VACANCY NOTICE

Acoustic Engineer (220701)

Primary Location: Italy-La Spezia
NATO Body: Centre for Maritime Research and Experimentation (CMRE)
Schedule: Full-time
Application Deadline: 25-Sep-2022
Salary (Pay Basis): 5378.03 Euro (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 Sonars and Marine Sensors Engineering Section is looking for an acoustic engineer with experience in the design and development of underwater acoustic arrays. Part of the job includes coordinating sea trials aboard the Centre’s research vessels including instrument preparation, and subsequent installation/cabling onboard, or onshore, and at times participation in the trials.

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

1. POST CONTEXT
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 Sonar and Marine Sensors Section within ED.

2. **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 may include the following tasks:

- Designs, constructs and documents underwater acoustic systems and arrays.
- Provides key technical information to the Section Head for the preparation of acoustic systems cost/manpower estimates for internal and customer funded projects.
- Participates in meetings with clients to discuss and define technical requirements for acoustic systems.
- Plays a leading role in the preparation and execution of Factory Acceptance Testing (FAT) and Sea Acceptance Testing (SAT) of acoustic systems.
- Supervises Technicians and Contractors involved in the building and servicing of acoustic systems.
- Provides post-cruise or post-delivery support to the end user of the product.
- Performs and supervises the programmed maintenance of equipment under the responsibility of Acoustics & Geophysical Section.
- Specifies, obtains quotes and generates purchase requests for equipment and components. Subsequently conducts inspection and acceptance testing on delivered items.
- Organizes and coordinates sea-trials, land based trials and logistics, including instrument preparation, and subsequent installation/cabling onboard.
- Keeps abreast of technical developments in the field.

3. **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 Technicians and Craftsmen. 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.

4. **ESSENTIAL QUALIFICATIONS**

a. **Professional/Experience**

- Experience in design, construction and documentation of underwater acoustic systems and arrays for research customers.
- Advanced knowledge of mechanical CAD (e.g. SolidWorks) and electrical CAD (e.g. Eagle).
- Sea-trials experience including leading roles in Sea Acceptance Testing of acoustic arrays and systems.
- Experience in mobilizing and de-mobilizing equipment for trials.

b. **Education/Training**

- A minimum requirement of a Bachelor's degree at a nationally recognised/certified University in electronics or electromechanical engineering and 2 years post-related experience.

or

- Exceptionally, the lack of a university degree may be compensated by the demonstration of a candidate’s particular abilities or experience that is/are of interest to CMRE, that is, at least 6 years extensive and progressive expertise in duties related to the function of the post (electronics, computer science/information technology, engineering or marine sciences domain with focus on underwater acoustic systems).

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: Most of the work of CMRE is conducted in the English language.
5. **DESIRABLE QUALIFICATIONS**

- A Bachelor’s degree at a nationally recognised/certified University in electronics or electromechanical engineering and 4 years post-related experience and 10 years of experience in a related field in the case of lack of a University degree.
- 10 years of experience in design, construction and documentation of underwater acoustic systems and arrays for both Military Navy and research customers
- 10 years of sea-trials experience including leading roles in Sea Acceptance Testing of acoustic arrays and systems
- Possess the multi-disciplinary engineering knowledge required to transform the customer’s underwater acoustic system specifications into a realizable product. This requires an understanding of the interactions between acoustic, electrical and mechanical components involved in the construction of underwater acoustic systems, and the effects of the resulting tradeoffs on overall system performance.
- Ability to design mechanical items (including terminations, pressure-vessels, connectors, spacers, hydrophone bulkheads etc. using SolidWorks). Possess skills required to produce the aforementioned components autonomously using manual workshop equipment including lathes and milling machines.
- Ability to design electronic systems including preamplifiers, from prototype to PCB. Possess skills required to autonomously populate (including SMD), test and document the resulting PCB using laboratory instrumentation and CAD tools.
- Experience in the organization of a team of technical staff to manufacture a complex acoustic array containing hundreds of hydrophones and many tens of meters in length. Knowledge and experience in design, construction and maintenance of military surface ship and submarine towed arrays.
- Production of comprehensive documentation, including manuals, design specifications, test plans, test reports, electrical schematics, production-standard mechanical drawings.
- Design of acoustic payloads for AUVs and underwater Gliders, with subsequent evaluation at sea.
- Knowledge of Slocum glider design, mechanics, electronics and mission programming.
- Design and construction of underwater vector sensors.
- Experience in an International environment.
- Experience in a customer funded work environment.

**REMARKS:**

The successful candidate will be offered a 3-year definite duration contract, which may be renewed.

**HOW TO APPLY:**
Applications are to be submitted using the NATO Talent Acquisition Program (NTAP) [https://nato.taleo.net/careersection/2/jobdetail.ftl?job=220701&lang=en](https://nato.taleo.net/careersection/2/jobdetail.ftl?job=220701&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.