VSB TECHNICAL UNIVERSITY OF OSTRAVA | CENTRE FOR ENERGY AND ENVIRONMENTAL TECHNOLOGIES

We invite you to an expert seminar focused on emerging directions in industrial energy, decarbonisation and advanced energy technologies. The seminar will connect current scientific knowledge, technological development and practical implications for industrial companies.

New Energy Solutions for Industry

SCIENTIFIC INSIGHTS, TECHNOLOGICAL INNOVATION AND THE FUTURE OF INDUSTRIAL ENERGY

24–26 August **2026**

SEMINAR & WORKSHOP

The seminar will take place at the University Auditorium (UA 178), VSB – Technical University of Ostrava.

Speakers

- **Prof. Hatem Akbulut**
  Sakarya University, Turkey
- **Prof. Bart van der Bruggen**
  Catholic research university in Leuven, Belgium
- **Prof. Pribat Didier**
  Laboratory of Physics of Interfaces and Thin Films, CNRS, Paris, France
- **Dr. Martin Foldyna**
  Laboratory of Physics of Interfaces and Thin Films, CNRS, Paris, France
- **Dr. Andrea Sorrentino**
  Institute for Polymer, Composite and Biomaterials, CNR, Portici, Italy
- **Prof. Tuğrul Çetinkaya**
  NESSTEC Energy & Surface Technologies Inc., Turkey

Topics for discussion

- **Advanced Energy Storage Technologies**
  Next-generation battery storage, thermal energy storage, long-duration energy storage and their importance for the stability of industrial operations operations.
- **New Materials and the Future of Photovoltaics**
  The development of perovskite solar cells, integrated photovoltaics, advanced semiconductor materials and their potential industrial applications.
- **Hydrogen and Synthetic Fuels**
  The potential of green hydrogen in industry, including production, storage, transport and its role in hard hard-to -abate sectors.
- **Next-Generation Nuclear Energy**
  Small modular reactors, advanced reactor concepts and their possible role in securing stable, low low-emission energy for industry industry.
- **Waste Heat Recovery and Industrial Symbiosis**
  Modern heat recovery methods, high high-temperature heat pumps, sharing of energy flows between companies and integration into local energy networks.
- **Artificial Intelligence and Digital Energy Management**
  Predictive energy control, digital twins, optimisation of energy flows, automation and data data-driven energy management in industrial environments.
- **Carbon Technologies and Circular Industry**
  Carbon capture, utilisation and storage, new materials, product carbon footprinting and pathways towards low low-emission industrial production.
- **Future Energy Systems and Industrial Transformation**
  Emerging trends in energy systems, decentralisation, digitalisation, demand demand-side flexibility and the changing role of industrial companies within the energy grid.

Lab -Workshops

POLYMER COMPOSITES FOR ENERGY-RELATED APPLICATIONS

FATIGUE OF MATERIALS

BATTERY COMPONENTS, CELL ASSEMBLY, AND ELECTROCHEMICAL TESTING

SPECTROSCOPIC ELLIPSOMETRY CHARACTERIZATION OF NANOMATERIALS AND THIN FILMS

OPTICS IN PRACTICE: ADVANCED SENSORS AND SECURITY APPLICATIONS

EXFOLIATED 2D GRAPHITE

Please register online to attend.

REGISTRATION

vsb.ceet.cz/en

REFRESH MATUR MEET Cirk Arena