

SECONDMENTS

Industry and HEI Staff Placement to Institute for Sustainable Transition and Development (ISTD) towards Trakia University (2 weeks)

1. Training Institution

Institute for Sustainable Transition and Development (ISTD) towards Trakia University; Division "Hydrogen Technologies and Energy Systems" <https://www.istd.bg/en/>

2. The training covers

Hydrogen Technologies: Fuel Cells and Electrolyzers

3. Short description of the training Institution

The Institute for Sustainable Transition and Development (ISTD) towards Trakia University was established in one of three pilot regions in the Just Transition Fund. It is in close proximity to Maritsa East, the largest coal power generation complex in SE Europe. ISTD has a key role in the transformation of the region to low carbon energy and industry. ISTD Division "Hydrogen Technologies and Energy Systems" has the mission to support the deployment of hydrogen in the region, to develop R&I activities and to be responsible for the education and skilling/reskilling. It is an active member of the CH JU ZAHYR project for establishment of a hydrogen valley in the Region (starting in December 2023). The Division is focused on both low TRL and higher TRL activities concerning respectively PCCC (proton conducting ceramic cells) and development of hybrid traction systems "fuel cell/battery" for different hydrogen electromobility applications based on retrofit.

4. Short description of the training program

Training program "Hydrogen Technologies: Fuel Cells and Electrolyzers"

The course has 2 parts:

Part 1 is more general. It gives basic information about the main principles of hydrogen economy; the role of hydrogen in the energy transition; hydrogen as energy vector; hydrogen value chain: production, storage and transportation, applications; European policy for hydrogen technologies deployment; Bulgarian policy for hydrogen deployment – BG Hydrogen Roadmap (for Bulgarians); legislative issues

Part 2 is technological. It gives information about: the most applied electrolyzers and fuel cells; main requirements in respect to durability; electrochemical testing for durability evaluation, mid-term and long-term trends for development. A special part is related to Electrochemical Impedance Spectroscopy as a powerful tool for FC/EL studies and testing. The training program includes lectures, seminars and practical Lab work.

The training is appropriate for representatives from companies and HEI. It is flexible and can be modified depending on the interest of the participant(s).

5. Expected competence of the trained staff

The trained staff should have basic technical background: bachelor, master degree. The training is appropriate for Ph.D. students, young scientists, engineers.
One training cycle can accept up to 5 students.

6. Additional Information

Working languages: English or Bulgarian
Duration: 2 weeks (compressed for 1 week)
Online version can be also organized.
The secondment is free of charge. There is no specific option for accommodation (if needed).
There will be A list with recommended hotels.
The students receive Certificate.

Responsible:

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