

Job Title: Materials and Processes Engineer

Req ID 9924 - Posted 15/05/2020



EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technology, Engineering and Quality.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. Applications from women are encouraged.

Post

Materials and Processes Engineer

This position is classified A2-A4 on the Coordinated Organisations' salary scale.

This position forms part of ESA's Advance Recruitment Scheme which is established to provide appropriate staffing resources when requirements materialise.

Appointments are therefore made for an initial duration of two years upon which you may be appointed to a permanent post at the Agency.

Location

ESTEC, Noordwijk, The Netherlands

Description

Materials & Processes Engineer in the Materials & Processes Section of the Structures, Mechanisms & Materials Division, Mechanical Department, Directorate of Technology, Engineering & Quality.

The Section provides functional support to ESA projects and carries out technological research (R&D) in the area of materials and associated manufacturing processes.

Duties

Reporting to the Head of Section and within the technical fields described above, your main tasks and responsibilities will include:

- providing expert technical support and consultancy to ESA projects, programmes and general studies in the field of materials and processes throughout all project phases, with a particular focus on composite and metallic materials, related bonding and joining processes, material/process relationships, predictive performance modelling, process/product verification, defect analysis, electronic assembly verification, etc.
- participating in feasibility studies, project reviews and evaluations of procurement proposals;
- supporting the selection of materials, mechanical parts and processes for ESA programmes in the framework of materials and processes review boards;
- identifying critical development problems, assisting in their resolution;
- contributing to definition of technology development requirements and work plans for the Agency's Technology Programmes;
- defining, initiating and managing R&D activities covering long- and short-term needs;
- fostering new application areas for multidisciplinary activities, placing emphasis on innovative concepts, cutting-edge technologies and system architectures;
- supporting tests, qualifications, and failure investigations by coordinating relevant laboratory test activities and in particular modelling of materials performance related to applied processes and stimuli (including electronic assemblies) and drafting reports;
- liaising and collaborating with other engineering disciplines;
- developing test and modelling methodologies for evaluations of materials and for verifying processes against application requirements;

- participating in the definition, drafting, implementation and updating of ECSS standards relevant to the Section's domain of competence;
- supporting implementation of the ESA Advanced Manufacturing Cross-Cutting Initiative, proposing new batches of associated activities by reviewing/assessing the (advanced) manufacturing technologies focussing on digitalisation and virtual manufacturing currently being used in the European research and technology landscape, ensuring synergy with other industrial high-end technology domains (aeronautics, nuclear, automotive, medical);
- monitoring applicable scientific and technological trends, maintaining state-of-the-art expertise;
- contributing to the dissemination of the results of activities performed and the transfer of knowledge across the Agency.

Duties may include supporting other activities within your field of competence.

Technical competencies

General background and specific experience in the technical domains covered by the position
Experience with the development, validation and implementation of relevant tools and methods
Understanding of related technologies, R&D trends and the industrial landscape
Project support experience in a relevant domain
Experience in the management and monitoring of industrial activities, including participation in reviews
Experience with Space Engineering Standards and their preparation and implementation

Behavioural competencies

Communication
Teamwork
Customer Focus
Innovation & Creativity
Problem Solving
Planning & Organisation

Education

A Master's degree or equivalent qualification in materials engineering or science, computational modelling or another related field is required.

Additional requirements

General engineering, materials science and related manufacturing processes. A good knowledge of materials performance and processing. Some years' professional experience in a relevant industrial environment will be an asset.

Other Information

For behavioural competencies expected from ESA staff in general, please refer to the ESA Competency Framework.

The working languages of the Agency are English and French. A good knowledge of one of these is required.
Knowledge of another Member State language would be an asset.
The Agency may require applicants to undergo selection tests.

The closing date for applications is 12 June 2020.

If you require support with your application due to a disability, please email contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom, Canada and Slovenia.

According to the ESA Convention the recruitment of staff must take into account an adequate distribution of posts among nationals of the ESA Member States. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented Member States.

(<http://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.