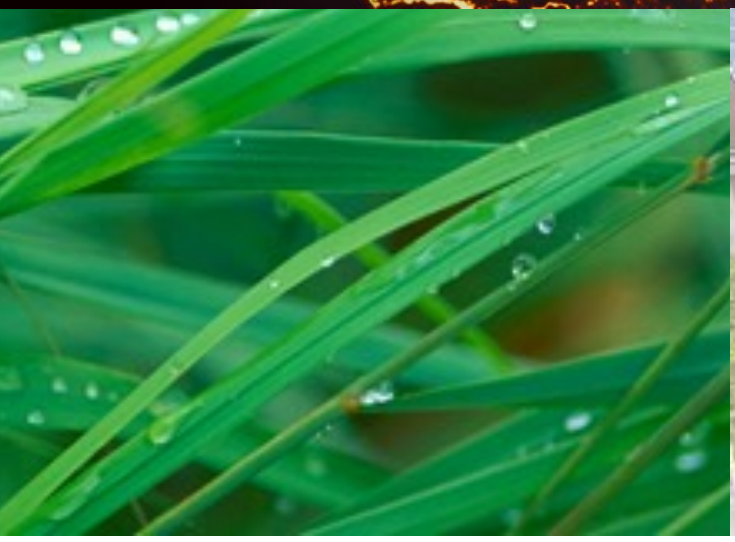
The future energy system

Conference on the latest research to create a stable, planable and sustainable energy system



The conference takes place at Mälardalen University
February 21, 2023
8.30 - 17.00

Mälardalens universitet

TECHNION - SWEDEN
SWEDISH TECHNION SOCIETY

Invitation to the conference "The future energy system" February 21, 2023

Prominent researchers present their solutions for the sustainable energy system of the future February 21, 2023, 8.30 - 17.00.
Organizers:
Swedish Technion Society and Mälardalen University

9.00 **Word of welcome**
Helena Jerregård, vice chancellor Mälardalen University
Stefan Sturesson, Chairman Swedish Technion Society

9.15 **Prof Yoed Tsur: Presentation of Grand Technion Energy Program.**
The Grand Technion Energy Program has generated significant scientific discoveries and major national initiatives and have forged strong industrial and academic collaborations within Israel and with prominent international institutes.

10.00 **Prof Gideon Grader: Efficient Hydrogen Generation - Why and How.**
A new method to produce hydrogen from water will make it possible to produce renewable energy cost-effectively, safely and efficiently.

10.45 **Coffee break**

11.15 **Prof Sabrina Spatari: Life cycle assessment of emerging energy systems.**
This lecture reviews methods and case studies of life cycle evaluation of energy technologies for transportation and buildings that are poised to mitigate GHG emissions to address climate change policy goals.

12.00 **Prof Eva Thorin: Combined heat and power in the energy system**
In this presentation the development of and role of the CHP in Sweden will be discussed and examples of areas of research related to on-going development will be given.

12.50 **Lunch**

14.00 **Prof Daniel Brandell: The future of battery technology**
This presentation will cover an outlook into future battery chemistries and device developments, while targeting specific hurdles for these post-Li-ion technologies.

14.45 **Prof Pietro Campana: Agrivoltaic systems have the potentials to avoid conflicts between sustainable development goals**
This lecture summarizes the main outcomes and challenges of the first agrivoltaic system in Sweden with special focus on the integrated modelling of agrivoltaic systems.

15.30 **Coffee break**

15.50- **Panel discussion about the future energy system.** Summary, questions,
16.45 conclusions. Moderator: Stefan Sturesson

Prof Yoed Tsur, Director of the Energy program at Technion. Wolfson Faculty of. Chemical Engineering. Research fields: Alternative energy sources, Impedance spectroscopy measurements

Prof Gideon Grader, Wolfson Faculty of. Chemical Engineering, Technion. Research Area in Energy: Hydrogen generation and materials for energy applications.

Prof Daniel Brandell
Professor in Materials Chemistry. Researcher within the Ångström Advanced Battery Centre. Uppsala University.

Ass Prof Pietro Campana, School of Business Society and Engineering **,** Division of Sustainable Energy Systems**.** Mälardalen University

Prof Eva Thorin, Research Director for Future Energy Center, Mälardalen University

Ass Prof Sabrina Spatari, Faculty of Civil and Environmental Engineering, Technion. Research Area in Energy: Hydrogen generation and materials for energy applications.

Briefly about Technion and its energy program

The Taub Science and Technology Center at the Technion hosts the Western world's largest computer science faculty. This is just one of the 94 buildings in Technion City in Haifa.

Technion - Israel Institute of Technology in Haifa, is one of the leading universities of technology in the world. It has been ranked as the 6th university worldwide for innovation and entrepreneurship.

Research in the energy field is an important part of the university's research. The program is called Grand Technion Energy Program, GTEP. Since its establishment in 2007, GTEP has become a national hub and center of world-caliber research and education in energy. GTEP-led activities have generated significant scientific discoveries, forged strong industrial and academic ties in Israel and abroad, and attracted first rate faculty members and students.

GTEP researchers participate in various national and international collaborations. They continue to seek opportunities for establishing joint research projects and international exchange of faculty and students with other world leading universities.

How to apply

Welcome to the conference **”The future energy system”.** This is a great opportunity to meet and listen to some of the most eminent and interesting researchers today within the field. Three of our speakers come from the famous Technion - Israel Institute of Technology in Haifa. Please see below information for applying to the conference.

How to apply

Apply by sending mail to: stefan@sirgruppen.se **(mobile 0734-369450).** We need to know name, profession and your contact information.
The entrance fee for the whole conference is SEK 300. If you want to participate in the lunch, SEK 150 is added. Student, teachers and researchers from Mälardalen University pay for the lunch only.
There are two ways to pay for the seminar:
1. In advance to the Swedish Technion Society, **plusgiro 34 31 27-7**
2. In cash at the entrance.

Last day for application is **February 2.** Later registrations to the conference itself can be accepted as long as there are free seats available.

Where to go

The seminar will take place in Västerås at **Mälardalen University, Omega lecture hall, Universitetsplan 1, 722 20 Västerås**

Please come in time, which means 5-10 minutes before the seminar starts.

This seminar is sponsored by

Tekniska föreningen med Elektriska klubben Västerås

Vänskapsförbundet Sverige-Israel Mälardalen

Hjälp Technion att fortsätta sin framgångsrika forskning. Bli medlem i Svenska Technion-Sällskapet

Svenska Technion-Sällskapet
Trefasgatan 4
721 30 Västerås

Mobil ordf: 0734-3694450
Epost ordf: stefan@sirgruppen.se

TECHNION
SWEDISH TECHNION SOCIETY