



# HALDIA INSTITUTE OF TECHNOLOGY

## PRAYUKTI 2023

ANNUAL TECHNO-MANAGEMENT EXTRAVAGANZA

APRIL 3<sup>rd</sup> – 6<sup>th</sup> 2023

### LAKSHYA

A game of strategy, accuracy, hurdles and challenges with the wireless robots fighting to win against each other passing all the obstacles.

Zig-zag paths, short tunnels and even stones, marble and sand all in their way to reach the finish line without falling off the track.

Get ready to witness the chills and shivers of Lakshya 2k23, with circuit heads competing against each other Problem Statement to build a remote controlled electric-powered robot that can be used to complete broken pathways and hurdles. **Introduction:**

"Unleash your bot's potential on the ultimate futuristic city track with Lakshya - the ultimate challenge for the tech-savvy adventurer in you! Race to the future where man and machine unite for the ultimate test of speed and precision!"

### Problem Statement:

The goal is to create a remotely operated bot capable of competing against the clock on a city track while confronting various hurdles on the pathway.

### Task:

The robot has to perform multiple tasks to cross different types of hurdles, testing the endurance and efficiency of the bot.

### Rules:

- Robot Specifications: • The dimensions of the bot should be no more than 25x25x15 (in cm, length x breadth x height respectively).  
The robot has to be wireless.

- The bot weight should not exceed 1 kg.
- Team specifications:
- This is a group event with no more than five members comprising each team.
- A member cannot be a part of more than one team.
- Point system
- The team will gain points by passing each hurdle successfully. The points will vary with each hurdle.
- In case of manual assistance, 5 points are deducted with the touch of the hand.
- If the team decides to skip a hurdle, 10 points are deducted from the team.
- The total time is recorded which is considered in case of a tie decided by total points.
- If the bot touches the fence, 2 points are deducted per touch.
- In case of the robot falling off the hurdles, 5 points are deducted per fall. • Any discrepancies will be solved through the judges' final decision.

### Round 1:

- Round one is an individual bot event.
- This round focuses on the robot's ability to cross the hurdles adhering to the rules in minimal time.
- The teams will be qualified on the basis of the total points and time achieved upon the completion of the track.
- Teams qualifying in Round 1 will proceed on to round 2.

### Round 2:

- The qualified teams will now be pitted against each other in a race against time.
- Maintaining the rules, the teams will race their bots against each other to attain the top positions of victory.

Student Coordinator	Phone No.	Email ID
Shreyan Gautam (ECE)	7050596954	shreyangautam005@gmail.com
Mohini Singh (EE)	8102636653	mohiniqueer123@gmail.com
Subham Kumar Singh (EE)	9110029366	subhamkumarsingh1999@gmail.com
Suraj Kumar (ECE)	9097646544	Surajkumar0527@gmail.com
Kaustav Ghosh (ECE)	728302997	Kaustavghosh47@gmail.com