Robotics Society NITH - Information Document

1. Introduction

This document provides detailed information about the society, including its history, leadership, ongoing projects and events. This information will be used to train our chatbot, making it an effective tool for both members and visitors.

2. Society Overview

2.1. Founding Date

Founded:

2.2. Mission and Vision

Mission: Build and sustain a culture to be self-reliant to accomplish our vision, by emphasizing the development of individual quality.

Vision: To be a luminary of the Indian society in the field of Robotics.

2.3. History

Brief History: RoboSoc NITH was co-founded by Kashish Verma and the late Lamyanba Heisnam. It aims to develop a strong culture of robotics within the NIT Hamirpur community.

3. Leadership

3.1. Presidents

Year	President Name
2024	Aakash Tiwari
2023	Prakul
2022	

3.2. Vice Presidents

Year	Vice President Name
2024	Arjun Thakur
2023	Abhishek Kumar
2022	

4. Board Members and Their Roles

4.1. 2024

Role	Member Name
President	Aakash Tiwari
Vice President	Arjun Thakur
General Secretary (Project)	Milind Gupta
General Secretary (Competitions)	Varun Jain
Treasurer	Sarika Lakhotia
Technical Head (Programming)	Akhil Sharma
Technical Head (Programming)	Vanshika Gyanchandani
Core Coordinator	Mahima Gaur
Core Coordinator	Akansha Sharma
Core Coordinator	Shriayansh Singh Chaihan
Core Coordinator	Gautam Jangir
Core Coordinator	Urvashi Lamba
Core Coordinator	Harsh Sharma

4.2. 2023

Role	Member Name
President	Aakash Tiwari
Vice President	Arjun Thakur
General Secretary (Project)	Milind Gupta
General Secretary (Competitions)	Varun Jain
Treasurer	Sarika Lakhotia
Technical Head (Programming)	Akhil Sharma
Technical Head (Programming)	Vanshika Gyanchandani
Core Coordinator	Mahima Gaur
Core Coordinator	Akansha Sharma
Core Coordinator	Shriayansh Singh Chaihan
Core Coordinator	Gautam Jangir
Core Coordinator	Urvashi Lamba
Core Coordinator	Harsh Sharma

5. Executive Members

5.1. 2024 Executives

Name	Roll Number
Ashish Ranjan	23BME025
Kartik Sharma	23BCH032
Jai Krishan Sharma	23BCS041
Manya Singh Lalhall	23BCS060
Nikit Bhari	23BCS069

Prakhar Pandey	23BCS077
Punitha Narasegowda	23BCS081
Rishabh Sharma	23BCS088
Sabhya Dhiman	23BCS094
Tanishk Saini	23BCS114
Adarsh Kumar Upadhya	23BCE003
Akshat Sharma	23BCE007
Namish	23BEC065
Nimish Saxena	23BEC068
Shubham Atri	23BEC096
Vedansh	23BEE118
Vaibhav Shukla	23BEE114
Areen Sharma	23BCE025
Chirayu Pandey	23BME033
Disha Sachan	23BME053
Khushi Pandey	23BME059
Mohit Sharma	23BMS020
Robin Rawat	23BMS029
Divye Vaibhav Mishra	23DCS007
Sarthak Katiyar	23DCS024

5.2. 2023 Executives

Name	Roll Number
Anuj Nautiyal	22BME093
Putul Singh	22BME080
Sambhav Parmar	22BME097

Shivam Uppal	22BME103
Saeesh Ghoghale	22BME093
Aashish Kumar	22BEE037
Akhil Sharma	22BEE015
Utkarsh Aggraval	22BEE116
Harpreet Kaur	22BCE040
Ritwiz Singh	22BCS047
Sarthak Chaudhary	22BCS090
Yashita Arya	22BCS120
Sumit Kumar	22DCS028
Deepti	22BEE054
Avisheet Srivastava	22DCS005
Sanya Gupta	22DCS024
Mayan Yadav	22BEC060
Anish Khan	22BEC028
Anshuman	22BEC024
Anup Kumar	22BEC025
Komal	22BEC045
Sakshi Meena	22BEC084
Dishant Gupta	22BPH016
Akansha Verma	22BPH006
Namrata	22BCH034
Nitya Pal	22BCH036
Kshitij Priyank	22BME048

Purushottam Singh	22BME078

5.3. 2023 Volunteers

Name	Roll Number
Harpreet Kour	22BCE040
Aditya Bhardwaj	22BCH002
Sania Arora	22BCH055
Abhishek Godara	22BCS007
Khushi Singh	22BCS056
Kushal Kesharwani	22BCS057
Prithika Datta	22BCS078
Ritwiz Singh	22BCS087
Yashita Arya	22BCS120
Gaurika Sharma	22BCE040
Mayan Yadav	22BEC060
Yogesh Dogiwal	22BEC116
Anahita Sharma	22BEE017
Ashish Kumar	22BEE037
Avani Srivastava	22BEE041
Anuj Nautiyal	22BME024
Kshitij Priyank	22BME056
Paras Sondhi	22BME074
Purushottam Singh	22BME078
Saeesh Ghoghale	22BME093
Anshul Choudhary	22DCS003

Avisheet Srivastava	22DCS005
Sanya Gupta	22DCS024

6. Projects

6.1. Robotic Arm

Description: A project aimed at designing a functional robotic arm with precise control and multiple degrees of freedom.
Status: In Progress

6.2. Autonomous Underwater Vehicle (AUV)

Description: Developing an AUV for underwater exploration and data collection, with a focus on navigation and obstacle avoidance.
Status: In Progress

6.3. Line Following Bot

Description: Creating a robot capable of following a predefined path using sensors, focusing on real-time data processing and control systems.
Status: Completed

6.4. Gesture-Controlled Bot

Description: A robot controlled by hand gestures. This project focuses on integrating sensors and machine learning algorithms to interpret hand movements and translate them into robotic actions.
Status: Completed

6.6. 3D Scanner

Description: Development of an affordable, high-resolution 3D scanner for personal use. It uses line lasers and 3D triangulation to generate a point cloud for creating 3D models. The scanner operates on a Raspberry Pi with onboard software, requiring no additional installations.
Status: In Progress

6.7. Driverless Car

Description: A prototype driverless car that detects roads, follows paths, and recognizes traffic signals using Raspberry Pi, camera, and ultrasonic sensors. The project focuses on object detection and neural network training using OpenCV.
Status: In Progress

6.8. Teleoperation Using Leap Motion

Description: Developing a system to replicate hand gestures for teleoperation using Leap Motion. The project includes a robotic hand controlled via a microcontroller, translating gestures into precise movements.
Status: In Progress

6.9. Vision-Based Pick and Place Robotic Arm

Description: Implementing a vision system on a robotic arm to recognize objects and perform pick-and-place operations using OpenCV. The system communicates object positions to the arm for execution.
Status: In Progress

7. Events

7.1. Robosoc Workshop

Title: Robosoc Workshop
Date: []
Description: This event was organized for first-year students to introduce them to Robotics and the Robotics Society. More than 500 students attended the workshop.
Outcome: Approximately 300 students came for the interview for the Robotics Society. 6.2.