VACANCY NOTICE

AUV Engineer (220713)

Primary Location: Italy-La Spezia  
NATO Body: Centre for Maritime Research and Experimentation (CMRE)  
Schedule: Full-time  
Application Deadline: 02-Oct-2022  
Salary (Pay Basis): 5,378.03Euro (EUR) Monthly  
Grade: NATO Grade G15  
Clearance Level: NS

Appointment will be subject to receipt of a NATO SECRET security clearance (provided by the national Authorities of the selected candidate) and approval of the candidate’s medical file by the CMRE Medical Adviser.

CMRE’s Engineering and Information Technology Division (EITD) is looking for an experienced Engineer excited about designing, developing and testing new concepts of Autonomous Underwater Vehicles. Are you excited about innovation? Apply today and join a top quality international team!

GENERAL BACKGROUND

The Centre for Maritime Research and Experimentation (CMRE) is part of the NATO Science and Technology Organization (STO). CMRE is an established, world-class scientific research and experimentation facility that organizes and conducts scientific research and technology development, centred on the maritime domain, delivering innovative and field tested Science & Technology (S&T) solutions to address defence and security needs of the Alliance.

CMRE has more than 60 years of experience and has produced a cadre of leaders in ocean science, modelling and simulation, acoustics and other disciplines, as well as producing critical results and understanding that have been built into the operational concepts of NATO and the Nations.

POST DESCRIPTION

Location: La Spezia, Italy, 80 Km north of Pisa, on the Gulf of La Spezia  
Division: Research Division

POST CONTEXT

This is a position within the Centre for Maritime Research and Experimentation (CMRE), an organization of the North Atlantic Treaty Organization (NATO). CMRE is an established, world-class scientific research and experimentation facility that organizes and conducts scientific research and technology development, centred on the maritime domain, delivering innovative and field tested Science & Technology (S&T) solutions to address defence and security needs of the Alliance.
This position is within The Engineering and Information Technology Division (EITD), which supports the execution of the Programme of Work. EITD consists of the Engineering Department (ED) and the Information Technology Department (ITD).

**ED**

ED addresses the engineering and technological requirements of the Centre's research activity, by designing, developing, constructing, testing at-sea and maintaining, repairing and calibrating electronic, oceanographic, mechanical, acoustical assemblies and unmanned systems, especially prototypes, or combinations of such units as required.

**ITD**

ITD supports the conception, design, development and construction of state-of-the-art technologies in computing, networking and data infrastructure as well as developing, integrating, and validating software applications, services and products. All this is done while ensuring interoperability, security and compliance with relevant NATO policies and regulations.

The position is within the Embedded Systems Section within ED.

**PRINCIPAL DUTIES**

Under the supervision of the Section Head, working autonomously or participating in working groups or project teams, the Incumbent will be responsible for the provision of Technical Services within the Engineering and Information Technology Department and his/her duties will include the following tasks:

- Design, develop and test new concepts of Autonomous Underwater Vehicles
- Integrate sensors and custom payloads into autonomous marine platforms by implementing hardware and software interfaces
- Specify, procure, test and operate Autonomous Underwater Vehicles at sea
- Schedule and record planned inspection, maintenance, calibration and safety testing of equipment, to ensure efficient operation with particular concern for the safety of Personnel
- Act as project manager of engineering projects
- Participate in writing internal technical documents as well as technical publications for international scientific conferences and/or journals
- Participate in sea trials, and provide professional expertise and/or coordination to operations
- Contribute to preliminary evaluation, technical and financial quotation, planning and management of Centre’s Projects
- Act as Point of Contact for External Contractors and Companies assisting in the day-to-day maintenance and operation of the Centre’s AUV assets
- Act as Point of Contact for CMRE Internal Stakeholders, and specifically the Program and Project Managers, assisting in the planning, preparation and execution of Scientific Sea Trials and Engineering Tests
• In partnership with Software Development and Data Management section, coordinate the design and implementation of the embedded scientific software.
• Develop and maintain an appropriate documentation of UUVs and USVs maintenance and development actions
• Organize Sea and Land based Trials, including instrument preparation and logistics (loading/unloading, transportation and set-up)
• Contribute to enhance and exploit the UXVs technology at CMRE, keeping abreast of technical developments in the field
• Conduct acceptance testing on purchased equipment

SPECIAL REQUIREMENTS AND ADDITIONAL DUTIES

a. Flexibility Clause
   • The incumbent may be required to perform other related duties even in other parts of the organization as directed;
   • As required by the Program of Work, the incumbent may be asked to participate in working groups or project teams and to coordinate and organize the work of other scientists and staff.
All other related duties should correspond with the required competencies for the job.

b. Deployment/Travel
The incumbent may be required to perform his/her duties onboard Centre or chartered vessels. The incumbent may be required to undertake TDY assignments within and outside NATO boundaries.

ESSENTIAL QUALIFICATIONS

a. Professional/Experience
   • Experience with operating, maintaining, performing design, development and at-sea testing of Autonomous Underwater Vehicles
   • Experience in hardware and software integration of custom payloads into Autonomous Underwater Vehicles including embedded CPUs, GPUs and communication devices (acoustic modems and radio links)
   • Experience in participating to technical experiments at sea, and broad knowledge of marine and underwater research activities (data collection and evaluation)
   • Advanced knowledge of Linux systems setup, configuration and operation.
   • Advanced knowledge of one or more state-of-the-art programming languages for embedded computing (C/C++, Python)
   • Experience in multichannel data acquisition systems, data storage and accurate data timing and synchronization
Experience in the implementation of industrial data communication busses (Ethernet, serial, CAN, LonTalk)

See Par. 4.b.

b. **Education/Training**

- Bachelor Degree at a Nationally Recognized/Certified University in a post-related discipline (Electronic, Electro-Mechanical, Robotics or Computer Science), with 2 years post-related experience

Or:

- Exceptionally, Higher Vocational Training in a post-related discipline (Electronic, Electro-Mechanical, Robotics or Computer Science) and at least 6 years extensive and progressive expertise in duties related to the function of the post.

c. **Language Requirements**

A thorough knowledge of one of the two NATO languages, both written and spoken, is essential and some knowledge of the other is desirable.

English SLP 3333

**NOTE:** Work at CMRE is conducted in the English language.

d. **Certification**

The incumbent needs to hold a fit for sea certificate in line with the International Maritime Organization (IMO) and International Labour Organization (ILO) standards before taking up duty or capable of getting it during the first 6 months of employment.

**DESIRABLE QUALIFICATIONS**

- Master Degree, at a Nationally Recognized/Certified University in a post-related discipline (Electronic, Electro-Mechanical, Robotics or Computer Science)
- Experience in general Ocean Engineering support and management activities, in an underwater research or industrial environment
- Relevant experience in specific Ocean Engineering fields (Autonomous Underwater Vehicles, Underwater Acoustic and Oceanographic Systems)
- Experience in evaluating AUV navigation performance and calibration of inertial navigation systems (INS)
- Experience with one or more of the following autonomous vehicles: OEX class, Bluefin BP21, Remus-100, Iqua Sparus, Boeing/Liquid Robotics WaveGlider.
- Experience with state-of-the-art middleware for robotic software implementation (ROS, MOOS-IvP)
• Experience supervising people in day-to-day engineering tasks.
• Experience in Project Management (e.g. Prince 2)
• Experience in a customer funded work environment.
• Experience in an international environment.

REMARKS

The duties are mostly performed in an office environment but may include work on board of a vessel.

HOW TO APPLY:

Applications are to be submitted using the NATO Talent Acquisition Program (NTAP) https://nato.taleo.net/careersection/jobdetail.ftl?job=220713&lang=en
Applications submitted by other means are not accepted. NTAP allows adding attachments. Essential information must be included in the application form. Particular attention should be given to Education and Experience section. Each question should be answered completely. Expressions such as “please see annex / enclosed document” or invitations to follow links to personal webpages are not acceptable and will be disregarded. All answers should be in English preferably, or French.