

13th International enviBUILD 2018 Conference
27-28 September 2018



Conference Venue: University of Debrecen, Faculty of Engineering (Ótemető str. 2-4, 4028 Debrecen, Hungary) U.002.

PROGRAMME

27 September 2018

08:30 – Registration

9:00-10:15: **Session No1. Building Materials and Structures**

Chair: Dr. Jan PAŠEK, University of West Bohemia Czech Republic

9:00-9:15: Jiří TESLÍK, Markéta HOŠŤÁLKOVÁ, Nikola VAVŘÍNOVÁ, Technical University of Ostrava: Ignitability Small Attack Flame fire test of gypsum composite reinforced with natural fibres

9:15-9:30: Marie RUSINOVÁ, Miloš KALOUSEK, Miloš LAVICKY, Brno University of Technology, Czech Republic: Behaviour of timber beam structures with suspended ceiling when exposed to fire

9:30-9:45: Romina RISETTO, Ulrich PONT, Ardeshir MAHDAVI, – Technical University Vienna, Austria: Performance comparison of timber-based assemblies and other construction solutions for rooftop extensions

9:45-10:00: Markéta HOŠŤÁLKOVÁ, Nikola VAVŘÍNOVÁ, Veronika LONGAUEROVÁ, Technical University of Ostrava, Czech Republic: Mechanical properties of the gypsum composite reinforcement with wooden fibers

10:00-10:15: Michaela HODULÁKOVÁ, Libor TOPOLÁŘ, Brno University of Technology, Czech Republic: The assessment of the structural changes of fine-grained cement-based composites in the early-age using acoustic testing

10:15-10:45: Coffee break

10:45-12:00: Session No2. Sustainable Building and Environmental Assessments
Chair: Dr. Antonín LUPÍŠEK, Czech Technical University in Prague

10:45-11:00: Silvia BIZOŇOVÁ, Miloslav BAGOŇA, Technical University of Košice, Slovakia: Gas filling in glass system

11:00-11:15: Ulrich PONT, Sigrun SWOBODA, Andreas JONAS, Florian WALDMAYER, Peter SCHOBER, Heinz PRIEBERNIG, Ardeshir MAHDAVI, Technical University Vienna, Austria: Combining scientific approaches in building science and architectural design in academia: A case study

11:15-11:30: Antonín LUPÍŠEK, Jan RŮŽIČKA, Jan TYWONIAK, Petr HÁJEK, Martin VOLF, Czech Technical University in Prague, Czech Republic: Criteria for evaluation of resilience of residential buildings in Central Europe

11:30-11:45: Egzon BAJRAKTARI, Violeta NUSHI, Manuela ALMEIDA, University of Prishtina, “Hasan Prishtina”, Kosovo: Cost efficiency of retrofit measures for typical masonry houses in Kosovo

11:45-12:00: Dušan KATUNSKÝ, Ján KANÓCZ, Viktor KARĽA, Technical University of Košice, Slovakia: Structural Elements with Transparent Wood in Architecture

12:00-13:00: Lunch

13:00-14:30: Session No3. Indoor Climate, Thermal Comfort and Ventilation
Chair: Dr. Roman RABENSEIFER, Slovak University of Technology In Bratislava, Slovakia

13:00-13:15: Radoslav PONECHAL, Daniela JURAŠOVÁ, University of Zilina, Slovakia: The impact of heat gain schedules on summer overheating in typical insulated dwellings

13:15-13:30: Mária BUDIÁKOVÁ, Slovak University of Technology in Bratislava, Slovakia: Influence of Air Distribution in Modern Large University Lecture Hall on Thermal Comfort

13:30-13:45: Aleš RUBINA, Olga RUBINOVÁ, Petr BLASINSKI, Brno University of Technology, Czech Republic: Application of nanofilters for ventilation

13:45-14:00: Ferenc KALMÁR, Tünde KALMÁR, University of Debrecen, Hungary: Numerical evaluation of thermal discomfort in conditions of surface heating and asymmetric radiation

14:00-14:15: Máté LAKATOS, Imre CSÁKY, University of Debrecen, Hungary: The effect of thermal mass on internal temperature in PASSOL Laboratory

14:15-14:30: Ákos LAKATOS, István DEÁK, Umberto BERARDI: University of Debrecen, Hungary: Thermal Characterization of Different Graphite Polystyrene

14:30-14:45: Coffee break

14:45-15:30: Session No4. Hygrothermal Performance of Buildings

Chair: Dr. Ákos LAKATOS, University of Debrecen, Hungary

14:45-15:00: Marie SOKOLOVÁ, Pavla RYPAROVÁ, Czech Technical University in Prague, Czech Republic: Biological susceptibility of earth plasters: the influence of relative humidity on fungal growth

15:00-15:15: Pavel SOUDEK, Lubor KALOUSEK, Antonín ŽÁK, Brno University of Technology, Czech Republic: Hygrothermal Assessment of Roofs with Above-rafter Thermal Insulation in the Detail of the Eave Overhang

15:15-15:30: Daniela JURÁSOVÁ, Peter JURAS, University of Zilina, Slovakia: Behaviour of various experimental wall fragments exposed to real climate conditions – temperature measurement

19:00: Conference Banquet: Grand Hotel Aranybika*, 4025 Debrecen, Piac utca 11-15. (attendance only with banquet ticket)**

28 September 2018

09:00-10:15: Session No5. Energy Performance of Buildings 1.

Chair: Dr. Zsuzsa SZALAY, Budapest University of Technology and Economics, Hungary

09:00-9:15: Stanislav DARULA, Marta MALIKOVA, Slovak Academy of Sciences, Slovakia: Building envelope and energy demand in retrofitting office

9:15-9:30: Jürgen BIESER, Mahmoud KUNBAZ, Apleona HSG GmbH, Germany: An Innovative Approach for Harmonising Availability and Energy Efficiency in Data Centres: A Case Study

9:30-9:45: Lucie HORKA, Jiri HIRS, Brno University of Technology, Czech Republic: Transient simulation study of floor heating systems

9:45-10:00: Dóra SZAGRI, Balázs NAGY, Budapest University of Technology and Economics, Hungary: Building energy analysis of an industrial hall based on dynamic simulations

10:00-10:15: Benedek KISS, Zsuzsa SZALAY, Budapest University of Technology and Economics, Department of Mechanics, Materials and Structures, Hungary: The applicability

of different energy performance calculation methods for building life cycle environmental optimization

10:15-10:45: Coffee break

10:45-12:00: **Session No6. Energy Performance of Buildings 2.**

Chair: Prof. Dr. Stanislav DARULA, Slovak Academy of Sciences, Slovakia

10:45-11:00: Attila KERÉKES, University of Debrecen, Hungary: Energetic impact of preheating of fresh air in added convex window

11:00-11:15: Jan PAŠEK, Veronika SOJKOVÁ, University of West Bohemia Czech Republic: Facility Management of Smart Buildings

11:15-11:30: Ondřej ŠIKULA, Omar LADJEDEL, Pavel CHARVÁT, Lahouari ADJLOUT, Sid Ahmed REFFAS: Brno University of Technology, Czech Republic: Influence of heating elements dynamics on energy savings

11:30-11:45: Agnes IRINGOVA, University of Žilina, Slovakia: Design of a residential building in confined urban spaces in terms of daylighting optimization and insolation of flats – a case study

11:45-12:00: Jozef HRASKA, Slovak University of Technology, Slovakia: Adaptive solar shading of buildings

12:00 – Lunch