

Report on  
**“Robocon National Contest 2016”**,  
Venue: Shiv Chhatrapati Sports Complex, Balewadi, Pune dated 3-5 March'16  
Organized by Doordarshan and hosted by MIT Academy of Engineering, Pune

**Submitted**

*by*

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## **About Robocon**

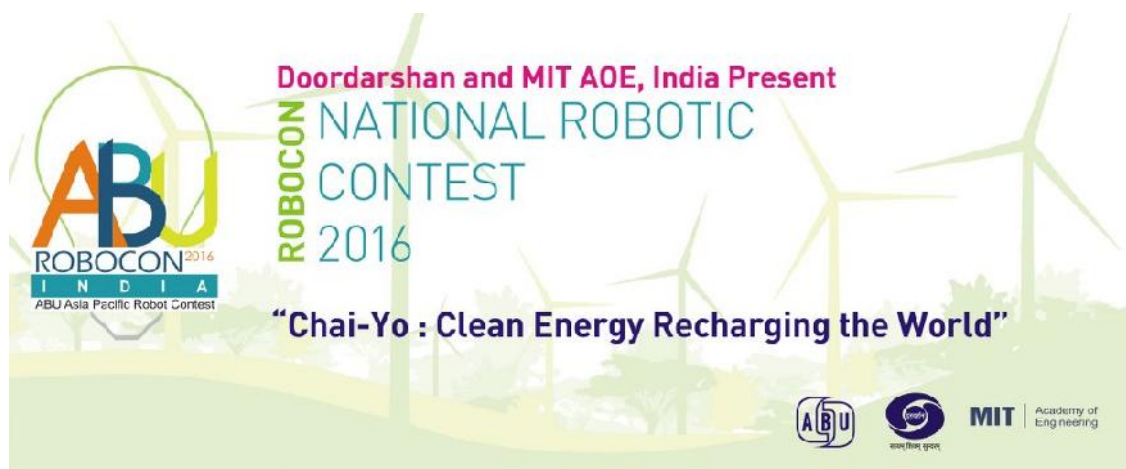
ROBOCON is an Asia-Pacific Robotics Competition organized by Asia Broadcasting Union annually with a sole objective of encouraging and promoting robotics amongst the students at the college level. The contest aims to create friendship among young people with similar interests who will lead their countries in the 21st century, as well as help advance engineering and broadcasting technologies in the region.

The event is broadcast in many countries through ABU member broadcasters. This grand event since 2005 has witnessed participation from almost every country across Asia, and India stands no exception. Sponsored and promoted by National Broadcaster Doordarshan (DD National), the best colleges and university throughout India, face off in national qualifiers so as to represent the country in the International finals held in the host country. Each year the competition has different topics, but generally speaking three or more robots must be used to complete the tasks and theme. To build the robots, contestants, who are restricted to be undergraduate students, must possess rich knowledge in programming, mechanical design and electronic circuit design.

## **This Year Theme: “Chai-Yo : Clean Energy Recharging the World”**

At present, we utilize energies for several purposes in daily lives. The sources of all energies are from nature. Human extract or synthesize these energies from nature. Among all the energies, fossil energy is among the cheapest and easily available. In the past, we misunderstood that fossil energy had unlimited amount and superfluously consumed them. Our energy-consuming habit from the past has affected us a lot this day. The sources of fossil energy are harder to explore. The existing fossil energy will last not too long. In order to solve this problem, we have to efficiently utilize the existing energy and at the same time explore and utilize alternative sustainable energy which should be clean and renewable in order to compensate the energy from fossil.

Based on the reasons above, the game of ABU Robocon 2016 is designed in order to create the awareness of efficient energy consumption and clean and renewable energy utilization. Each team has to build two robots; Eco Robot and Hybrid Robot. Eco Robot doesn't have an actuator to drive. It receives the driving energy from Hybrid Robot. Eco Robot has to use only one steering actuator to control its direction, to track the path containing Slopes and Hills, River, and Down Hill. Besides providing driving energy to Eco Robot, Hybrid Robot has to take Wind Turbine Propeller from Eco Robot and climb up Wind Turbine Pole in order to assemble Wind Turbine.



# G.H. Raisoni College of Engineering, Nagpur at Robocon-2016

## GHRCE Team for ROBOCON-2016 "Theme: Clean Energy Recharging the World", India

No.	Designation	Name	Designation/ Discipline/Year	Email-Id
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**GHRCE Robocon Team with Director and HoD's**

G.H. Raisoni college of Engineering, Nagpur participated for the second time at ABU National Robocon 2016 held at Balewadi, Pune. G.H. Raisoni College of Engineering was the only engineering college from Nagpur region to participate at this competition. A team of 34 was formed which include 33 students and one faculty adviser/Instructor Prof.Ravikumar Tiwari from Electronics department. GHRCE Robocon Team faces tough draw with SRM University, Chennai and Marwadi Foundation's, Rajkot in their group. Team didn't s. Team didn't qualify for the super league for which only 24 team qualifies. It was the second appearance of G.H. Raisoni College of Engineering, Nagpur at Robocon. With every year Robocon is becoming popular and the competition is getting tougher & tougher. GHRCE team was given appreciation certificate and a memento at the hands of Dr.Yogesh Bhalerao, Principal(MITAOE), Chief Convenor, Robocon; for participation at Robocon. The Director of GHRCE Dr.P.R. Bajaj and Head of Department, Electronics Engineering, Dr.S.S. Dorle congratulates team members and Prof.Ravikumar Tiwari for participating at such prestigious robotics competition.

## **Team Performance at Robocon-2016**

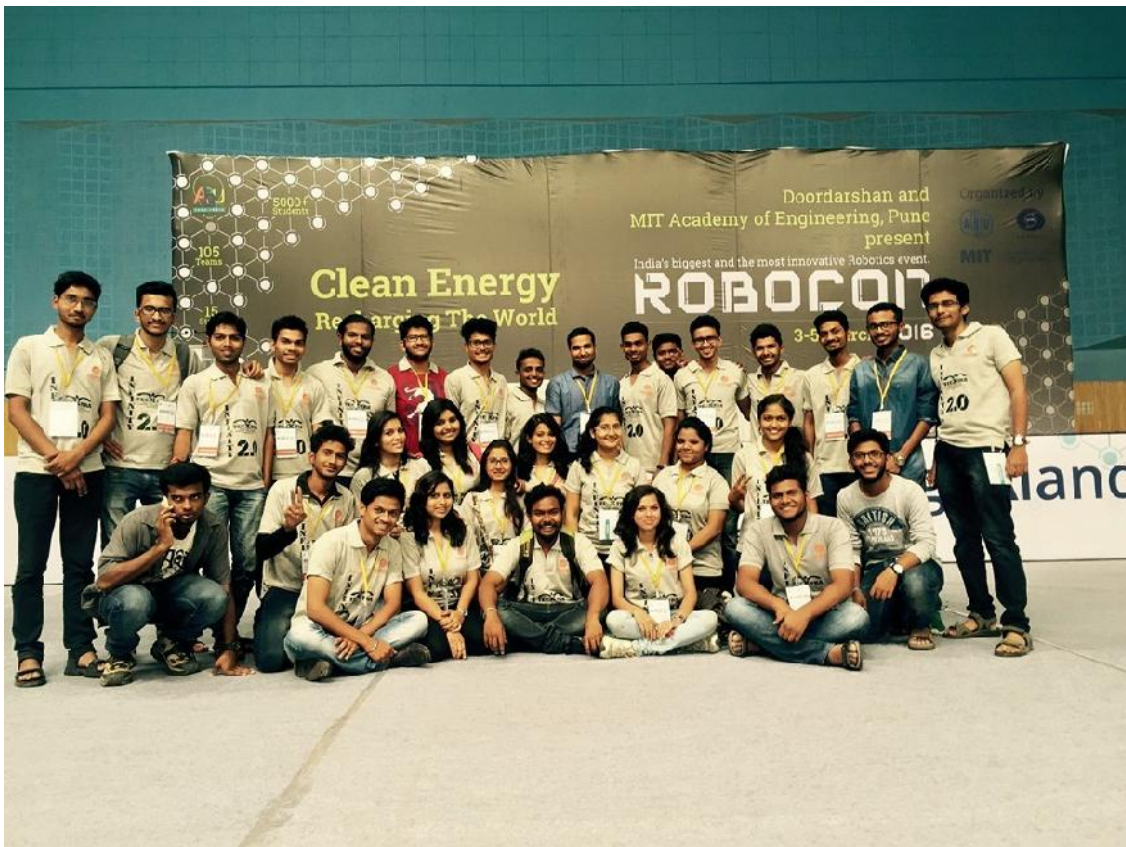
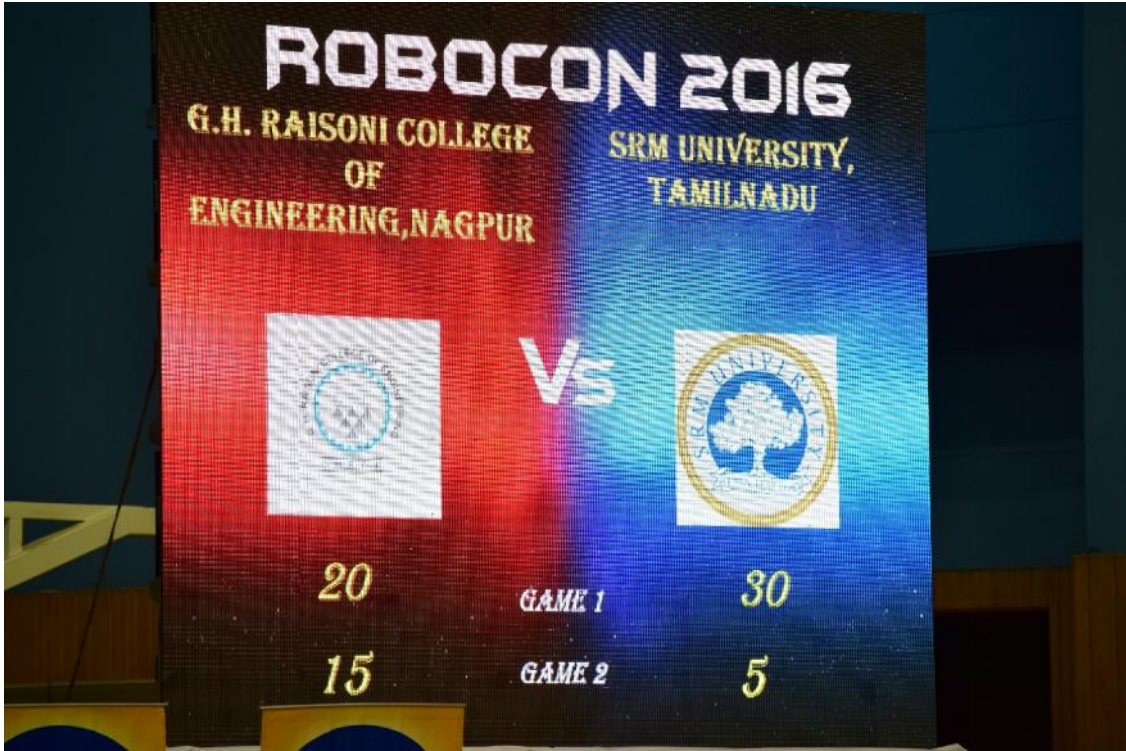
Total 105 team participated at this year Robocon. All teams were divided into 35 group with each group having 3 team. GHRCE were in 'Q' group with SRM University, Tamilnadu and Marwadi Foundation's, Rajkot. In the first match, due to some technical violations we couldn't score any points and given -10 points. In the second match, our team did well to score 35 points. Team overall score was 25 points. We could have done much better, if we have not violated technical restriction in first match. Many of the top team like Nirma University and IIT-Hydrabad too were not able perform, and was below us in points table. This has cheer up our team moral and give us sense of satisfaction. Team has not let down on enthusiasm and has promised themselves that they will come-back next year with more powerful robots.

The final match was played between COEP, Pune and Vadodara College of Engineering, Vadodara. All the spectators were expecting COEP to win as they were achieving Chai-Yo in less than a minute. But at final match COEP couldn't deliver and Vadodara College of Engineering, Vadodara held their nerves to win National Robocon-2016.

# Glimpses







**GHRCE Robocon Team**



**Felicitation by Dr.Yogesh Bhalerao,  
Chief Convenor, Robocon**