

## **Robotics Competition for Startups and Students held at National Conference on Robotics, CMTi**

The Ministry of Heavy Industries (MHI) in partnership with Indian Institute of Science (IISc), Bengaluru and Central Manufacturing Technology Institute (CMTI), hosted a 'National Conference on Robotics' at CMTI, Bengaluru from 3rd to 4th July 2023. The event focussed on the need for India's journey to become a global leader in robotics & autonomous systems for manufacturing through keynote sessions, panel discussions, competition and an exhibition. The conference was presided over by Dr. Mahendra Nath Pandey, Hon'ble Minister for Heavy Industries and attended by the industry leaders, Industry associations, heads/CEOs of prominent companies, Startups and Academia.

The Robotics Competition was open to student groups and startups aiming to showcase their independently developed Robotics and Autonomous systems. Participants were required to submit a 3-minute video demonstrating their robotic solutions for initial evaluation. After carefully assessing 50 entries, the jury selected 17 teams to proceed to the next stage, where they were requested to present either a physical demonstration or a working video of their solution.

Our team presented an affordable pipeline inspection robot designed specifically for visual inspection purposes. Our solution revolved around the mechanical design of the robot, enabling it to expand or contract according to the varying diameters of pipeline openings. This approach eliminated the need for pipelines to adhere to specific specifications in order to be inspected using our robot.

Among the 17 teams, the jury recognized the top 7, consisting of 5 student groups and 2 startups. Our student research group achieved the 4th position and was honored with a memento and a cash prize of INR 10K.

Participating in this competition proved to be highly advantageous for our team as it provided valuable insights into the caliber of competition and the innovative approaches being implemented by other research groups nationwide.