

Smart India Hackathon 2022

ROBOTICS CLUB

Deen Dayal Upadhyaya College

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Starting with the one day offline Internal Hackathon organised by Robotics Club on 25th March 2022 which was open for all the year students, irrespective of courses where they enthusiastically participated. Students from different programs participated showing their skills in different fields such as coding, Drone development, mechatronics etc. Total 50 students participated forming a group of 5 students there were total of 10 teams competing where out of 10 groups, 3 were selected. The theme of the Hackathon was student innovation.

Selected teams participated in the Smart India Hackathon (SIH) 2022 which is a nationwide product development competition, where problem statements are posed to students for innovative solutions to some of the pressing problems, we face in our day to day lives.

It is a matter of pride that Under the Mentorship of Prof. Ravinder Kaur, two teams one from Hardware edition and one from software edition has attained a national rank under their problem statement.

In SIH Hardware Edition, our team Sustainable Daily raised the bars of our robotics club by coming up as first runner ups and winning the prize of Seventy-Five Thousand and other goodies. The team consists of six students, Mr. Milan Singh, Mr. Rohan Singh, Mr. Amber Mishra, Ms. Ayushi Dixit and Mr. Rohan Joshi under the leadership of Mr. Sourav Patel. The problem identified by them was of road accidents due to commercial vehicles. The solution identified by them was a device whose main work is to ensure that when the truck is to begin its journey, the driver is in perfect state to drive. If this condition is not met the truck cannot start. The GPS in the device monitors the location and speed of the vehicle and performs Geo-fencing. The ESP-32 cam does live time monitoring and records the data on the server. In case of a mishappening, alert is sent to the fleet owner so that necessary steps could be taken. The targeted group was of commercial vehicles.



Another moment of pride was that in SIH Software Edition our another team DWings, with team leader Ms. Aayushi Joshi and other team members, Mr. Shubham Agarwal, Ms. Sakshi Bisht, Mr. Harsh Yadav, Mr. Yash and Ms. Rishika Thakur also won prize pool of Fifty Thousands by coming up as Second Runner ups. Here the problem identified was of a need to design drones and robots that can solve some pressing challenges of India such as handling medical emergencies, search and rescue operations, etc. they came up for a solution by creating a hassle-free, autonomous drone-delivery system to transport medical supplies in times of urgency where road transportation isn't an option. They created their own website to interact with the drone's sensors and to make the UAV more reliable. The aim was to provide drone-delivery service in medical emergency and for surveillance purposes during calamities to implement search and rescue operations.

The hardwork of all the students and the mentors was worth applause.



**Dr. Ravinder Kaur
Convenor
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