

Report on RoboAnalyzer based Online Competition (ROC)-2020 dated 03.12.2020

RoboAnalyzer-based Online Competition (ROC) 2020 was organized by Tezpur University in collaboration with Indian Institute of Technology, Delhi and Amrita Vishwa Vidyapeetham, Bengaluru Campus. This event focused on providing an opportunity to participants to correlate the concept of classroom robotics knowledge into practice by working in teams and becoming industry ready through Self Driven-Self Learning-Self Evaluating pedagogy. A total number of 42 participants from different institutions and organizations of the country registered for the competition. Participants were from Tezpur University (Assam), Tripura University (Tripura), Symbiosis Skills and Professional University (Pune), Jain University (Bengaluru), IES IPS Academy (Madhya Pradesh), National Institute of Technology-Mizoram, Dibrugarh University (Assam), Shree Cement Limited (Rajasthan), SRM Institute of Science and Technology (Chennai), Jorhat Institute of Science and Technology (Assam), National Institute of Technology-Silchar, Ujjain Engineering College (Madhya Pradesh), NEHU-Shillong and ITI-Bhergaon (Assam).

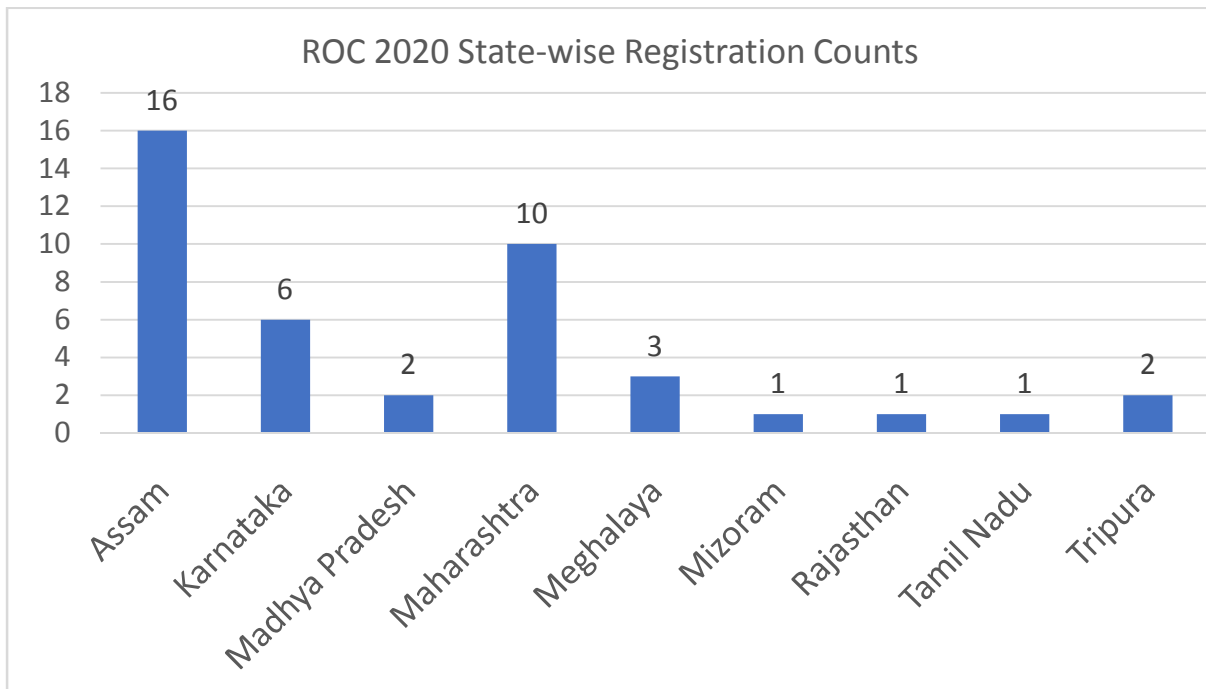


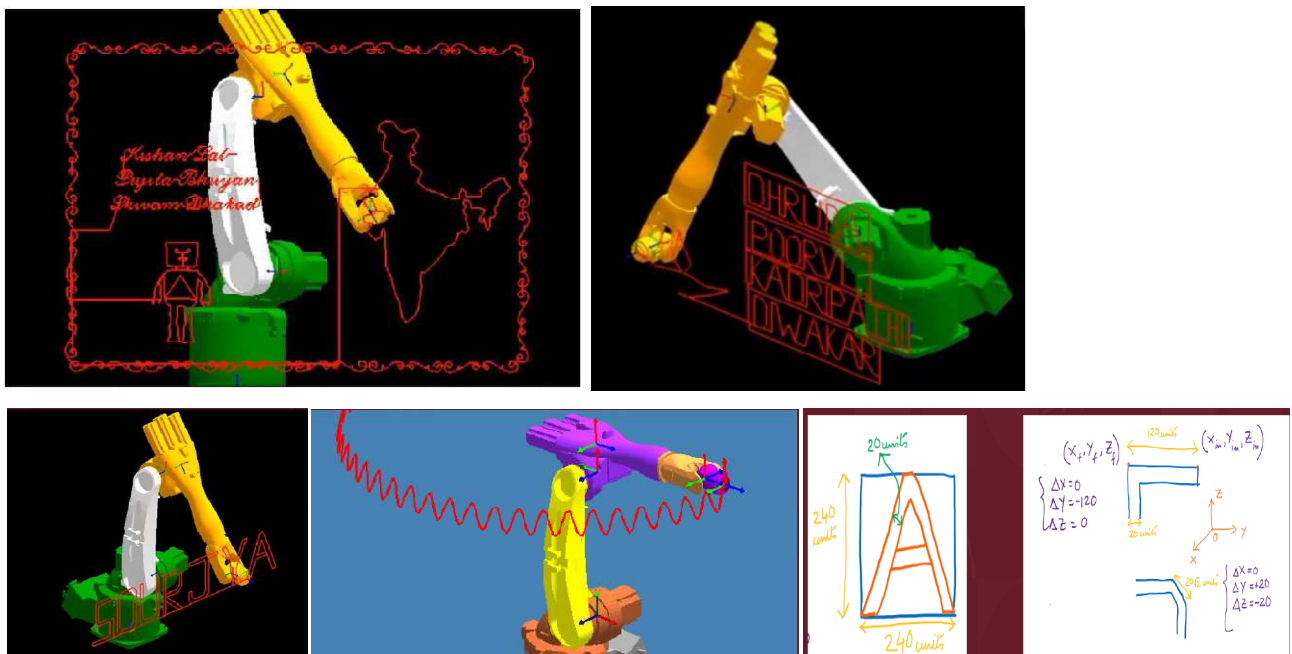
Figure 1: State-wise registration of Participants across the Country

The event started with a pre-webinar session on 11.10.2020. It was an interactive session in which the participants could freely interact with the experts for any queries regarding the competition. There were discussions on the modality of the event.

An online webinar was conducted on 12.10.2020 in Google Meet platform. The experts for the webinar were Professor Subir K. Saha, Mechanical Engineering Department, IIT Delhi, Dr. Nayan M. Kakoty, Electronics and Communications Engineering Department, Tezpur University and Mr. Rajeevlochana C. G., Mechanical Engineering Department, Amrita Vishwa Vidyapeetham, Bengaluru. The webinar started with the inaugural speech by Professor Saha followed by a session on “Introduction to Robotics” by Dr. Kakoty. Mr. Rajeevlochana C. G. conducted a session on learning robotics using RoboAnalyzer software and concluded his session with the problem statement for the competition. An interactive session was also held with participants at the end of the session. The webinar was finally concluded with the vote of thanks.

Following the webinar, two interactive sessions of the participants with experts were held on October 26, 2020 and November 2, 2020. Apart from the interaction with the experts, the teams had interaction among the team members on the problem statement to be solved which were scheduled by themselves. Six teams out of ten submitted the solution to the problem statement on November 16, 2020. The evaluation of the submitted assignments was done in two stages. In the first stage, each team was evaluated by another three teams on November 22, 2020. In the second stage, each team was evaluated by the expert panel based on their presented work and interaction on the Final day, November 30, 2020.

The work carried out by the participants varied from writing their names as the trace of the end-effector of a virtual robot in RoboAnalyzer to writing complex shapes such as a lamp (diya), India map, cursive writing, etc. Some of these exceptional work are shown in the below.



Although initially, it was decided to award one team only; looking at the performance in the competition, the expert panel and organizers decided to award two teams. The award to the First team was the text book “Introduction to Robotics by S. K. Saha” and to the second team was the book entitled “RoCK-BEE by Manish Chauhan and S. K.Saha”.

The feedback given by the participants was positive and the concept of “Self Driven-Self Learning-Self Evaluating” was appreciated by all. It helped the participants to achieve better results, as told by them.

In summary, ROC event was participated by a few enthusiastic participants and in the coming months and years, we would like to organize many more such events.

Organizing Team

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