



ERTS Lab
Department of Computer Science and Engineering
Indian Institute of Technology Bombay,
Powai, Mumbai-400 076.

eYantra

Engineering a better tomorrow



Certificate of Merit

This is to certify that **Mohammad Firoz Khan**, a student of **Gayatri Vidya Parishad College of Engineering (Autonomous), Andhra Pradesh** has participated in the Grand Finale of **e-Yantra Robotics Competition (eYRC 2021-22)** held on April 2nd, 2022.

He/She is a member of the team having the following team members:

1. Prudhvi Srinivas Akula
2. Sivaji Meenugu
3. Mohammad Firoz Khan
4. Vijaya Rama Krishna Chavakula

This team has been selected as one of **4 finalists** out of **235 teams** in the **Functional Weeder** theme and has been placed at **3rd (Consolation Prize) position** in this theme.

Prof. Kavi Arya
Principal Investigator, e-Yantra
Professor
Department of Computer Science and Engineering
Indian Institute of Technology Bombay



60cd97e6d4a6ec000027e53dd6a6973a4308b4bf

Theme: *Functional Weeder*

Theme Description: This theme is in response to an agricultural scenario featuring labor-intensive work. Multiple autonomous robots explore an arena and communicate with one another to perform tasks simultaneously. The robots are programmed using Elixir language with a dashboard logging the sequence of events and remaining tasks in real-time over the Internet. The arena abstracts a farm, comprising crop seeds to be planted and weeds to be removed. Robots work collaboratively and communicate with each other to explore the farm to determine where seeds should be sown and/or weeds should be removed.

Theme Learning: *Functional Programming, Elixir language, Phoenix Web Framework, IoT, Socket programming*

Team Learning: The team has been awarded **Level 1** in the e-Yantra Robotics Competition (eYRC).

This level indicates that the team was able to show high competence in the competition and reached the ultimate goal of solving the whole implementation and reached the finals (top 5-8 teams) after 7 months of hard work.

Certificate Table

Certificate Level	Certificate Description
Level 1	Certificate of Merit
Level 2	Certificate of Completion
Level 3	Certificate of Participation
Level 4	Letter of Participation

**level 1 > level 2 > level 3 > level 4*