ARTPARK concludes Robotics Challenge, more than 134 teams across India participated in the competition to showcase innovations in the field of robotics

- The challenge saw stimulating demonstrations by teams, where they performed janitorial tasks in a washroom, showcasingtheir innovative indigenously designed robots
- The challenge is part of ARTPARK's mission to support, nurture and co-create a robotics ecosystem to make India the global leader in robotics platforms and technologies

Bangalore, May 16th, 2022: Bangalore-based not-for-profit foundation, AI & Robotics Technology Park (ARTPARK), concluded the Robotics Challenge on Saturday at JN Tata Auditorium, IISc campus, Bangalore. The challenge required robots to demonstrate janitorial tasks that would be typically performed in a washroom. Out of the 134 applications received from across the country, the top four teams Cerberus, Gryffindors, Giga Robotics, and RoboJyothians made it to the finals, where they demonstrated janitorial tasks in a washroom using innovative robots. Gryffindor was declared the winner of this competition, while Cerberus team and Giga roboticsteam shared the runner-up spot.

The finale witnessed the presence of leading industry leaders like Vishal Dhupar (MD Asia South, Nvidia), Sandeep Dixit (Head New Technology, Adani Power), Pranav Saxena (Chief Technology & Product Officer, Flipkart Healthtech), Prof Pradipta Biswas (Centre for Product Design & Manufacturing, IISc), UmakantSoni (Co-founder & CEO, ARTPARK) and Prof BharadwajAmrutur (Research Head & Director, ARTPARK).

UmakantSoni, Co-founder & CEO, ARTPARK, said, "Service Robotics Market is expected to Garner \$153.7 Bn, Globally, by 2030 at 21.2% CAGR as per Allied Market Research. In fact, developing AI and robotics skills will be crucial to thriving in the future job industry. The ARTPARK Robotics Challenge is in sync with this vision, giving learners an opportunity to nurture their skills in this space and create technology solutions for real-world problems that exist in India. We are extremely delighted with the response this event has garnered, and we will be building upon this response to build a strong AI & Robotics community to help build and expand the robotics ecosystem in India."

Prof BharadwajAmrutur, Research Head & Director, ARTPARK, said, "India deployed <u>3200 robots</u>, one of the highest numbers of robot installations in 2020. This next-gen robot technology has already proved as a game-changing asset for various industries, and the need to invest in this tool will only increase in the years to come, given the kind of innovation it brings to the table. Such robots will only augment the capability and productivity of our workforce, making India a global leader in various industry verticals like manufacturing, logistics, agriculture, etc. At ARTPARK, we aim to boost such

innovations through skilling and capacity building via our stimulating competitions and give youth a platform to learn, showcase and nurture their AI and tech-related skills, for it will enable them to thrive in the future job industry and also bring transformation across the value chain. What is different about how ARTPARK has conducted this competition is that it has mentored and materially supported the finalists over a one-year period to scale the difficult problem statement of the competition"

The service industry is constantly struggling with rising labor costs, a lack of true performance standards, and a churning workforce. In spite of all this, hardworking service providers are fighting to measure and prove their differentiated offerings in the market on a daily basis. Tackling these challenges can be accomplished by automating routine and hazardous physical tasks and improving the lives of employees, via automated technology such as service robots.

In this challenge, the tasks were limited to clearing any rubbish that may be on the floor followed by cleaning the washbasin and the washbasin counter using a sanitizing liquid. The main technical challenges included (autonomously) creating an accurate map of the washroom and the surroundings by using appropriate sensors, designing a robotic platform and a manipulator to perform the navigation, pickup, mopping tasks, and devising perception algorithms for accurately recognizing, estimating the locations and orientations of the various objects in the washroom. The robots were given a brief opportunity to scout out the washroom area ahead of time so that they can assess the environment and create a representation of it for planning and navigation purposes.

ARTPARK focuses on problems relevant to India and the developing world and strives to address them with innovative solutions. To achieve this goal, it keeps generating newer learning opportunities for the Indian youth, through which they can nurture, build and showcase their skills to the entire world, and become future-ready to tackle real-world problems with technology innovations. The ARTPARK Robotics Challenge was part of the same long-term vision.

About ARTPARK

Al & Robotics Technology Park (ARTPARK) is a one-of-its-kind, not-for-profit foundation established by the Indian Institute of Science (IISc), Bengaluru with support from the Al Foundry in a public-private collaborative model, to promote technology innovations in Al (Artificial Intelligence) & Robotics. With seed funding of INR 170 Cr (\$22Mn) from the Department of Science & Technology (DST), Govt. of India, under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), the ecosystem is designed to bring about a collaborative consortium of partners from industry, academia, and government bodies. These innovations will be channelized to create a societal impact by creating products and solutions in healthcare, education, mobility, infrastructure, agriculture, retail, and cybersecurity, via translational R&D leading to launch of startups. ARTPARK has received a further INR 60 Cr grant from Govt. of Karnataka to create cutting-edge innovations in terms of new technologies, standards, products, services, and intellectual properties out of India.