

Robosub - 2022 Team AUV-IIT Bombay

Community and Outreach

Industrial Collaborations

- We are collaborating with Drona Aviation, an IIT Bombay startup, to develop a micro-ROV as a do-it-yourself kit for educational purposes for school children.
- We have collaborated with Larsen and Toubro Limited and the Government of India to develop a class-1 ROV to be deployed in the seawater for ship hull inspection. The designs have been completed by us and this project is currently in the fabrication and testing phase.
- We have collaborated with CoE-OGE (Centre of Excellence in Oil, Gas and Energy) for a project on developing an IoT solution for underwater pipeline inspection

Conferences and Publications

- Our research paper on “Modelling of Underwater Acoustic Networks for Source Localisation in Arbitrary Bounded Reservoirs” was presented at the EFTF-IFCS Conference 2021. It was published in the IEEE Xplore Journal: <https://ieeexplore.ieee.org/document/9604320>
- We presented a paper "Design of Battery Management System for an Autonomous Underwater Vehicle" at OCEANS 2022 conference held in Chennai, India in a hybrid format.

Events and Outreach Activities

- The team participated in the engineer's conclave event held at IIT Roorkee on “Acoustic based Underwater Localization”
- We annually showcase our vehicle in Techfest, IIT Bombay - Asia's largest technical college festival to educate the masses about the intricacies of the underwater domain.
- We yearly participate in IITB Research Park, an institute-conducted event to create a collaborative environment between academia and industry through joint research and consulting efforts.
- We conduct campus-wide events to educate the students about AUVs and our vehicle series Matsya.
- The team also mentors quite a few other teams from India, who are keen on making

- AUVs, like IEM Kolkata, KJ Somaiya College of Engineering, Mumbai, Sahyadri College, NIT Rourkela, IIT Kanpur and VIT Pune.
- The team arranged lab visits for different government bodies including the INS Shivaji team.