb Gurav	
	Team Members	Payal Avhad, Ritika Yadav, Shivam Tambe, Harshal Kumbhar, Aniket Jadhav	
	Team Mentor	Dr. Pravin S. Bhandari	
	College Name	K. K. Wagh Education Society's K. K. Wagh Polytechnic, Nashik, Maharashtra	

SIH Junior Winners:

Team Name	ROBO MASTER
Team Leader Name	Devansh Gautam Gaikwad
Class	7 th std
Team Mentors	Mr. Gautam R. Gaikwad, Mr. Vivek Verma
Team SPOC	Mrs. Gayathramma K
School Name	Whitefield Global School, Bengaluru
Prize Amount	Rs. 25,000/-
Team Name	VIDYUTH - 5
Team Leader Name	Samrudh Ganesh
Team Member	Nithin N
Class	12 th std CBSE
Team Mentors	Mr. Shashidhar T. R., P. J. Rao
School Name	Jawahar Navodaya Vidyalaya, Chikkaballapur
Prize Amount	Rs. 25,000/-

Smart India Hackathon 2022 Organizing Committee:

Prof. Kiran M (Nodal Center In-charge for SIH 2022)

Prof. G C Sathish

Prof. Ananda Shankar A

Faculty and Staff from School of CSE, CIT, ECE, EEE, ME, CIVIL, CSA, AS and UIIC.

Some snapshots of the **Smart India Hackathon 2022 Grand Finale – Hardware Edition** are provided below:











