

Press Release (eYRC)

**e-Yantra National Finals includes e-Yantra Robotics Competition (eYRC-2017),
March 22/23 2018, VMCC, IIT Bombay**

e-Yantra is a Robotics outreach project that emerged out of the Embedded Systems course at the Department of Computer Science & Engineering at IIT Bombay. It started as an attempt by Prof. Kavi Arya in CSE Dept. at IIT Bombay to teach concepts using "Project Based Learning."

This year's e-Yantra achieves a six-year track record of running a massive (MHRD-funded) National Robotics outreach program. The e-Yantra Robotics Competition (eYRC) presents a real-world problem in the form of a game with a rulebook and scoring criteria. Selected candidates are given all the material to compete along with guidance, supervision and an expense paid visit to IIT Bombay for finals on March 22-23, 2018.

This year, e-Yantra introduced seven exciting themes in agriculture. Automation of various processes in a farm -- from sowing a seedling to harvesting the crops and transporting the produce to the market -- are abstracted into Themes with a rulebook and scoring criteria.

For the past 6 years e-Yantra's National Robotics Competition has been growing exponentially from 4,500 registrations in 2012 to 23,500 registrations (5,932 teams) last year despite falling engineering college seats (30% YoY). The competition teaches hardcore engineering skills through a scalable competition paradigm.

This year's competition featured five finalist teams for each of the seven themes. Whereas every year there are themes for first-time participants, there are also more difficult themes for students who have participated before. For instance, the "**Spotter Snake**" theme in which over a period of three months the teams have to design and build a robotic snake using 3-D printed parts designed and simulated using open-source software. e-Yantra arranges to have the teams 3D print the final versions of the snake which is then made to catch "rodents" in an arena designed by e-Yantra. Similarly this year there is "**Chaser Drone**" a drone-based theme where a drone acts as warden to catch an animal that has strayed into a field by landing a small palm-sized drone on the animal modeled by another robot.

Amongst the finalists in this year's competition was a team from our college, **JSS Academy of Technical Education**, who participated in the **Chaser Drone** theme and came **4th**. This places them amongst the top 0.5% of the contestants in the e-Yantra National Robotics Competition. We are delighted that they have done our college proud.

Each of the finalist teams was felicitated in a glittering e-Yantra Symposium on 24th March 2018 at the Victor Menezes Convention Centre at IIT Bombay. At the Symposium the e-Yantra team presented its model for academia-industry engagement using the 280 labs it has established. This was followed by a panel discussion led by industry leaders such as: Vallabh Bhanshali (Chairman, Enam Securities Pvt. Ltd.), Anil Lingayat (Head, Manufacturing, Godrej & Boyce), Prof. Dinesh Singh (ex-VC, Delhi University), Prof. Ashok Misra (ex-Director IIT Bombay) and Prof. SS Mantha (ex-Chairman, AICTE) on how this potent model may best be used for academia-industry engagement. At the event were also: Meeta Rajivlochan, IAS (Director, RUSA Maharashtra), Dr. Shivprasad Khened (Director, Nehru Science Centre, Mumbai), Romesh Kaul (MD, Mahindra CIE Ltd.), Mahesh Samat (Head, Disney India) amongst a host of other dignitaries.

Almost 40+ IIT Bombay faculty across departments have helped evaluate the finalists of the competition. Says Dr. Krishna Lala, Sr. Project manager e-Yantra, "This just shows that technology is a passion all around for IIT teachers." Prof. Saraswathi Krithivasan (Sr. Project manager, e-Yantra) suggested "the students who have worked hard to reach the finals have the envied privilege of being grilled in depth about their work by IIT faculty."

The goal is the much-coveted prize of a six-week paid summer internship with the e-Yantra team where they get the opportunity to work 24x7 on ambitious technical projects under the guidance of e-Yantra mentors and exposure to a host of training in entrepreneurship, soft skills, theatre workshops, meditation sessions, lectures on history and so on.

e-Yantra is definitely showing the way in building an empowered community of e-Yantra labs to act as hubs for regional innovation.

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