



Student Program



7th ESSRI Workshop

Energy for Sustainable Science at Research Infrastructures

Madrid September 25-27, 2024



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Ciemat



EUROPEAN
SPALLATION
SOURCE



ERF-AISBL
Association of European-level
Research Infrastructure Facilities

Student Program

ESSRI, Energy for Sustainable Science at Research Infrastructures.

This program aims to promote a collaborative frame for learning and close interaction with experts in the field of energy sustainability in Scientific Research infrastructures. It provides participants with the opportunity to expand and develop their academic and/or professional skills on this topic and establish connections with members of other research organizations and fields.

This program is targeted towards higher education students, preferably in the fields of engineering and sciences.

1. ESSRI Workshop



1.1. Goal

ESSRI, an acronym for Energy for Sustainable Science for Research Infrastructures, aims to identify technical and strategic challenges in developing and implementing sustainable solutions in research infrastructures. This includes sharing experiences regarding energy-efficient technologies, energy management in research infrastructures, reviewing how energy sustainability is addressed in current research projects, analysing the life cycle, and discussing future objectives and trends, among other topics.

1.2. Organizers and Collaborators

The event is organized by CIEMAT, in collaboration with CERN, ESRF, DESY, PSI, ESS, and ERF. It also has the support of ICFA and the I.FAST project from the H2020-RIA program. Furthermore, it has received financial support from INEUSTAR, and UC3M.

1.3. Date and location

It will be held in Madrid from September 25 to 27, 2024, as a continuation of a series of events organized by ESS (2011), CERN (2013), DESY (2015), ELI-NP (2017), PSI (2019), and ESRF (2022).

1.4. Main Topics

The event will address the following main topics:

- **Energy management at research infrastructures,**
- **Energy-efficient technologies,**
- **Life cycle evaluation,**
- **Energy and sustainability on Research Projects and**
- **Next aims on sustainability and materials.**

The event pays special attention to involve higher level students and young researchers on their sessions and activities. To promote such involvement, several student scholarships will be offered.

2. Student Program



2.1. Description

The ESSRI 2024 Student Program offers students under Ph.D. or Master's degree programs in physics, computer science, engineering, and mathematics an opportunity to participate in the workshop, leading to an enriching personal experience. It represents a chance to establish connections with other students, young researchers, and senior scientists.

As part of their participation in the event, students will be required to prepare and present a poster on one of the proposed topics described in [Section 2.5](#).

2.2. Qualification and/or Eligibility Requirements

To apply for a spot in the program, you must meet the following requirements:

- Be a **Ph.D. student** or have completed a **Master's degree** in one of the following fields: Physics, Engineering, Computer Science, or Mathematics by the European summer of 2024.

2.3. Application Process

You will need to submit the following documents in PDF format to complete the application:

- CV.
- Letter of motivation.
- Most recent academic transcript providing an overview of your grades.
- A letter of reference specifically written up for this application from a professor or senior researcher.

The documents will be sent via e-mail to essri2024-loc@ciemat.es.

Files will be named as indicated: XXX_ESSRI24studentprog_YYY.pdf. (XXX for cv, lom, gr, lor, respectively; YYY for the initials of the applicant's name)

The process must be completed before the application deadline.

2.4. Selection Process

After submitting their application, candidates will receive a confirmation email. Subsequently, they will be notified via the same channel whether they have been accepted into the program or not.

An interview process may be suggested by the ESSRI 2024 Student Program Committee if deemed necessary for clarification or further details on the application documents are needed.

The scholarship details are as follows:

- **Event registration fees:** The scholarship covers the full event registration costs.
- **Travel expenses:** A reimbursement of up to €300 will be provided to cover travel expenses. This would include airfare, train, bus, taxi, or any other necessary transportation to attend the event.
- **Accommodation:** A reimbursement of up to €160 will be provided to cover accommodation expenses during the event.
- **Subsistence:** Additionally, an additional amount of up to €140 will be paid to cover other expenses related to attending the event.

2.5. Student and Program Responsibilities

2.5.1. Responsibilities

The scholarship recipients must meet the following requirements:

- Present a poster on the proposed topics in the student session.
- Submit a contribution to the conference proceedings.
- Attend all plenary and technical sessions of the conference.
- Complete a final report about the student's activities in the conference and their view of the event.

2.5.1.1. Schedules

The student poster session will take place on **September 25th between 18:30 and 19:30** during the welcome cocktail.

Time	Activity
13:00 – 14:00	Setting up the posters
18:30 – 19:30	Presentation and interaction with judges and delegates

2.5.1.2. Topics

The posters must be related to one of the following topics:

1. **Renewable Energy and energy efficiency management in Scientific Research:** This topic focuses on the integration of renewable energy sources and energy efficiency practices in scientific research facilities. It involves the use of sustainable energy sources, such as solar, wind, and hydroelectric power, in research facilities and the implementation of energy-saving technologies and practices to reduce energy consumption in research processes.
2. **Energy Efficiency technologies of interest to Research Infrastructures:** Explores various energy-efficient technologies that can be beneficial to research infrastructures. These technologies can range from energy-efficient equipment and components to advanced instrumentation for energy management and conservation. The goal is to

reduce the energy footprint of research infrastructures while maintaining or improving their functionality and performance.

3. **Sustainable Energy and Climate Change. Links to research infrastructures:** This topic examines the relationship between sustainable energy, climate change, and research infrastructures. It looks at how research infrastructures can contribute to climate change mitigation using sustainable energy sources and how climate change can impact the operation and efficiency of these infrastructures.
4. **Sustainable Energy and Energy Storage Technology:** This topic delves into the role of energy storage technologies in promoting sustainable energy. Energy storage technologies, such as batteries, thermal storage, and superconducting magnetic storage (SMES), can help to balance the supply and demand of energy, enhance the reliability of renewable energy sources, and reduce the reliance on fossil fuels.
5. **Sustainable Energy and Circular Economy:** This topic explores the relationship of sustainable energy and the circular economy. It looks at how principles of the circular economy, such as waste reduction and resource efficiency, can be applied to the energy sector to promote sustainability.
6. **Life cycle evaluation:** Involves the assessment of the environmental impacts of a product, process, or service throughout its life cycle. In the context of sustainable energy, life cycle evaluation can help to identify the environmental benefits and drawbacks of different energy sources and technologies, informing providing information about the potential interest for their adoption and use.

2.6. Awards

The Student Program Committee will evaluate the posters presented and grant two awards, each carrying a prize of €250. The evaluation will be based on the scientific/technical value of the presented work and the presentation quality, paying special attention to the student's specific contribution. The winners will be announced during the event's closing.

2.7. Application Deadline

Application Deadline: **July 31, 2024.**

3. Sponsors



The sponsors of the student scholarships are:



