

Summer School Program: Energy Transition towards Sustainability: Renewable Energies and Synthetic Fuels A German and Egyptian Perspective

August 22nd – August 29th 2022
at the University of Cologne, Germany

The summer school aims at bringing together distinguished scholars and young researchers in the field of energy and environmental economics to discuss research advances and relevant policy issues. The program emphasizes intercultural scientific interaction and the exchange of thoughts. It addresses the interface between methodical knowledge transfer and applied research to equip the participants with the essential skill set for contributing to a successful energy transition towards sustainability. We cover a wide range of topics to draw a holistic picture of current global challenges in energy sectors, paying special attention to the energy transition in Germany and opportunities and challenges for Northern Africa, especially Egypt. By doing so, we aim to inspire new research ideas and allow young researchers to develop a global network. To ensure continuity in the joint research between Egypt and Germany, a subsequent winter school will be hosted in Egypt in the winter term 2022/2023.

Schedule

The summer school offers a healthy blend of teaching domain knowledge about various aspects of the energy transition and methodical skills in energy system modeling. In this respect, we focus on the differences and similarities of the German and Egyptian energy landscapes and the challenges associated with the decarbonization of the economy of both countries as representatives of two different world regions. To establish a common ground, we start with an overview of the status quo, trends, and challenges observed related to each country's energy system. In the remaining week, we will discuss the trends and challenges in different sectors alongside the predominant future energy carriers: electricity and hydrogen. Primarily, we will shed light on the growing weather-dependency of electricity supply and the role of hydrogen in future energy systems. Linked to this, from a methodological point of view, we will focus on the role of data in energy system

modeling. Starting with analyzing historical data, participants will learn how to derive insights for the future based on different methodologies such as econometrics, machine learning, and linear programming. All in all, theoretical and practical units deepening both domain and methodical knowledge will alternate to ensure a maximum learning outcome.

To encourage research within the energy sector, participants are asked to share their research or potential research ideas with their peers, doctoral students from the Energy Institute (EWI) and professors from the University of Cologne. Further, there will be the opportunity to develop joint research ideas among the participating students. An affiliated program including field visits and cultural highlights around the region of Cologne, Germany, is designed to encourage interdisciplinary and intercultural exchange and to enable team building among the participants.

Applicants

Applications from any level are encouraged. However, as some knowledge in the field of Energy Economics is expected, the program is designed for Master students and PhD students at an early phase of their PhD. For advanced bachelor's students, a limited number of places are offered. There are also up to 10 places available for international students from all over the world (however, there is no DAAD travelsupport available). Participants are expected to participate in all activities throughout the week. Students from Cairo, Cologne and around the globe in the fields of energy & environmental economics, information systems, industrial organization, and public economics with a strong interest in energy and environmental issues are encouraged to apply.

All summer school participants will receive a participation certificate and are eligible to participate in the subsequent winter school in Egypt.



Submission

Curriculum Vitae - CV

Proof of enrollment from the university

Letter of motivation (max. one page) on which the interest in participating in the summer school, the relation between your research interest and the scope of the summer school, expected benefits, and your contribution to the topic should be highlighted and justified.

Registration

There is no registration fee. However, the space is limited to 30 participants in total. Participants will be selected based on their fit to the scope of the summer school.

Financial Support/Scholarships

Participants from the University of Cologne, the British University in Egypt and the American University in Cairo will benefit from the DAAD-Scholarships as follow:

Students from the University of Cologne will receive a daily allowance of 10 Euro per day during the summer school.

Students from the British University in Egypt and from the American University in Cairo will receive 850 Euro for the flight costs in addition to 39 Euro per day for the accommodation during the summer school in Cologne, Germany.

Scientific and Organizing Committee

Prof. Dr. Marc Oliver Bettzüge, Director of the Institute of Energy Economics at the University of Cologne (EWI) and Chair for Energy Economics at the University of Cologne

Dr. Johanna Bocklet, Senior Research Consultant at the Institute of Energy Economics at the University of Cologne (EWI)

Arne Lilienkamp (M.Sc.), Senior Research Associate at the Institute of Energy Economics at the University of Cologne (EWI)

Markos Farag (M.Sc), PhD student at the Chair for Energy Economics and the Cologne Graduate School

**Check our [BaSEF project website](#) for more details
and [apply now!](#)
Deadline: May 20th, 2022**



Contact

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