TRIDENT ACADEMY OF TECHNOLOGY
ROBOMAGE CLUB

(A Technical Club for Robotics, Mechatronics, Artificial Intelligence and Image Processing)

http://roboclub.tat.ac.in/

First Event

Date:16/02/2018   **Time:-11.00AM**

Battle Bots –Survival of Robots

An Autonomous Robotic competition

Event

An arena will be designed by the coordinators and all participant teams have to leave their bot in it. An overhead camera will be attached over the arena, whose feed will be supplied to all participants. The Idea is a battle among all the bots at once just by shooting without any physical contact among the bots. Participants have to design their own algorithms to attack and dodge. A rectangular piece of thermocol will be fixed on top of the bots without hindering the sight of the aruco markers, which will be treated as life of a bot. The last bot standing will be the winner.

Goals

1. Participants will learn Python, the concept of Computer Vision, Arduino Coding & XBee interfacing.
2. The Event will raise Robot Enthusiasm as the participants will be working on live, hands on project.
3. The competition will seem more life like and be thrilling.

Rules & Regulations

1. No bot should make direct physical contact with the other, any intended actions to damage the opponents bot with human interference will lead to disqualification.

2. Once all three Health Thermocol are damaged the bot will be eliminated.

3. All bots must be of length : 12 inch and width 12 inch.

4. Each team must have 5 members.

Requirements

1. Arduino Uno
2. Servos
3. Motors
4. Wheels
5. L293D Motor Driver
6. Arena
7. USB Camera
8. Wheels
9. Chassis Material
10. Motor Clamps
11. Sonar

Setup Cost

Sl No	Component	Approx Cost Rs
1.	Arduino Uno	400
2.	Servos Two Nos	240
3.	Motors Two Nos	240
4.	Wheels	150
5.	L293D Motor Driver	190
6.	Arena	600
7.	USB Camera	1800
8.	Flex Two Nos	1000
9.	Chassis Material	100
10.	Motor Clamps	30
11.	Sonar	400
12.	Misc	300
Total		**Rs 5450/-**

1st Prize- Rs 7000/-

2nd Prize-Rs 6000/-

3rd Prize-Rs 5000/-

2nd Event

Robotics Exposition-2018

Date 15/02/2018   Time:-2.30PM

The event is planned with different concept based on technological challenges to facilitate participation from different categories of talent. The theme based Exposition is aimed to harness the potential ideas or concepts or technological innovation in any form such as

1. Soldier Assistance Vehicle
2. Climbing Robot
3. Battlefield debris clearance
4. Mine detection
5. Underwater Survey System
6. Women security.
7. Any other application for Robotics and Unmanned Systems.

What Can Be Exhibited

- Innovative ideas
- Concepts through graphics
- working models
- Prototype
- Hardware
- Posters

Rules

1. The medium of communication for the competition shall be English.
2. It is mandatory that the participating institute is either from NIT / IIT or equivalent or from an institute recognized by AICTE.
3. Time of presentation will be 20 Min.
4. Model weight should not exceed 3 kg.
5. Power point presentation should not exceed 15 slides.
6. Winners will be decided by the recommendation of Expert committee.

1st Prize-Rs 2500/-

2nd Prize-Rs 2000/-

Faculty Co-ordinators:-

1. Mr. Arun Kumar Pradhan
2. Mr.Shuvendra Kumar Tripathy
3. Mr.Satya Narayan Rath
4. Mr.Rizwan Khan
5. Mrs. Monalisa Rout