## **OUTREACH ACTIVITIES**

Barunastra ITS is one of the ITS robot teams that focuses on developing maritime technology at Institut Teknologi Sepuluh Nopember, Indonesia. In accordance with its slogan, Barunastra ITS team will be active in developing unmanned ships to encourage progress in world maritime technology. Not only active in developing its research, the Barunastra ITS Team is also active in sharing its research in national and even international forums. Recently, the Barunastra ITS team has often been invited to several international level forums.



Barunastra ITS at NEVA Exhibition Russia 2023

In September 2023, we were invited to represent Indonesia from 23 countries around the world at the Autonomous Technology at NEVA Exhibition Russia 2023 held by HEBA. At this time, We were given the opportunity to introduce and share the results of their research with other speakers from 23 countries in the world. Not only did they share the results of their research, but we also gained new insights regarding advances in autonomous technology in other countries. We also had the opportunity to discuss directly with representatives of other countries regarding the development of autonomous technology in the future.



Barunastra ITS at ITS Global Kampoeng Exhibition Indonesia 2023

In November 2023, the Barunastra ITS team was invited by "ITS Global Kampoeng" to introduce its team at their annual event at the international forum. At this event, the Barunastra ITS team was asked to provide their views on the progress of world maritime technology to lecturers from several countries, including Russia, Malaysia, Philippines and India. Not only provide their views, We also held sharing sessions and question and answer sessions with lecturers from these four countries.



ITS Barunastra collaboration drone with Robo Marine Indonesia

Not only as a speaker, Barunastra ITS team is also collaborating with Robo Marine Indonesia (RMI) to build one of its newest ship drones. In this project, We collaborated with RMI to create an Autonomous Modular Unmanned Surface Vehicle (USV) Hydro Oceanography. This USV was built for an underwater mapping mission in Indonesia to support the smooth running of maritime activities in Indonesia. The construction of this ship drone is currently underway with 80% progress and will continue with other new projects.

It will not stop here, Barunastra ITS Team will continue to develop its research to contribute to the development of Unmanned Surface Vehicles (USV) in Indonesia and introduce it to the world. One of our commitments is to always take part in robot boat competitions at international level, one of which is the International Roboboat Competition 2024 so that we can continue to gain new insights and provide our best to foster maritime technology.