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IIT Bombay

## Letter of Participation

This is to certify that **Tanga Surya Naga Rohit**, a student of **Indian Institute of Information Technology, Kottayam, Kerala** has participated in the **e-Yantra Robotics Competition (eYRC 2022-23)**.

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

1. Tanga Surya Naga Rohit
2. Mukku Krishna Babu
3. M Jaswanth Kumar
4. Indela Venkata Chaithanya Reddy

This team has participated in **Pharma Bot** theme.

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



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**e-Yantra is a project sponsored by MHRD, Government of India, under the National Mission on Education through ICT (NMEICT).**

**Certificate of Merit:** awarded to finalist teams.

**Certificate of Completion:** awarded to teams for completing all the tasks of the competition.

**Certificate of Participation:** awarded to teams for partial completion of tasks in the competition.

**Letter of Participation:** awarded as an acknowledgement of participation on e-Yantra Letterhead.

## Theme: *Pharma Bot*

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### Theme Description:

Tackling challenges in mobility is of the utmost importance for a city to become "Smart". Many industries began using home delivery through the years as a way to enhance their services. However, this technique necessitates the use of labour as well as a vehicle, which increases fuel consumption. What if we sent robots to your door to bring medicines?

In the "Pharma Bot" theme, we attempt to address this issue by building autonomous delivery robots that "pick up" medicine packets from pharmacies and distribute them across our "Smart city" arena.

**Theme Learning:** *Image Processing, Line following using Image Processing, Algorithm Building, Robotic Navigation and Localization, Robotic Simulation, Python and Lua programming.*

**Team Learning:** The team has been awarded **Level 4** in the e-Yantra Robotics Competition (eYRC).

*This level indicates that the team was able to complete initial tasks (mostly Task 0, Task 1 and Task 2 out of the total 6 tasks)*

**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*