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Title: MONACO/ ITER Postdoctoral Fellowship (1 Opening)

Description:
Fusion, the nuclear reaction that powers the sun and the stars, is a promising long-term option for a sustainable, non-carbon emitting global energy supply.

The ITER Organization (IO), based in the southern France, welcomes best talents who can together prepare the way to this new energy in a truly multi-cultural work environment.

We offer challenging assignments in a wide range of areas and encourage applications from candidates will all levels of experience. Applications from under-represented ITER Members' nations and women candidates are strongly encouraged, as IO strongly believes that a diversified, equitable, and inclusive workplace is crucial in solving one of the most complex scientific and engineering projects in the world today.

As the IO attracts and retains people coming from a vast array of different backgrounds and cultures, discrimination and exclusion cannot be tolerated. The IO believes it is our diverse perspectives and background that gives unique strength and value to the ITER mission, regardless of race, member nation, gender, religion, status, sexual orientation, or disability - all are welcome and respected at ITER.
The IO is committed to fostering a fair and equitable environment across all areas of the project, including compensation and benefits.
ITER CARE Values (Collaboration / Accountability / Respect / Excellence):
We perform our work with care, we care for the well-being of colleagues, our families and ourselves, and we care about the health of the planet for generations to come. CARE drives our work and our behaviors at ITER.

To see why ITER is a great place to work, please look at this video

Application Deadline: 03/01/2027
Department: Science & Integration Department
Job Grade: P1 (SALARY SIMULATOR)
Language Requirements: Fluent in English (written & spoken)
Contract Duration: 2 years

Overview

Are you looking for an exciting opportunity at the heart of an ambitious fusion energy project? Join us as a **Postdoctoral Researcher** where your goals will include:

- Pursuing a program of original research in an area of fusion science or technology relevant to the ITER Project;
- Contributing effectively to progress in the area of fusion science or technology defined by the agreed research or engineering program at ITER;
- Producing accurate and innovative studies within the defined timeline, writing reports and giving presentation on these researches or cases.

(*Open this document to see the research topic for 2026** *Applications are sought exclusively from postdoctoral researchers who have relevant experience in one or more of the topics described)

Background

In January 2008, a Partnership Arrangement was signed between the ITER Organization and the Principality of Monaco to set up a Postdoctoral Fellowship program. Since then, five young scientists from among the seven ITER Member countries or from the Principality of Monaco have been appointed every two years, and during their two-year appointment, they pursue research in areas of importance to the ITER Project.

The principal motivation of the Research Fellowships is the development of excellence in research in fusion science and technology within the ITER framework.

The Monaco/ITER Postdoctoral Fellowship Program allows young researchers to participate in one of the great scientific and technical challenges of the 21st century and to work closely with leading experts in fusion science and technology within a unique international framework.

Key Duties and Responsibilities

Primary Responsibilities:

Carries out original research under an agreed program in support of the development of fusion energy in many areas of fusion science and technology, including, but not limited to:

- Agentic AI for the Exploitation of Fusion Simulations and Experiments
- Application or the Pulse Design Simulator (PDS) to model main ion and impurity transport and control
- Developing a Digital Twin for Fusion Energy
- Participation in the experimental exploitation of the SPIDER and MITICA test stands at the Neutral Beam Test Facility

Additional Responsibilities:

- Takes an active role collaborating with researchers working in related areas
- Publishes the results of research in appropriate conference proceedings and refereed journals.

Please note that job descriptions cannot be exhaustive, and the staff member may be required to undertake other duties, which are broadly in line with the above primary responsibilities.

Experience & Competencies

Essential:

- **Proven experience** in scientific or engineering research in one of the areas listed in "Key Duties and Responsibilities".
- Demonstrating 'out of the box' thinking and ability to adapt easily.
- Building partnerships and working with other scientists or engineers to identify and evaluate relevant sources of information.
- **Writing & Presentation:** Experience of writing clear technical documentation and publishing or presenting technical and/or scientific reports on specific topics

Desirable:

- Using computational methods to perform physics or engineering analysis.
- Using common scientific computing languages (e.g. Fortran, C).

- **Organizational Savvy:** maneuvering comfortably through complex policy, process, and people related organizational dynamics.
- **Nimble Learning:** actively learning through experimentation when tackling new problems, using both successes and failures as learning fodder.

Qualifications

Essential:

- PhD in Science, Technology and/or Engineering with specialization in a subject related to the ITER Project.
  The applicant must have received their PhD since 1 January 2023, or must receive their PhD prior to the start date of the Fellowship at the ITER Organization.

How to Apply

- Applicants are requested to apply through the ITER.org website.
- The e-Recruitment system will require you to:
  1) Fill-in an online application file
  2) Upload your Curriculum Vitae (including a list of your publications and photocopies of your highest academic qualification) merged in one unique PDF document
  3) Upload a letter of motivation (limited to 1 page) merged with letters of recommendation into one unique PDF document)

The following items apply to all jobs and job holders for the duration of tenure at ITER Organization:

- **The CARE Values are a framework of principles that guide our actions and define the culture and spirit of the ITER Project:**

Collaboration: We collaborate with commitment and flexibility using the power of teamwork, building partnerships, and working with others to reach shared objectives;

Accountability: We are accountable for the whole project - we take responsibility for our specific actions and are transparent in our daily work, holding self (ourselves) and others accountable to meet commitments;

Respect: We treat each other with respect and dignity at all times, knowing that all of us belong here. We appreciate the value that our multicultural and diverse community brings to the ITER Project;

Excellence: We are driven by excellence; we are agile and innovative while maintaining the highest standards of safety, quality and integrity;

- **ITER Core Technical Competencies**:
  1) **Nuclear Safety, Environment, Radioprotection and Pressured Equipment**
  2) **Occupational Health, Safety & Security**
  3) **Quality Control & Quality Assurance Processes**
- **Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members;**
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to perform other duties in support of the project as defined by your line manager, and when relevant upon the request of the matrix manager;

- May be requested to work outside the ITER Organization reference working hours, including nights, weekends and public holidays, due to business needs - this may include on-call, shift work, etc.
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- For staff expected to perform on-call, shift hours, or other work outside ITER Organization reference working hours, including nights, weekends, and public holidays, **the possession of a driving license valid in France is required. no commuting vehicle will be provided by the ITER Organization.**
- Informs management of any important and urgent issues that cannot be handled by line or matrix management and that may jeopardize the achievement of the Project's objectives;

The ITER Organization (IO) is an Equal Opportunity organization committed to diversity and inclusive in the workplace.

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