34th Central European Conference on Information and Intelligent Systems

PROJECT SECTION
PITCHES

CECIIS

PROJECT NAME:

MASK - Marine Robots for better Sea Knowledge awareness

INSTITUTION:

University of Zagreb Faculty of Electrical Engineering and Computing

PRESENTER:

doc. dr. sc. Tomislav Jagušt

20 - 22 September, 2023 / organized by Faculty of Organization and Informatics / Dubrovnik, Croatia

MASK - Marine Robots for better Sea Knowledge awareness

Erasmus+ KA2

Start - End: **01/Nov/2022 - 31/Oct/2024**

Leading institution: **University of Zagreb, Faculty of Electrical Engineering and Computing**

5 Partner Institutions (3 universities and 2 schools) from Croatia and Germany

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Main goal:

To promote **interest** and excellence **in STEM** through a series of **learning and teaching activities**, both theoretical and practical, **related to marine robotics and artificial intelligence (AI)** and **environmental protection** and monitoring.

Motivation:
- Awareness of the environmental (sea and other water surfaces) protection
- AI and robotics are excellent means of explaining environmental protection

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5 activities:
- Learning marine robotics and Artificial Intelligence (AI)
- Training the trainers
- Remote testing of marine robots
- Robotics educational activities at sea
- Dissemination at major event

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1) Learning marine robotics and Artificial Intelligence (AI)

- Fully virtual
- Universities gave classes to the students explaining marine robotics and their applications to environmental issues
- First year of the project was focused on basics of marine robotics

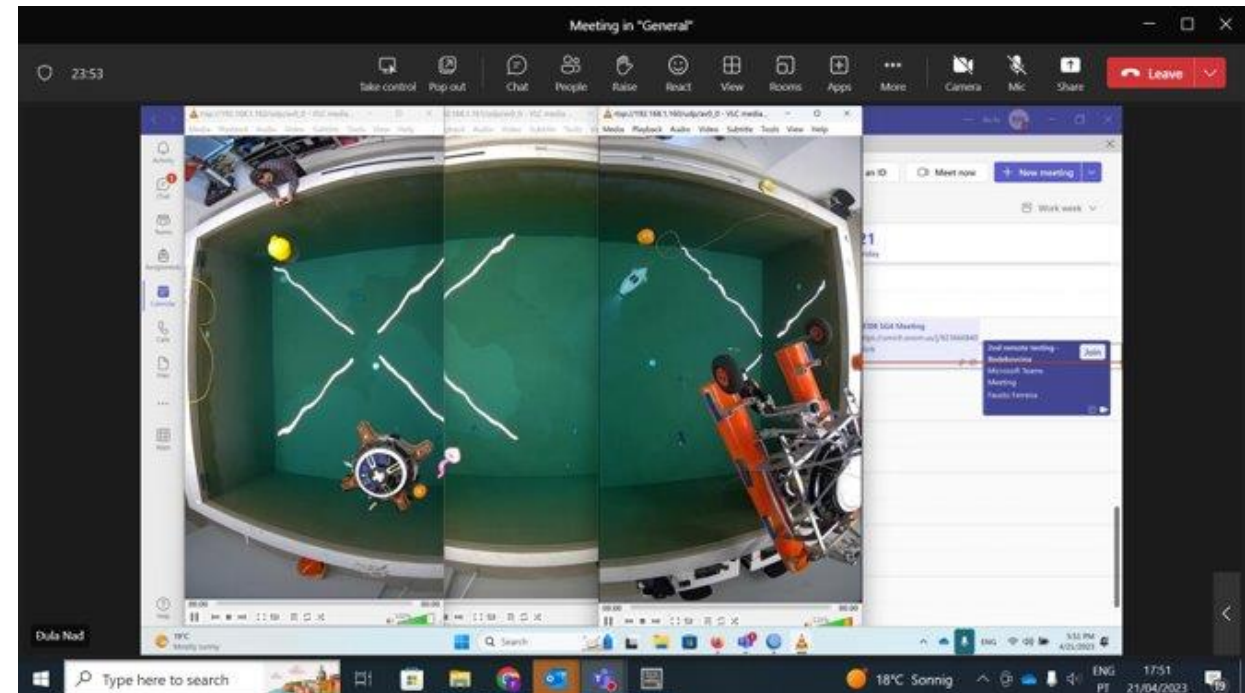**MASK - Marine Robots for better Sea Knowledge awareness**

2) Train the trainers

- Virtual
- Goal: train the high school teachers so that they can give this course in the future without the universities

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3) Remote testing

- Taking advantage of universities' infrastructure ready for remote access, students could control real robots from their classroom

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4) Robotics educational activities at sea
- Baška (Krk island) - during the GNSS conference
- 7 different robots with different capabilities and shapes
- Testing in the pool and in the sea

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Future work:

- Collect images of garbage and training AI to detect them
- Next year we will be detecting garbage and picking it up with a grabber