**Rules Document for the ARTPARK-Pravega Robotics Challenge**

1. **Event Overview:**

- The ARTPARK-Pravega Robotics Challenge comprises two rounds: Preliminary and Final.

- Teams can consist of up to 4 members.

- The challenge is open to all robotics enthusiasts and innovators.

2. **Timeline:**

- Event registration and prelims response submission will be open until November 10th, 2023.

- Teams must submit their code stack and a simulation video through the provided Google form by the deadline.

- Preliminary results will be announced on December 15th, 2023.

- The finals will take place offline at the IISc campus during Pravega.

3. **Eligibility:**

- The challenge is open to all individuals and teams with a maximum of 4 members per team.

- Each team must have a designated Team Leader who will serve as the point of contact for the event.

4. **Prizes:**

- The event features a prize pool of up to 1.5 lakh rupees.

- Finalist teams will receive a travel and accommodation grant.

5. **Registration Process:**

- Teams must fill out the registration form on the event website.

- After registration, teams will receive an email with the submission form.

6. **Preliminary Round:**

- Teams are required to submit a comprehensive response to the assignment, including a code stack and a video demonstration.

- Evaluation criteria for the Preliminary Round include the reliability of the code and its adaptability to dynamic environmental changes.

- A maximum of four teams will be selected to advance to the Finals.

7. **Final Round:**

- The Finals will be conducted offline at the IISc campus during Pravega.

- The problem statement for the Finals involves developing a ROS-compliant AMR fleet management algorithm capable of navigating environments with dynamic obstacles (e.g., humans) and narrow corners.

- The Finals span two days:

- Day One: Teams will have time to work on robots, perform testing, and set up hardware.

- Day Two: Teams will demonstrate their solutions with two attempts, each lasting 30 minutes.

- Teams will be assessed on their system's ability to detect the environment and navigate efficiently, with a focus on speed and accuracy.

8. **Stay Informed:**

- Stay tuned for further updates, details, and announcements related to the event on the Pravega website

- For any further queries, mail us at scitech.pravega@iisc.ac.in.

We look forward to your participation in the ARTPARK-Pravega Robotics Challenge and witnessing your innovative solutions in action!

9. **Preliminary Round:**

- Teams are required to submit a response to an assignment, including a code stack and a video demonstration.

- Evaluation for Preliminary Round selection is based on the reliability of the code and its ability to adapt to dynamic environmental changes.

- A total of four teams will be selected to advance to the Finals.

10. **Final Round:**

- The Finals will be conducted offline at the IISc campus during Pravega.

- The final problem statement, mentioned above is centred around developing a system capable of detecting the environment and finding the optimal traversal path in the shortest time.

- The Finals span two days:

- Day One: Teams will work on robots, perform testing, and set up hardware.

- Day Two: Teams will demonstrate their solutions with two attempts, each lasting 30 minutes.

11. **Selection Criteria for Winners:**

- In the Finals, teams will be assessed based on the system's ability to detect the environment and efficiently navigate, with a focus on speed and accuracy.