

ARMY INSTITUTE OF TECHNOLOGY

CENTER OF EXCELLENCE FOR AI AND ROBOTICS

VISION: To become a leading learning center for Artificial Intelligence and Robotics by providing a conducive environment with transferring engineering knowledge, inculcating creative thinking, and generating passion for doing it yourself approach which will make them Industry ready.

MISSION:

- Provide students the knowledge that makes them professional engineers, inculcate within, a solid base in mechatronics engineering, analytical and rational skills, for making them future leaders.
- Develop an accomplished human resources with an aptitude for entrepreneurship capabilities, team spirit and novel approach for their professional careers with lifelong learners.
- Impart quality learning culture to students to promote high standards of professional ethics, transparency, and accountability.

Academic Year	:	2017-18
Name of Faculty IC	:	Avinash Paitl
Name of Secretary	:	1. Akash Tomar 2. S Pavithra
Budget Allocated by Institute	:	6,00,000
Sponsorship Received	:	1
Events Conducted	:	

Sr. No.	Name of Event	Details of Events	No. of Participants	Name of Winner with Position	Photo of Event with Caption
1	New Design for a vertical water turbine to trap energy from	In this project we have proposed a new design for a water turbine which can be used both in small and large scale energy production. The best thing in the proposed design is that it does not	Shivam Mishra and Sachin Dwivedi	1 st Position at National Level with winning 10 Lakh Rupee	

	surface water flow	need any dam for the setup, it is a water turbine used to trap energy from the surface of the water flow irrespective of the flow of the water stream. This setup of new design can be used between span under the bridges, In the river wherever required kept at a distance where the flow became again laminar from the turbulence cause by the setup in water, surface of SEA and OCEAN as it can be used even in varying direction of flow of water.			
2	Local positioning system	The main problem statement was to make a Local Positioning System without using GPS, we used two concepts Wheel odometer and Visual odometer respectively.	Prashant Tiwari BE(Mech)and Priyanka Shewale BE(EnTC)	Sponsored Project from John Deer, Pune	
3	AQUAPONICS	Aquaponics is the combination of Aquaculture and Hydroponics, placing both systems in tandem. This mutualistic operation allows the fish waste to be used as a source of nutrients for the plants. The plants (along with micro-organisms) clean the fish waste water and returned filtered water to the fish tank. Plants grow rapidly with dissolved nutrients both directly from fish and processed by the microbial breakdown of fish waste	Priyabrata Samanthrai		
4	UNDERWATER SUBMARINE	This robot is made up of plastic body having four 45,000 rpm motors. Specially designed boat	Akash Tomar (TE- E&Tc),		

		propellers are used for operating the bot under water. Robot can be controlled with the help of wired remote control . Propulsion or thrust provided by the motors is mainly depends on the design and pitch of propellers . Our main aim is to make this project wireless. In order to achieve this we require a lot of research and expert's guidance and deep knowledge of 3D-experience software.	Ashish Tanwar(TE-Mech)		
5	WALL CLIMBER	This robot is designed for climbing vertical walls. We are going to make this robot with the lightest material which will help in enhancing the performance of the bot. Robot can be controlled with the help of wired/wireless remote control . Our main aim is to successfully climb our robot on walls and modify it as much as possible for other purposes.	Anshaj Upadhyay(SE IT) , Prateek Singh(SE ENTC) , Niraj Singh(SE MECH) , Shivam Tomar(SE MECH)		
6	Use The PINS Wisely Workshop 4.0	A three day workshop on Robot building for FES	127 FEs		
7	IIT Bombay Techfest	<ol style="list-style-type: none"> 1. Techfest is the annual science and technology festival of Indian institute of Technology, Bombay which was started in 1998. 2. A total of eleven team from our college participated in three different events. 3. Seven purely FE teams, 2 SE teams and one TE team participated in Vice Clutch 			

		<p>and Meshmerize .</p> <p>4. In Vice Clutch, the bot has to simply pick up blocks and place them at specified place using manual bots.</p> <p>5. Four teams, including three FE and one SE team successfully completed the given task.</p>			
8	Avishkar-Exhibition of Robots and Projects made by the students/Members of Robotics Club.	Intra college event	200		
9	Project Making by 2 nd year and 3 rd year Students (specially e Yantra kits)	Intra college event	12	NA	
10	ROBOCON 2017	National	40	13 th out of 110	
11	Manual Bot workshop for 1 st year students	Intra college event	60	NA	
12	Cyborg Hustle (Robo race)	Intra college and inter college	60		

13	Pick N Place	Intra college and inter college	40		
14	Navigator	Intra college and inter college	30		
15	Robo Soccer	Intra college and inter college	30		

Roborace event Intracollege Tech Aakriti



Line tracer event Solutions Inter College



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