INSTITUTE INNOVATION COUNCIL

Pt. Ravishankar Shukla University, Raipur [C.G.] 492010

Website: https://www.prsu.ac.in Email ID: iicpresident.prsu@gmail.com

About the Event:

The Internal Smart India Hackathon 2023 was a collaborative effort organized by the President of Institution Innovation Cell in conjunction with the School of Studies in Electronics and Photonics and the IRETM at Pt. Ravishankar Shukla University in Raipur. This event took place on the 27th September 2023, with a profound aim to tap into the innovative and technical capabilities of young minds. Its core objectives revolved around several key aspects:-

- Encourage creative problem-solving among students.
- Foster innovation in addressing real-world challenges.
- Promote collaboration between academia and industry.
- Cultivate a culture of entrepreneurship and technological excellence.

About the Problem Statement:

For the internal hackathon, several problem statements were carefully curated, encompassing diverse domains such as healthcare, education, agriculture, and more. These problem statements were designed to challenge participants and spark innovative solutions to pressing issues. In the realm of healthcare, the challenge is to develop a ground breaking telemedicine platform that revolutionizes healthcare delivery by facilitating remote patient monitoring, bridging the gap between healthcare providers and patients, and increasing medical service accessibility while reducing physical visits. Similarly, in education, the focus is on creating an AI-powered adaptive learning system that tailors educational content and pace to individual student needs, thereby enhancing education quality, student engagement, and learning efficiency. Meanwhile, in agriculture, the objective is to design an IoT-based smart irrigation system that optimizes water usage, monitoring soil conditions, weather, and crop needs in real-time to conserve water resources, boost crop yields, and promote sustainable farming. In the environmental sphere, the challenge entails building a technology-driven solution for waste management and recycling, streamlining waste processes to reduce landfill waste and minimize environmental impact. Lastly, in e-governance, the aim is to enhance public service efficiency through digital platforms, transforming government services for accessibility, transparency, and citizen-friendliness while reducing bureaucratic obstacles and promoting citizen engagement and accountability in governance practices.

Some of the problem statements selected included:

1.Healthcare: Developing a telemedicine platform for remote patient monitoring.
2.Education: Creating an AI-driven adaptive learning system for personalized education.

3.Agriculture: Designing a smart irrigation system using IoT technology.
4.Environment: Building a solution for waste management and recycling optimization.
5. E-Governance: Enhancing the efficiency of public service delivery through digital platforms

S.No	Team Name	ID	CATEGORY	PROBLEM STATEMENT
1.	DX	SIH1480	Hardware	Student Innovation
2.	POWER RANGERS	SIH1300	Hardware	Automated Public Lighting
3.	Extruder	SIH1313	Hardware	A system of IoT Devices to prevent under-loading / overloading of Railway wagons.
4.	Pride and power	SIH1426	Hardware	Technological solutions for safe disposal of menstrual waste
5.	Smart Studies	SIH1466	Hardware	Student Innovation
6.	Green and Clean warriors	SIH1472	Hardware	Student Innovation
7.	Playful Planners	SIH1480	Hardware	Student Innovation
8.	Mark 85	SIH1298	Hardware	Student Innovation
9.	Bhoomiputra	SIH1489	Software	Student Innovation
10.	Soundhi	SIH1293	Hardware	Automatic regulation of valves for release of water based upon soil moisture availability in the root zone of the crop, using artificial intelligence, in a piped and micro irrigation network of irrigation system.
11.	Agile team	SIH 1427	Hardware	Call for Toilet technology

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Event Photos:

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Participating Teams:

Team Name: DX
Affiliation: Centre for Basic Science

Team Name: Power Rangers
Affiliation: S.o.S in Electronics and Photonics

Team Name: Extruder
Affiliation: S.o.S in Electronics and Photonics

Team Name: Pride and Power
Affiliation: S.o.S in Electronics and Photonics

Team Name: Smart Studies
Affiliation: Centre for Basic Science

Team Name: Clean Warrior
Affiliation: IRETM

Team Name: Green Warrior
Affiliation: IRETM

Team Name: DX
Affiliation: Centre for Basic Science

Team Name: Bhoomiputra
Affiliation: S.o.S in Biotechnology

Team Name: Mark85
Affiliation: Centre for Basic Science

Team Name: Soundhi
Affiliation: S.o.S in Electronics and Photonics

Team Name: Agile Team
Affiliation: S.o.S in Biotechnology

Judging Process:

The judging process for the hackathon projects was a comprehensive and equitable procedure that comprised the following well-structured stages:

1. **Project Presentations:** To kick off the evaluation process, each participating team had the opportunity to present their innovative solution. These presentations were made to a panel of judges who would closely examine and assess each project.
2. **Evaluation Criteria:** Projects were subjected to a rigorous assessment based on predefined criteria. The criteria encompassed several key dimensions, including innovation, feasibility, potential impact, and technical excellence. This provided a clear framework for judging and ensured that all projects were evaluated consistently.
3. **Q&A Session:** Following the project presentations, judges engaged in a question-and-answer session with the participating teams. This session allowed judges to seek clarifications, gain deeper insights into the projects, and assess the teams' knowledge and understanding of their solutions.
4. **Scoring:** In this phase, judges individually scored each project based on the established evaluation criteria. This scoring process was conducted meticulously to provide a quantitative measure of each project's performance, allowing for objective assessment.
5. **Deliberation:** Once all projects had been presented, evaluated, and scored, the jury panel convened to deliberate and reach a consensus on the top-performing teams. During this deliberation, judges discussed their assessments, shared insights, and collectively determined the projects that demonstrated the highest levels of innovation, feasibility, impact potential, and technical excellence.

This systematic judging process ensured that the evaluation of hackathon projects was both thorough and fair, with a clear and structured approach that allowed for a comprehensive assessment of the participants' creative and technical endeavors.

Jury Panel:

We were honoured to have a distinguished jury panel comprising experts from various fields. Here are some of the jury members:

1. **Dr. Zenu Jha** (Professor, Department of Plant Molecular Biology & Biotechnology, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh)

2. **Dr. Pradeep Singh** (Associate Professor, Department of Computer Science & Engineering, National Institute of Technology, Raipur, Chhattisgarh)
3. **Dr. Dilip Singh Sisodia** (Associate Professor & Head, Department of Computer Science & Engineering, National Institute of Technology, Raipur, Chhattisgarh)
4. **Dr. Bibhudendra Acharya** (Associate Professor, Department of Electronics & Communication Engineering, National Institute of Technology, Raipur, Chhattisgarh)

Nominated Top Teams:

The following teams emerged as the top performers in Internal Smart India Hackathon 2023:

1. Power Rangers: Problem Statement - Automated Public Lighting[SIH1300]
2. Agile Team : Problem Statement - Call for Toilet technology[SIH1427]
3. Clean and Green Warrior : Problem Statement - Student Innovation[SIH1472]
4. Extruder : Problem Statement - A system of IoT Devices to prevent under-loading / overloading of Railway wagons. [SIH1313]
5. Soundhi : Problem Statement - Automatic regulation of valves for release of water based upon soil moisture availability in the root zone of the crop, using artificial intelligence, in a piped and micro irrigation network of irrigation system[SIH1293]
6. DX : Problem Statement - Student Innovation[SIH1480]
7. Bhoomiputra: Problem Statement - Student Innovation[SIH1489]
8. Pride and Power: Problem Statement - Technological solutions for safe disposal of menstrual waste[SIH1426]
9. Mark 85: Problem Statement - Student Innovation[SIH1298]

Judges Information

Our panel of judges brought extensive experience and expertise to the hackathon. Here are some details about them:

1. **Dr. Zenu Jha**, a distinguished researcher in the field of plant molecular biology and biotechnology at the Department of Plant Molecular Biology and Biotechnology, Indira Gandhi Krishi Vishwavidyalaya, Raipur, has made significant contributions to the following research areas are Doubled haploid production in Rice, Doubled haploid production in brinjal, Mutagenesis to develop new rice varieties, Bamboo tissue culture, Spine gourd tissue culture With 44 publications and 189 citations to her name, Dr. Jha continues to advance our understanding of plant genetics and tissue culture techniques for the benefit of agriculture and biotechnology.

2. **Dr. Pradeep Singh**, an accomplished Associate Professor in the Department of Computer Science and Engineering at NIT Raipur, has made significant contributions to the field of computer science and software engineering with 15 years of teaching experience. His scholarly work includes 33 Journal Articles, 6 Book Chapters, 39 Conference Proceeding, 1 Book and 1 Review. With a remarkable 843 citations and an H-index of 16, Dr. Singh's research has had a substantial impact on the field. His primary research interests encompass areas such as Machine Learning, Software Engineering and Database Management Systems (DBMS). His dedication to these areas has led to valuable insights and advancements within the computer science discipline.

3. **Dr. Dilip Singh Sisodia**, an accomplished academic and Head of the Department of Computer Science & Engineering at the National Institute of Technology, Raipur, Chhattisgarh, has a distinguished academic record with extensive experience and expertise in the field of computer science and software engineering. His notable achievements include 63 Journal Articles, 10 Book Chapters, 9 Books, 48 Conference Proceedings, 1 Review and 1 Other publication. Dr. Sisodia has made significant contributions to research and academia, with an impressive total of 1,204 projects. His work has garnered 480 citations and earned him an H-index of 15, reflecting the impact of his research on the field. His teaching experience spans 15 years, during which he has imparted knowledge and expertise in various domains within computer science, including Applications of Soft Computing/Machine Learning Techniques, Data Mining, Artificial Intelligence, Advanced Computer Networks, Image Processing and Theoretical Computer Science. Dr. Sisodia's contributions and dedication to these areas have enriched the field of computer science and continue to inspire future generations of researchers and students.

4. **Dr. Bibhudendra Acharya** is a highly accomplished Associate Professor in the Department of Electronics & Communication Engineering at the National Institute of Technology, Raipur, Chhattisgarh. His impressive academic record reflects his dedication to research and teaching in the field of Electrical and Electronic Engineering. Dr. Acharya's notable achievements include 48 Journal Articles, 10 Book Chapters, 45 Conference Proceedings, 1 Review and 3 other publications. With an astounding 880 citations and an H-index of 17, Dr. Acharya's research has had a substantial impact on his field, demonstrating his influence and contributions to academia. His extensive 14 years of teaching experience has allowed him to share his expertise with students in various areas, including Cryptography and Network Security, Signal Processing, Mobile Communication and Soft Computing. Dr. Acharya's dedication to both research and education has significantly enriched the field of Electrical and Electronic Engineering, and he continues to inspire and educate future generations of engineers and researchers.

Participation Statistics

Total Number of Teams: 12
Total Number of Students: 62
Gender-wise participation:
Male: 39
Female:23

Social Media Links

You can find updates and highlights from the Internal Smart India Hackathon 2023 on the following social media platforms:
https://www.facebook.com/profile.php?id=61550557089486

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