



KIELCE UNIVERSITY OF TECHNOLOGY

FACULTY OF ENVIRONMENTAL
ENGINEERING, GEODESY AND RENEWABLE
ENERGY

VII INTERNATIONAL SCIENTIFIC- TECHNICAL CONFERENCE

ACTUAL PROBLEMS OF RENEWABLE ENERGY, CONSTRUCTION AND ENVIRONMENTAL ENGINEERING

Conference languages: Polish, English, Ukrainian

Partners Conference

**INSTITUTE OF ENGINEERING THERMOPHYSICS
NATIONAL ACADEMY OF SCIENCES OF UKRAINE**



VILNIUS GEDIMINAS TECHNICAL UNIVERSITY



**INSTITUTE OF FLUID-FLOW MACHINERY
OF THE POLISH ACADEMY OF SCIENCES**



Conference Chairs:

Hanna Koszlak

Department of Sanitary Engineering,
Kielce University of Technology

Anatoliy Pavlenko

prof. doctor of science Head of Department of Building Physics
and Renewable Energy, Kielce University of Technology

**KIELCE, POLAND
14-16 DECEMBER 2023**

FRAMEWORK PROGRAM

FIRST DAY – 14 December 2023

Registration of participants

SECOND DAY – 15 December 2023

Conference start time

11⁰⁰–11⁴⁰ *time in Kielce* **Greeting introduction at the conference**

Kielce university of technology

Prof. **Hanna Koshlak** - *Development of renewable energy source in Poland*, Chairman of the Scientific Committee of the Conference

Institute of Engineering Thermophysics of the National Academy of Sciences of Ukraine

Prof. **Borys Basok** - *Hydrogen energy: "pro" and "contra"*

Vilnius Gediminas Technical University, Lithuania

Prof. **Violeta Motuzienė** - *EU taxonomy – implementation of the requirements for building*

12⁰⁰–14⁰⁰ *time in Kielce* **Session I Advances in energy efficient Buildings**

Moderator Borys Davydenko

12⁰⁰–12²⁰ **Ihor Bozhko** – ANALYSIS OF THE ENERGY PARAMETERS OF THE HEAT PUMP HEAT SUPPLY SYSTEM OF ENERGY EFFICIENT BUILDING

12²⁵–12⁴⁵ **Natalia Siwczuk** – INVESTIGATION OF THERMAL COMFORT, PRODUCTIVITY AND LIGHTING AT POLISH UNIVERSITY BUILDINGS

12⁴⁵–13⁰⁰ **Questions to the speakers and their answers**

13⁰⁰–14¹⁵ *time in Kielce* **Session II Latest Research of Building Heat and Mass Transfer**

Moderator Borys Davydenko

13⁰⁰–13²⁰ **Borys Davydenko** – APPLICATION OF A COMBINATION OF TWO DOUBLE-CHAMBER WINDOWS TO INCREASE THE HEAT TRANSFER RESISTANCE OF WINDOW STRUCTURES

13²⁰–13⁴⁰ **Maryna Moroz** – EXPERIMENTAL RESEARCH OF HEAT TRANSFER THROUGH HEAT-INSULATED WALL ENCLOSURE STRUCTURES

13⁴⁰–14⁰⁰ **Sylwia Wciślik** INFLUENCE OF THE HEATING SURFACE GEOMETRY ON THE DROPLETS EVAPORATION UNDER LEIDENFROST CONDITIONS

14⁰⁰–14¹⁵ **Questions to the speakers and their answers**

12⁰⁰–14⁰⁰ *time in Kielce* Session III Building performance simulation, energy efficiency and renewable energy resources for buildings

Moderator [Violeta Motuzienė](#)

12⁰⁰–12²⁰ **[Łukasz J. Orman](#)** – COMPARATIVE ANALYSIS OF THERMAL INSULATION PROPERTIES OF POLISH SINGLE FAMILY HOMES

12²⁵–12⁴⁵ **[Luiza Dębska](#)** – PERFORMANCE OF THE HEAT PUMP AND PHOTOVOLTAIC SYSTEMS INSTALLED IN THE POLISH HOUSE

12⁵⁰–13¹⁰ **[Dalia Mohammed Talat Ebrahim Ali](#)** – AI APPLICATIONS IN BUILDINGS: A REVIEW OF ENERGY MANAGEMENT ADVANCEMENTS

13¹⁵–13³⁵ **[Katarzyna Stokowiec](#)** – HEAT DEMAND COMPARISON FOR ACTUAL TEMPERATURE VALUES

13⁴⁰–13⁵⁵ Questions to the speakers and their answers

12⁰⁰–14⁰⁰ *time in Kielce* Session IV Green technologies in environment and energy

Moderator [Hanna Koshlak](#)

12⁰⁰–12²⁰ **[Marta Zegarek](#)** – RENEWABLE ENERGY SOURCES: SUPPORT MECHANISMS, BENEFITS, AND BARRIERS FOR PROSUMERS AND PRIVATE INVESTORS

12²⁵–12⁴⁵ **[Paweł Lesiak](#)** – REVIEW OF METHODS FOR CONVERSION OF BIOMASS TO BIOFUELS

12⁵⁰–13¹⁰ **[Robert Matysko](#)** – COMPUTATIONAL ANALYSIS OF ELECTRIC FIELD EFFECTS ON ELECTRODIALYSIS FOR ENHANCED DESALINATION PROCESSES

13¹⁰–13³⁰ **[Violeta Misevičiūtė](#)** – MULTI-CRITERIA EVALUATION OF TECHNOLOGICAL SOLUTIONS TO IMPROVE GAS DISTRIBUTION STATION EFFICIENCY

13³⁵–13⁵⁰ Questions to the speakers and their answers

14²⁰–14⁴⁰ *time in Kielce* Summary of the second day conference

THIRD DAY – 16 December 2023

10⁰⁰–10³⁰ *time in Kielce* Summary and Closing of the VII INTERNATIONAL SCIENTIFIC-TECHNICAL CONFERENCE „ACTUAL PROBLEMS OF RENEWABLE ENERGY, CONSTRUCTION AND ENVIRONMENTAL ENGINEERING”
