



**FUSION
FOR
ENERGY**



VACANCY NOTICE

Technical Specialist – Analysis & Codes

Fusion for Energy (F4E) is looking to recruit a Technical Specialist for the Analysis and Codes Group inside the ITER delivery Department, who will play a key role in furthering F4E's contribution to the construction and operation of ITER, the largest fusion energy machine in the world, as well as to the technological exploitation of JT-60SA.

Reference	Grade	Location	Closing date
F4E/CA/FGIV/2024/0147	Contract Agent FGIV	Barcelona, Spain ⁱ	23/04/2024- 12:00 noon (CET)

Is this job for you?

If you want to make a difference to the future of sustainable energy and would like to work on a multi-billion euro first-of-a-kind development project, this job is for you.

Technical ownership, critical thinking, solid capacity to collect and manage information from several sources, and the ability to successfully work as part of an integrated team are key components of the ideal candidate.

Several hundred industrial partners are currently under contract, designing and manufacturing complex one-off components, with an annual expenditure in the order of 1 billion € per year. The permanent improvement of an already high-quality standard throughout the supply chain is of greatest importance to F4E, both from a nuclear safety regulatory perspective, and to ensure confidence that the gigantic systems will perform to its specifications, making ITER a success.

Important! This vacancy covers three profiles:

- 1) Neutronic engineer**
- 2) Neutronic-mechanical engineer**
- 3) Fusion structural engineer.**

Candidates are required to indicate in their application which profile they apply otherwise they will not be considered for further evaluation.

N.B: Candidates can only apply for one of the three profiles.

Why F4E?

F4E, a European Union Joint Undertaking headquartered in Barcelona. It specifies and manages the production of the European contribution (45%) to ITER. This research fusion machine, currently under construction in Cadarache, France, will constitute a major leap towards the clean and sustainable generation of abundant base load energy, complementing renewables. To find out more about F4E, visit us at <https://fusionforenergy.europa.eu/>.

We are committed to Diversity & Inclusion

Fusion for Energy is an equal opportunities employer and takes care to avoid any form of discrimination. As part of its commitment to diversity, gender equality and geographical distribution, F4E strongly encourages applications from female candidates and applies a policy of equal opportunities. It does not discriminate against anyone on grounds of gender, race, colour, ethnic or social origin, genetic features, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability or sexual orientation.

Fusion for Energy offers measures to reconcile professional and private life and will provide reasonable adjustments at the workplace for persons with disabilities.

Your key areas of impact

As a member of the Engineering Unit, the Technical Specialist will work under the coordination of the Analysis and Codes Group Leader.

The Technical Specialist will support the design of ITER components, assess the impact of non-conformities and deviations that may arise during the manufacturing of ITER component, and review analysis carried out by F4E industrial partners.

The successful candidate will amongst other tasks, be responsible for:

- Provide regular and accurate analyses, reports, reviews and evaluations of results of engineering analyses related to the design of nuclear shielding (e.g. neutronics, thermo-mechanical, etc.)
- Support integration activities of nuclear shielding components (e.g. definition and control of interfaces, management of environmental conditions data)
- Support the follow-up of QA and nuclear safety requirements in analysis procurements and in house calculations or any other analysis activity concerned by F4E Quality system
- Support the preparation of technical specifications, technical reports, internal documentation, memorandums, presentations and monitoring reports among others, including any required interfacing activity with other F4E groups like Contract and Procurement, Project Management or IO-CT.

What can we offer you?

Life in Barcelona

Barcelona offers professionals and families a high quality of life. It has a year round average temperature of 18°C and complements its cosmopolitan lifestyle and vibrant cultural life with the nature of the Mediterranean coastline and the Pyrenees.

The city is strategically located between the sea and the mountains and it is served by an international airport. Barcelona is a cosmopolitan city with Roman remains, medieval quarters and the most beautiful examples of 20th century modernism and avant-garde architecture.

Salary and benefits

As an indication, the basic monthly salary for grade FG IV (Grade 13) is currently €3,982.82. In addition to the basic salary, staff members may be entitled to various allowances, in particular a household allowance, expatriation allowance (16% of basic salary and household allowance), dependent child allowance and education allowance. The salaries of contract agents are subject to a community tax deducted at source and are exempt from national taxation.

Where you would need to relocate, you would normally benefit from relocation and removal reimbursements.

F4E has agreements with local international schools to support access to schooling for the dependent children of its staff.

Work-life balance

F4E enables staff members to reconcile family and professional life by offering flexible work arrangements and teleworking.

F4E staff members enjoy a basic entitlement of 24 days of annual leave as well as +/- 18 statutory public holidays per annum. Additional leave days may be granted for age and distance from the place of origin.

How will we evaluate your application?

A Eligibility Criteria - you can apply if:

A1. You fulfil five general requirements

1. Being a citizen of one of the Member States of the European Union or of a third state fully associated with the Euratom fusion programme.
2. Enjoying your full rights as a citizenⁱⁱ.
3. Have fulfilled the obligations imposed on you by the laws of your home country concerning military service.
4. Producing the appropriate character references as to your suitability for the performance of your duties.
5. Being physically fit to perform your dutiesⁱⁱⁱ.

A2. Your Education & Experience are in line with our requirements^{iv}.

On the closing date of the application process, you must have:

A level of education which corresponds to completed university studies of at least three years attested by a diploma.

A3. Your Language Skills are developed

You must produce evidence of excellent written and spoken communications in English and of a satisfactory knowledge of another official language of the European Union.

B Your Qualifications and Experience

B1. Important! Candidates are required to indicate in their application which profile they apply otherwise they will not be considered for further evaluation.

N.B: Candidates can only apply for one of the three profiles.

For all three profiles it is essential that candidates possess the following:

- University degree in Engineering, Physics or equivalent

Specific to each of the following profiles it is essential that the candidates possess the following:

1) Neutronic Engineer

- **At least 4 years** of proven work experience in the field of nuclear analysis using Monte Carlo transport codes such as MCNP and/or OpenMC applied to nuclear facilities (both fission or fusion). Participation in the design, construction or commissioning phase of shielding or radiation facilities. Knowledge of relevant nuclear physics, shielding and radiation transport principles.

2) Neutronic-mechanical engineer

- **At least 2 years** of proven work experience in the field of mechanical and thermo-mechanical analysis including structural assessments using ANSYS APDL software **plus at least 2 years** of proven work experience in the field of nuclear analysis using Monte Carlo transport codes such as MCNP and/or OpenMC. Participation in the design, construction or commissioning phase of shielding or radiation facilities. Knowledge of relevant nuclear physics, shielding and radiation transport principles.

3) Fusion structural engineer

- **At least 4 years** of proven work experience in mechanical, thermo-mechanical and structural assessments using ANSYS APDL software with application to fusion devices.

B2. Advantageous Selection Criteria

In addition to the above, the following criteria will be considered:

- Master's degree or PhD in Nuclear Engineering or equivalent.
- Working experience in any of the following code: NJOY, Spaceclaim, FISPACT, SuperMC, ACAB, ABAQUS, COMSOL.
- Working experience of scientific programming languages such as PYTHON and/or FORTRAN.
- Knowledge of fusion-based experimental devices: ITER, IFMIF and JT-60SA in particular.
- Working experience on HPC computing systems.
- Working experience in a European or international environment.

B3. Competencies

The following competences will also be assessed:

- Good analytical capabilities.
- Ability to work both autonomously and as an integrated part of a team.
- Strong communication skills.
- Good organisational skills.

Submission of applications

The online application process starts upon clicking "**CLICK TO APPLY**" next to a vacancy of your interest on the Open Positions page: <https://jobs.f4e.europa.eu/>

You must register your application online through the F4E E-recruitment tool by creating a valid F4E user account and submitting the documents mentioned below.

Please note that the online e-recruitment application tool is the only acceptable means of submitting/sending job applications. You are responsible for keeping your e-mail addresses and personal details up to date in your profile in the F4E online application tool.

The mandatory fields in the profile marked with an asterisk should be duly filled in and you are requested to submit the following two documents:

- A detailed Europass Curriculum Vitae in **English** (can be obtained at the following address: <http://europass.cedefop.europa.eu/en/documents/curriculum-vitae>)
- A motivation letter of 2 pages maximum in English

Applications must be complete and validly submitted by the closing date for submission of applications
Not later than 23/04/2024 at 12h00 noon Barcelona time.

In case you encounter technical problems when trying to submit your application via the e-Recruitment tool, please take a screenshot and send it to hr-selections@f4e.europa.eu. It is your responsibility to inform F4E about any technical problem immediately, within the deadline mentioned above.

Please, do not send any supporting documents (i.e.: copies of your ID-card, educational certificates, evidence of previous professional experience etc.) with your application at this stage if not specified in the Vacancy Notice.

Conditions of employment

Successful candidates will be placed on a Reserve List, and one of the candidates thereon may be offered this position.

For more information on the selection process of Contract Agents and on the contractual and working conditions, please, refer to the "[Guide for applicants](#)" published on the F4E website along with this Vacancy Notice and the [Conditions of employment of Other Servants of the European Communities](#).

How is your data protected?

'Fusion for Energy' as the body responsible for organizing the selection process, will ensure that your personal data are processed as required by Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC Text with EEA relevance. This applies in particular to the confidentiality and security of such data. Personal data shall be processed solely for the purpose of the selection procedure.

You have the right to access and rectify your data. To update your CV and/or Motivation Letter and rectify any incorrect or inaccurate data, please login into your e-recruitment profile before the deadline for submission of the applications elapses.

After the deadline for applications has elapsed, this right will be limited to the rectification of identification details and contact information only.

Please kindly note that at the request of another recruiting EU Agency or Joint Undertaking, and upon consent of the candidates, F4E may share the ensuing reserve list of candidates of a selection procedure with other EU Agencies or Joint Undertakings.

Vacancy published on F4E website on 21/03/2024.

ⁱ Given the needs of the organisation, the candidate may be offered a position at any of the other F4E working places.

ii Prior to any appointment, the successful candidate will be asked to provide a certificate issued by the competent authority attesting the absence of any criminal record.

iii Before their appointment, the candidate shall be medically examined in line with requirement of Article 12(2) (d) of the Conditions of employment of other servants of the European Communities.

iv Only study titles that have been awarded by the Members of the Joint Undertaking or that are subject to the equivalence certificates issued by the authorities in the said Member States shall be taken into consideration.