









#### **Slovak Society of**

**Environmental Technology (SSTP)** 

Association of Slovak Scientific and Technological Societies (ZSVTS)

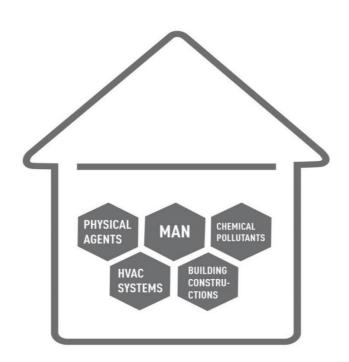
Association of Energy Engineers: AEE Student Chapter - STU Bratislava, Slovakia

Slovak Chamber of Civil Engineers

Slovak University of Technology in Bratislava, Faculty of Civil Engineering

Invite you to 36th annual and 12th International conference

## **INDOOR CLIMATE OF BUILDINGS 2025**



# ENERGY EFFICIENCY AND DECARBONIZED ENVIRONMENT

30. November – 2. December 2025

Nový Smokovec - Hotel ATRIUM \*\*\*, Slovakia

Dear Madam, Dear Sir,

It is my pleasure to invite you to the Indoor Climate of Buildings (ICB) 2025 conference. ICB 2025 is the 36th annual and 12th International conference organized by the Slovak Society of Environmental Technology (SSTP), held in Slovakia.

The conference will examine thermal comfort, indoor air quality, ventilation, exposure and related environmental health concerns associated with building design, construction, retrofit and operation, energy efficiency of buildings. It is a forum mainly for PhD. students and young researchers, to give them chance to gain new knowledge, exchange ideas and contacts for future collaboration with their other international fellows.

The Conference program will be based on keynote presentations given by international speaker and peer reviewed paper and extended abstract presentations of young researchers. The topics of the Conference will cover the following areas:

- Indoor air quality and health
- Indoor climate and comfort of buildings
- Indoor built environment and evaluation
- Energy efficiency and management of Buildings
- Energy Performance of HVAC-R systems
- Outdoor Environment and Renewable Energy

#### International Scientific Committee:

Budiaková Mária, Slovakia Kabele Karel Czechia Krajčík Michal, Slovakia Petráš Dušan, Slovakia Piecková Elena, Slovakia Stutterecker Werner, Austria Šikula Ondrej, Czechia Skotnicova Iveta, Czechia Vilčeková Silvia. Slovakia

### **Professional guarantor of the conference:**

Dušan Petráš - president of ICB Slovak University of Technology in Bratislava Faculty of Civil Engineering Radlinského 11, 811 07 Bratislava petras.tzb@gmail.com Karolína Gábrišová – Slovakian coordinator Slovak University of Technology in Bratislava Faculty of Civil Engineering Radlinského 11, 811 07 Bratislava icb2025.conference@gmail.com

#### Organizing committee:

Jana Lehotová Nôtová SSTP, Koceľova 15 815 94 Bratislava konferencie@sstp.sk

#### **Proceeding editor:**

Zuzana Švecová SSTP, Koceľova 15 815 94 Bratislava sstp@sstp.sk

30. 11. 2025	Sunday				
15.00 10.00	Desistration				
15:00 - 19:00	Registration				
17:00 - 17:30	Opening				
17:30 - 19:00	Plenary session I.				
19:00 - 23:00	Welcome Reception				
1. 12. 2025	Monday				
08:30 – 18:00	Registration				
09:00 – 10:00	Plenary session II.				
10:00 – 10:30	Coffee Break				
10:30 – 12:00	I. Session: Indoor air quality and health				
12:00 – 13:30	Lunch break				
13:30 – 15:00	II. Session: Indoor climate and comfort of buildings				
15:00 – 15:30	Tea Break				
15:30 – 17:00	III. Session: Indoor built environment and evaluation				
17:00 – 18:00	Coorporate Lectures				
20:00 - 23:00	Dinner				
2. 12. 2025	Tuesday				
08:30 – 18:00	Registration				
09:00 – 10:30	IV. Session: Energy efficiency of Buildings				
10:30 – 11:00	Coffee break				
11:00 – 12:30	V. Session: Outdoor environment and renewable energy				
12:30 – 13:30	Lunch Break				

## 30. 11. 2025 Sunday

15:00 - 19:00 Registration

17:00 - 17:30 Opening - Dušan Petráš

17:30 – 19:00 PLENARY SESSION I.

Chairman: Petráš D., Gábrišová K.

1. Building renovation passports: A new tool for systematic energy renovation in the context of the european directive EPBD 2024/1275

Kabele K.: Czech Technical University in Prague, Faculty of Civil Engineering, Czech Republic

2. Age of Air - EVALUATION METHODS

Sikula O.: Brno University of Technology, Faculty of Civil Engineering, Czech Republic

3. Heat Pumps for a Decarbonised Future: Trends, Challenges and Research Opportunities

Stutterecker W.: FH Burgenland, Pinkafeld, Austria

19:00 - 22:00 Welcome Reception

## 1. 12. 2025 Monday

08:30 - 18:00 Registration

9:00 - 10:00 PLENARY SESSION II.

Chairman: Kabele K., Karlová M.

1. Efficacy of nanoparticle antimicrobials against moulds

Piecková E.: Slovak Medical University, Faculty of Medicine, Bratislava

2. Environmental product declarations: significance, benefits, and necessity

Vilčeková S.: Technical University of Košice, Faculty of Civil Engineering

10:00 – 10:30 Coffee break

10:30 – 12:00 I. Session: INDOOR AIR QUALITY AND HEALTH

Chairman: Piecková E., Stiborová P.

1. Impact of solar radiation intensity on indoor microclimate in school gyms

Gábrišová K., Straková Z.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

2. Case study comparing natural and mechanical ventilation in a kindergarten classroom: impact on thermal comfort, energy efficiency, and a carbon footprint in the context of ESG

Stiborova P., Kolarčík V., Skotnicová I., Šikula O.: VSB TU Ostrava; Brno University of Technology

3. Assessment of VOC Emissions from Building Materials: A Review of Methods, Standards and Research Trends

Harčárová K., Vilčeková S., Krídlová Burdová E., Budajová E.: Technical University of Košice

4. Possible Indicators of the Indoor Environment

Smoláriková Z., Krajčík M.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

12:00 – 13:30 Lunch break

## 13:30 – 15:00 II. Session: INDOOR CLIMATE AND COMFORT OF BUILDINGS

Chairman: Budiaková M., Václavová A.

1. Analysis of the efficiency of tubular light guides and their impact on daylighting design in office spaces

Kolarčík V.: VSB TU Ostrava, Faculty of Civil Engineering

2. Importance of edge zones for thermal comfort in apartment

Budiaková M.: Slovak University of Technology in Bratislava, FAD

3. Indoor environment quality in three typical houses in Slovakia with different levels of renovation

Václavová A., Krajčík M.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

4. Fault detection in HVAC systems: Comparative analysis of current methods and Alenhanced opportunities

Schuller K.: FH Burgenland, Pinkafeld, Austria

5. The Role of Buildings in the Emerging Flexibility Market

Bringiotti A.: University of Genoa, Italy

15:00 – 15:30 Coffee break

## 15:30 – 17:00 III. Session: INDOOR BUILT ENVIRONMENT AND EVALUATION

Chairman: Skotnicová I., Říha J.

1. Alternative methods of cooling

Říha J., Kabele K.: Czech Technical University in Prague, Faculty of Civil Engineering, Czech Republic

2. Options for whole or partial building life cycle assessment: Scientific work, practice, and legislative requirements

Karlová M., Kabrhel M.: Czech Technical University in Prague, Faculty of Civil Engineering, Czech Republic

3. Assessing the influence of natural and mechanical ventilation on the hygrothermal performance of timber frame walls

Skotnicová I., Tymová P., Galda Z.: VSB TU Ostrava, Faculty of Civil Engineering, Czech Republic

## 4. The effect of radiant systems on thermal comfort in living spaces

Šimko M., Petráš D., Sokol M., Szabó D.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

5. Analysis of Factors Affecting the Quality of the Indoor Environment of Buildings Almohammed F., Skotnicová I.: VSB TU Ostrava, Faculty of Civil Engineering, Czech Republic

## 17:00 – 18:00 CORPORATE LECTURES

20:00 - 23:00 Dinner

## 2. 12. 2025 Tuesday

08:30 - 09:00 Registration

## 09:00 – 10:30 IV. Session: ENERGY EFFICIENCY OF BUILDINGS

Chairman: Šikula O., Predajnianska A.

#### 1. Dynamic Data in BIM

Michalák L., Straková Z.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

### 2. Digitization of the cultural center - case study

Gorás Š., Krídlová Burdová E., Katunský D., Harčárová K., Vilčeková S.: Technical University of Košice

- 3. Energy concept for a modular building using RES in a lightweight building envelope Bolček M., Kalús D.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering
- 4. Winter Performance of a Double-Skin Transparent Façade Cavity: Temperature and Airflow under Characteristic Weather Conditions

Šveda M., Slovak University of Technology in Bratislava, Faculty of Civil Engineering

#### 5. Evaluating the environmental impact of ground floor designs

Budajová J., Krídlová Burdová E., Harčárová K., Vilčeková S.: Technical University of Košice

10:30 - 11:00 Coffee break

## 11:00 – 12:30 V. Session: OUTDOOR ENVIRONMENT AND RENEWABLE ENERGY

Chairman: Vilčeková S., Mudrá M.

1. Integration of Renewable Energy Sources into District Heating Systems - Insights from the Low2HighDH Project

Mudrá M.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

2. Potential Use and Application of a Tubular Heat Exchanger in Heat Recovery Systems for Waste Pool Water in Thermal Baths

Predajnianska A.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

3. Economic and Environmental Analysis of Waste Heat Recovery from Sewage
Hrnčárová L., Peráčková J.: Slovak University of Technology in Bratislava, Faculty of Civil
Engineering

4. Waste Heat Recovery in Buildings

Kožák B., Koudelková D.: Slovak University of Technology in Bratislava, Faculty of Civil Engineering

12:30 – 13:30 Lunch break

13:30 - 14:00 Closing

## **Organizational information**

30. November - 2. December 2025, Nový Smokovec - Hotel ATRIUM \*\*\*, Slovakia

#### **REGISTRATION FEES:**

ICB Regular participant	97,56	+ 23%	VAT =	120,00 €
ICB Reduced fee participant (Member of SSTP, SKSI)	81,30	+ 23%	VAT =	100,00 €
Student - Presenter	81,30	+ 23%	VAT =	100,00 €
Lunch	16,26	+ 23%	VAT =	20,00 €
Proceedings book	24,39	+ 23%	VAT =	30,00 €
Proceedings on USB	15,45	+ 23%	VAT =	18,00 €
Special requirements	individual o	offer at: k	onferencie	@sstp.sk

<sup>\*</sup> We consider only those participants who have paid the membership fee for 2025 by the start of the conference to be members of SSTP

Registration includes: Access to Sessions, Breaks, Welcome Reception, Conference Slovak Dinner

#### **WIRE TRANSFER INFORMATION:**

Registration fees must be paid in EUR by wire transfer to: Slovak Society of Environmental Technology (SSTP), Koceľova 15 815 94 Bratislava, Slovakia Company ID: 00896918 Tax ID: SK2021491241

Account NO.: 1307192857/0200 Variable symbol: 21 + your company ID

**Details of payment:** Name of company / Forename and Surname of participant\*

**IBAN:** SK67 0200 0000 0013 0719 2857

SWIFT/BIC: SUBASKBX

Please transfer the participation fee to the SSTP account no later than 28. 11. 2025

- We issue advance invoices only upon request (the application serves as a basis for payment)
- Tax document we will send you the invoice by e-mail to the address in the application after the conference
- The participation fee cannot be paid in cash at the conference venue
- The application deadline is 24. 11. 2025 after this date the participation fee will not be refunded
- · A substitute is possible and welcome

<sup>\* (</sup>see membership at www.sstp.sk)

<sup>\*</sup>The participant's name should be clearly legible otherwise the payment cannot be identified.

#### **ACCOMMODATION FEES:**

#### Contractual conference accommodation prices / night

Double room STANDARD / 1 person	90,00€
Double room STANDARD / 2 persons	103,50 €
Double room EXCLUSIVE / 1 person	99,00€
Double room EXCLUSIVE / 2 persons	112,50 €
Extra bed	45,00 €

**The accommodation price includes:** buffet breakfast, parking, WiFi connection, entry to the hotel's vital world 4Elements. The price does not include a local tax of 3.50 euros / person / night

#### ACCOMMODATION is paid individually by each participant at the hotel reception.



#### **MEALS:**

- Buffet lunch: 20.00 €
- You are invited to the welcome reception and dinner by SSTP

Accommodation and meals will be arranged by SSTP according to the completed application form - you DO NOT have to contact the hotel.

The accommodation reservation is binding. In case of non-arrival in the booked room, the participant will bear the cancellation fee.

The programme and registration form can be found on the webpage www.sstp.sk

More information is provided by the organisation guarantor:

- Ing. Karolína Gábrišová (ENG/SK/CZ) icb2025conference@gmail.com
- Jana Lehotová Nôtová (SK/CZ) konferencie@sstp.sk

Please send the registration form to the following e-mail address:

konferencie@sstp.sk

The deadline for applications is 24.11. 2025

## **Diamond partner:**





Main partners:

**Exhibition partners:** 



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#### **Medial partners:**





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