TALEO Job Number: 220582
Job Title: (Medior) Scientist, Signal Processing
NATO Grade: G15
Basic MONTHLY salary (12x per year): 5378.03
Closing Date: 04 Sept 2022

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.

Are you a seasoned Scientist with vast experience in Signal Processing? Do you have experience in working in the underwater acoustics domain? Do you enjoy working in a challenging international environment? If so, CMRE is looking for you!

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 Gul of La Spezia
Division: Research Division

POST CONTEXT

The position is within the Research Division (RD), which is responsible for identifying, developing and delivering Science & Technology (S&T) solutions to the needs of the Alliance in the maritime domain.

The Division leads the development of CMRE’s scientific strategy and through its capability in ocean sensing, numerical modelling, big data analytics, artificial intelligence and autonomy, and delivers the Centre's S&T goals while maintaining CMRE’s reputation within the scientific community.
The Research Division comprises the four following sections:

- Antisubmarine Warfare (ASW)
- Mine Countermeasures (MCM)
- Data & Environmental Knowledge and Operational Effectiveness (D-EKOE)
- Maritime Unmanned Systems Enablers (MUSE)

This position is within the MCM Section and will support the Planning and Evaluation for autonomous naval MCM within the Autonomous Naval Mine Counter measures (ANMCM) Programme.

**PRINCIPAL DUTIES**

Reporting to the Section Head and working within a matrix structure, the incumbent will perform duties such as the following:

- Support the ANMCM Programme to enhance both the scientific understanding and operational/tactical employment of Maritime Unmanned Systems (MUS) for MCM operations through Operational Research studies and at sea experimentation.
- Maintain knowledge and understanding of up-to-date operational analysis techniques together with advances in maritime unmanned systems technology and robotics.
- Act as impartial analyst for various technological solutions to unmanned MCM in order to provide Nations with advice as to the most suitable concepts.
- Contribute to development of future tactics and doctrine towards the conduct of unmanned missions.

**SPECIAL REQUIREMENTS AND ADDITIONAL DUTIES**

**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.

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

**ESSENTIAL QUALIFICATIONS**

Professional/Experience
• Experience of optimisation algorithms (scheduling, path planning) and/or signal processing
• A publication record documenting the application of operational analysis studies in academic publications or laboratory reports.
• Knowledge of scientific programming languages: Python, or similar
• Experience with the usage of simulation techniques to perform analyses of complex systems-of-systems operating in unbound environments.

Education/Training

• A minimum requirement of a scientific Bachelor’s degree at a nationally recognised/certified University in a related discipline (e.g. Operations Research, Mathematics, Physics, Engineering, Robotics) and 2 years post-related experience.

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.

Certification

The incumbent needs to be holder 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 in software engineering, computer science or equivalent.
• Experience in software security and in developing/deploying software products in highly secured environments
• Knowledge of Web application frameworks and Web server configurations
• Knowledge of Kubernetes
• Experience with data portals such as CKAN
• Experience with NATO Core Data Framework

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=220582&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.