

International Summer School CIRCULAR ECONOMY AND ENERGY TRANSITION LEADERS

On-line: 1 - 30 June 2023

On-site: 3 - 7 July 2023, Gliwice, Poland

Project acronym: CEET

Web page: www.etcpl.polsl.pl



Foreword

Day-to-day functioning and further development of modern societies are dependent nowadays heavily on energy supplies. Global energy consumption is constantly growing and conventional finite primary energy sources are already approaching their natural limits. The increasing energy consumption and the continuous development of energy systems raise serious concerns about the state of the environment and the availability of resources. It has been commonly realized that the global energy system requires significant structural, technological, and organizational transformations. The concepts of sustainability and energy transition have been widely agreed upon. Consequently, a significant number of new ideas, approaches, and policy drivers emerged, which were largely enabled by recent developments in the field of technology. The number of possible decision variables, constraints, and degrees of freedom in the design process has been substantially increased. In addition, many new actors have become active in the field, including energy consumers which define new bottom-up approaches and ground-breaking initiatives. Energy systems are also significantly influenced by new economic concepts, such as circular economy, sharing economy, hydrogen economy, green economy, and Society 5.0. New ways of industrial production like ecodesign, lean manufacturing, recycling of materials and partially energy, reuse of products, green supply chain investment and coordination, improvement of energy efficiency, cogeneration, trigeneration, and poligeneration create new energy consumption and supply patterns as well as new links between energy systems and economy.

The aim of the international summer school for undergraduate students is to deepen and update knowledge on recent developments in science and technology, which pave the way towards a low-carbon future. The project will also develop students' competences in the area of the Circular Economy and Energy Transition, including issues related to entrepreneurship and business models.

The summer school will enable undergraduate students to meet experienced scientists and practitioners, who are involved in recent developments in the fields of Circular Economy and Energy Transition. The classes will be conducted by lecturers from renowned foreign universities and from the Silesian University of Technology.

The International Summer School at SUT is a fantastic opportunity to study in heart of Europe, experience the vibrant life of Silesia Region, discover Polish culture and history, as well as enhance your knowledge and academic skills. An integral part of the program is social & cultural events, which are a great chance for networking.

2023 CEET School topics

- Awareness rising and social transition for sustainable future
- Current methods of energy technologies assessment – LCA/TEC and Circular economy approaches
- Waste to energy
- Current trends in renewable energy technologies
- New developments in nuclear energy technologies
- Energy storage and relocation
- Carbon capture storage and use
- Energy efficiency measures for sustainable development
- Contemporary energy economics, business models, energy policy
- Planning future energy systems

New teaching modules and a flexible, hybrid learning system have been designed for the project. Classes of the CEET Summer School will take place on-line as well as in the classroom.

Total teaching load: 80 hours, including 40 hours on-line and 40 hours on-site.

After accomplishing the classes participant will be issued a certificate of attendance.

The number of ECTS credits assigned to the CEET Summer School is 5.

Additionally, the School will organise and deliver social and cultural events, which will take place after classes.

Who can attend

The CEET Summer School is organised for foreign undergraduate 1st and 2nd degree students. The eligibility criteria are:

- confirmed status of student in a country other than Poland;
- on-time registration;

Only limited number of places are available. The target group consists of max 40 students.

Prerequisites. The Summer School will be held in English. In order to participate, students should have sufficient language skills. Participants should also have background in mechanical engineering, energy system engineering or environmental engineering.

In case of the number of candidates is bigger than 40, they will be qualified by the principles of equal opportunities and non-discrimination within the meaning of the Guidelines for the implementation of the law of equal opportunities and non-discrimination, including accessibility for people with disabilities and the principle of equal opportunities for women and men as part of EU funds for 2014-2020.

Tuition fee

Participation in the CEET Summer School is free for registered students. All the costs will be covered by Silesian University of Technology within the framework of the CEET project funded under the NAWA SPINAKE Programme.

The registered participants are eligible for:

- participation in all classes and laboratory demonstrations
- coffee breaks and lunches
- participation in social events
- school materials in printed and electronic form

Scholarships for school participants



Scholarships are available for students from foreign universities.

Up to 40 students from foreign universities can receive scholarships, which will cover full costs of participation including travel, accommodation and living costs. In order to receive the scholarship, school candidates must preregister using the on-line form. After notification from the school, they will be asked to join the CEET project, which is being implemented under the NAWA SPINAKE Programme, and sign a contract with the required attachments.

Registration procedure

Registration procedure for the CEET Summer School consists of the following steps:

1. Candidate fills in the on-line registration form (available at: www.etcpl.polsl.pl/registration).
2. By submitting the application, the candidate accepts the terms & conditions of the Summer School, which are available at www.etcpl.polsl.pl/documents
3. After receiving the application, School Office will inform the candidate by e-mail within 5 days about the registration of the application.
4. Candidates will receive the contract for financing and other documents required within the NAWA SPINAKE Programme.
5. After filling in the documents and signing the contract by both parties, the University and the candidate, the candidate becomes School participant and is fully eligible for all materials and activities of the event.

Important dates

Description	Deadline	Additional information
Registration	31 January 2023	Registration takes place on-line.
Notification on preregistration	Individual	Each candidate will be notified within 5 days after registration form is received by the School Office.
Signing agreement	31 May 2023	The enrollment procedure is closed.
School classes on-line	1 June - 30 June 2023	Detailed schedule of on-line classes will be issued
School classes on-site	3 July - 7 July 2023	Full week event at Gliwice, Poland

Venue

The School will take place at the premises of the Faculty of Energy and Environmental Engineering of the Silesian University of Technology.

Silesian University of Technology (SUT) is one of the most prestigious and top-ranked technical universities in Poland. Located in the Upper Silesia region, it is a modern higher education institution with 75 years of tradition in didactics and scientific research.

Faculty of Energy and Environmental Engineering is located near the centre of Gliwice, approx. 1.5 km from the Central Railway Station (15 min. walk, 7 min. by car), a taxi rank and Bus Station.

Address: [Konarskiego 18, 44-100 Gliwice, Poland.](#)



Gliwice is a medium-size city of nearly 200 thousand inhabitants. The city is an important scientific, research and design centre in Poland. Thanks to the Silesian University of Technology, it is the second (after Warsaw) agglomeration of technical intelligence. During the last 20 years, Gliwice has transformed from a city based on heavy industry into a leader in new technologies.

Apart from that, Gliwice is also well known for its cultural life. A lot of festivals, concerts, exhibitions and other art activities take place in the town. Numerous famous Polish artists and other interesting people (e. g. Nivea cream inventor) originally came from Gliwice. Results of many surveys show that it is one of the most attractive cities in Poland.

The city has a rich history of nearly 800 years. Throughout that time it has undergone several historic transformations. It was ruled by the Silesian Piast Monarchy, the Kings of Bohemia, the Austro–Hungarian Empire, Prussia and Germany, until the city has again become a part of Poland in 1945.

Gliwice is a unique place, where tradition, multicultural heritage, science and modernity intermingle, creating its one-of-a-kind atmosphere of an attractive place to study and live.

Useful link: <https://gliwice.eu/en>

Nearby airports:

Katowice-Pyrzowice 40 km (www.katowice-airport.com)

Kraków-Balice 100 km (www.lotnisko-balice.pl)

Wrocław 170 km (www.airport.wroclaw.pl)

Ostrava (CZ) 95 km (www.airport-ostrava.cz)

Warszawa 310 km (www.porty-lotnicze.com.pl)

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Silesian University of Technology



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