

MARINE AUTONOMOUS SYSTEMS ENGINEER (Robotics, Control & Testing)

Reference : CH_JOB_26_04_AUTO
Publication Date: 2026-06-08
Contract : Full-time, On-site
Location : Valencia, Spain
Start Date : Q3 2026
Experience Level: 4+ years
Education : MSc or PhD
Apply to : jobs@caponnetto-hueber.com

ABOUT CAPONNETTO HUEBER

Caponnetto Hueber (CH) is a leading engineering and innovation firm specializing in high-performance hydrodynamics, foiling technologies, and smart maritime systems. Acting as both a scientific laboratory and an engineering consultancy, CH delivers advanced engineering services and performance-driven design solutions for yachts, ships, and autonomous vehicles, from concept development to prototype validation.

Based in the Marina of Valencia, Spain, CH combines a rigorous scientific approach with state-of-the-art CFD, optimization, and simulation tools. The company supports clients across the nautical and maritime sectors with advanced expertise in naval architecture, propulsion systems, energy efficiency, fluid dynamics and performance prediction, with a strong focus on innovation, performance, efficiency, and sustainability.

CH has participated in the last six consecutive America's Cup campaigns, contributing to victories in 2010 and 2013, and collaborates with top-tier shipyards, design offices, and marine innovators worldwide. Its work spans from high-performance foiling yachts to wind-assisted ships, and from racing sailing yachts to autonomous marine vehicles, shaping the future of marine design through innovation and applied research.

Main Services:

- Hydrodynamics and Computational Fluid Dynamics (CFD)
- Naval architecture, including hull, appendage, and hydrofoil design
- Naval engineering, prototyping and testing
- Propulsion, energy-saving devices and energy-harvesting systems design and optimization
- Simulation and Performance Predictions for sailing yachts, wind assisted ships, motor yachts and autonomous marine vehicles.

Main R&D activities:

- High-efficiency hydrodynamic concepts for yachts, ships, and USVs (including hydrofoils)
- Wind Propulsion Technologies: performance and emissions prediction methods and tools
- AI-assisted design, simulation and performance prediction tools
- Smart and autonomous vessel systems

Caponnetto Hueber is expanding and looking to integrate motivated, committed professionals eager to work in a competitive, high-tech, and impactful international environment.

CAPONNETTO HUEBER

THE ROLE

Description:

We are looking for a **Marine Autonomous Systems Engineer** to join our technical team in Valencia and contribute to the development, integration, testing, and validation of advanced automation, control, and electronic systems for next-generation autonomous and smart vessels.

The role sits at the intersection of robotics, control systems, embedded electronics, onboard software, and practical marine testing. You will work closely with naval architects, mechanical engineers, CFD specialists, R&D engineers, and external experts to transform advanced concepts into reliable, real-world autonomous marine systems.

This is an on-site role in Valencia. The successful candidate will play an important role in the day-to-day coordination of robotics and smart systems activities, supporting the development of flight control systems, autonomous functions, onboard electronics, simulators, test benches, hardware-in-the-loop setups, and on-water validation.

Depending on experience, the position may progressively evolve toward increased technical responsibility and coordination within the robotics, autonomy, and smart systems activities.

Key Responsibilities:

- Design, develop, and integrate control architectures, onboard electronics, sensors, actuators, embedded computers, and communication systems for autonomous and semi-autonomous marine vehicles
- Coordinate robotics, FCS, autonomy, and smart systems development from the Valencia office, in close collaboration with internal teams and external experts
- Set up and operate electronics/control benches, simulation environments, and hardware-in-the-loop testing capabilities
- Support the development of mission control, remote operation, and monitoring tools for autonomous marine vehicles
- Collaborate with naval architecture, mechanical, CFD, simulation, and R&D teams to ensure robust system integration
- Support prototype integration, debugging, commissioning, sea-trial preparation, and on-water testing
- Analyze test data and refine control, navigation, automation, and decision-making algorithms, including AI/ML or adaptive control methods where relevant

CANDIDATE PROFILE

Background:

- **Mechatronics, Robotics, Control Systems, Electronics, Automation, Naval, Aeronautical, or Systems Engineer**, holding an MSc or PhD Mechatronics Engineering, Robotics, Control Systems, Electronics Engineering, Naval Engineering, Aeronautical Engineering, or a closely related field.

Experience:

- **Minimum 4 years of professional experience in automation, robotics, control systems, or autonomous vehicles**
- Experience with the development, integration, and validation of control and electronic systems
- Exposure to marine, aerospace, automotive, robotics, or autonomous systems environments

CAPONNETTO HUEBER

Technical Requirements:

- Strong background in control theory, automation, and system integration
- Experience with navigation systems, sensor fusion, and feedback control algorithms
- Knowledge of embedded systems, signal processing, and real-time systems
- Familiarity with communication protocols commonly used in marine and embedded environments
- Ability to work across software, electronics, control, mechanical integration, and testing
- Practical ability to diagnose problems, test systems, and improve technical solutions during integration and validation phases

Additional Valuable Skills:

- Experience with marine applications such as autopilots, dynamic positioning, flight control systems, or remote-control systems
- Experience with hardware-in-the-loop testing, simulators, electronics benches, or control system validation environments
- Knowledge of AI/ML techniques applied to control, prediction, or autonomous behavior optimization
- Experience with reinforcement learning or adaptive control methods
- Familiarity with onboard computing platforms and real-time operating systems
- Hands-on experience with prototyping, systems integration, and field or sea-trials testing
- Strong interest in smart vessels, autonomy, and advanced marine technologies
- Interest and hands-on experience in model engineering and remote-controlled systems
- Certified drone pilot experience is considered a plus

Other Requirements:

- Fluent English (working language)
- Italian, French or Spanish fluency is a plus
- EU residency or valid EU work permit
- Willingness to relocate to Valencia, Spain
- Proactive, organized, rigorous, autonomous and flexible.
- Open-minded with the ability to adapt to innovate.
- Passion for technology, yachts, the ocean, and water-based activities

CH values candidates who want to contribute to advanced marine technologies by combining strong engineering judgement, practical design capability, hands-on development, and real-world testing.

HOW TO APPLY

If you are willing to be part of an international group who aim to lead the innovation, the technology development and the transformation of the nautical and maritime industries towards more efficient, cleaner and more sustainable industries, please contact us at jobs@caponnetto-hueber.com using the offer reference in the title and include your CV and references in English.