

This project is co-funded by the European Union
and the Republic of Türkiye



MSCA SE 2026 Call



PRESENTER FULL NAME: Dr Yogang Singh – Senior Lecturer Robotics

ORGANIZATION: Sheffield Hallam University, United Kingdom

WORKSHOP NAME: International Brokerage Event on Horizon Europe MSCA
Staff Exchanges

E-MAIL: y.singh@shu.ac.uk





MSCA SE 2026 Call



Description of the Organisation

**Sheffield
Hallam
University**

Sheffield Hallam University (SHU) is one of the **UK's largest and leading applied universities.**

Applied research, industry partnerships, and a strong civic mission

SHU **contributes over £400 million annually**

More than **30,000 students and over 2,000 academic staff**

Impactful Interdisciplinary research Across Engineering, Computing and Social Sciences

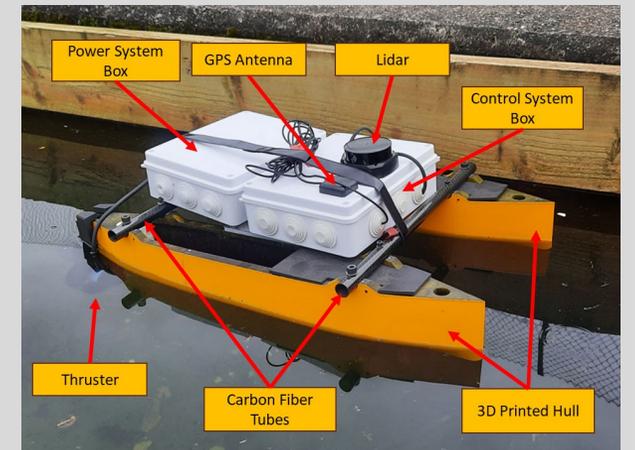
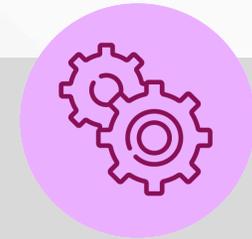


MSCA SE 2026 Call

- **Robotics & Autonomous Systems**
Design development, and deployment of marine robots for real-world environments.
- **Artificial Intelligence & Data Analytics**
Applied AI for sensor fusion, navigation, environmental modelling, and decision support systems
- **Environmental Monitoring Technologies**
Development of robotic sensing platforms to measure water quality, pollutants, and environmental indicators



Interdisciplinary Applied
Research
with
School of Computing and
Industrial Partners





MSCA SE 2026 Call



Your Research Fields

Applied Computing and Embedded Systems



Autonomous Robotic Systems



Artificial Intelligence and Machine Learning



Sustainability & Environmental monitoring

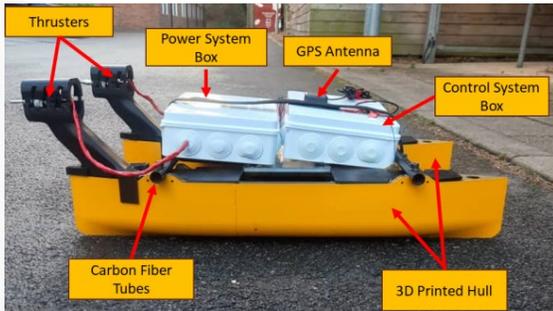
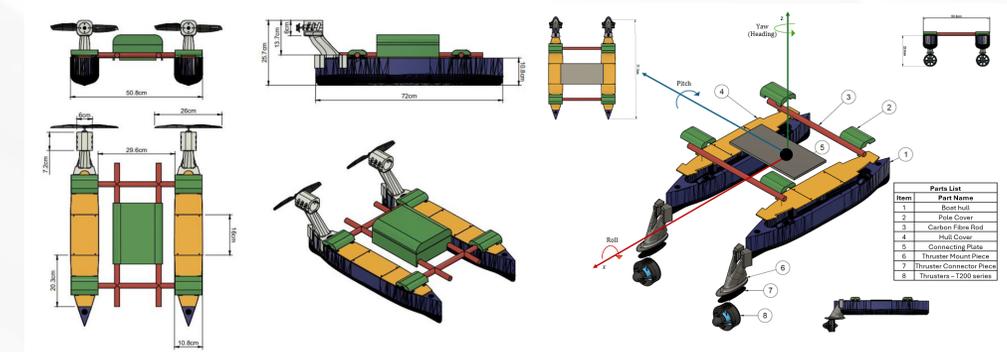


MSCA SE 2026 Call

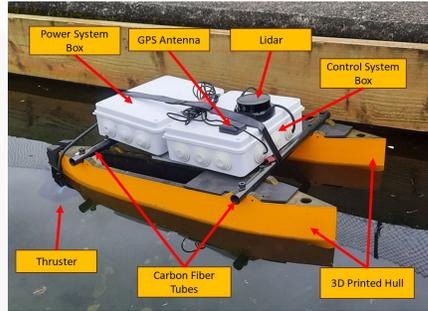


On-Going Projects

Low Cost Agile Autonomous Marine Robot for Environmental Monitoring: Deployment and Trial



Version 1- Aerial Thrusters



Version 2-Underwater Thrusters



Water Monitoring USV

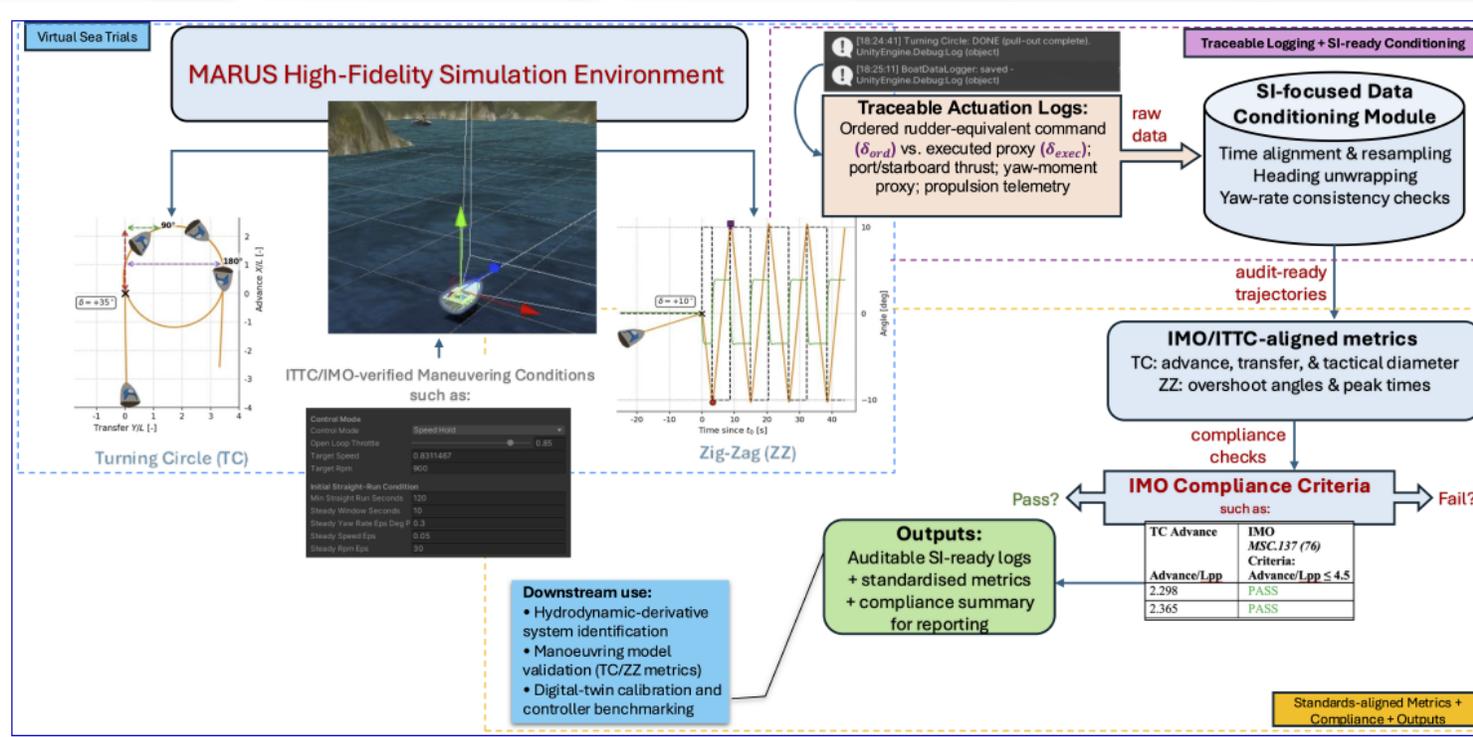


MSCA SE 2026 Call



On-going Projects

Digital Twin Design for Navigation of Autonomous Marine Vehicles Using Virtual Sea Trials





MSCA SE 2026 Call



Project Idea

Project Idea: AMBIENT-SEA: Autonomous Marine-Based Intelligence for Environmental Tracking & Staff Exchange

Deadline Dates: Next MSCA Staff Exchanges call (expected late 2025 / early 2026; updated based on programme timelines)

❑ Objectives:

- Develop modular autonomous marine robotic platforms.
- Integrate multi-sensor payloads for water-quality and pollutant detection.
- Build AI-based environmental models for real-time analysis.
- Enable meaningful staff mobility and skill exchange between partners.
- Strengthen international research collaboration in robotics and environmental science

❑ **Expected Results:** Prototype autonomous marine vehicle with validated sensing systems; Joint datasets collected from international field trials; Co-authored publications in robotics & environmental science; Long-term partnerships between universities, SMEs, and environmental agencies; New training pathways for early-stage researchers.



MSCA SE 2026 Call

Consortium - profile of known partners (if any)

No	Partner Name	Type	Country	Role in the Project
01	Sheffield Hallam University	University	UK	Lead Coordinator, Robotics and AI development, Project Leadership
02	Aqua Sensors	SME	UK	Industrial Partner
03	University of Genoa	University	Italy	Co-Lead ;Experimental & Testing Support
04	Somerset Wildlife Trust	Public Body and Agency	UK	Community Partners
05				



MSCA SE 2026 Call

Consortium – Required Partners

No	Expertise	Type	Country	Role in the project
01	Industry Partner in Robotics	SME	EU or International	Prototyping, Manufacturing and Exploitation
02	Environmental Sensing / Water analysis	University /Research Institute	EU or International	Environmental Modelling, Algorithm Support
03	Marine robotics & field testing	University /Research Institute	EU or International	Joint Deployment and Testing



MSCA SE 2026 Call

**PRESENTER CONTACT
DETAILS:**

Dr Yogang Singh; SHU

Email: y.singh@shu.ac.uk

COUNTRY: United Kingdom