

Technical University of Košice, Faculty of Civil Engineering

14th International Scientific Conference

Civil and Environmental Engineering



27th-29th June 2022,
Čingov, Slovak Paradise, Slovakia

Monday, June 27th, 2022

10.00 – 12.00	<i>Registration</i>
12.00 – 14.00	<i>Lunch time</i>
Chairs:	Congress hall Dušan Katunský – Ivo Demjan – Alena Vargová
14.00 – 15.00	<i>Sponsors presentation – DOKA, Allplan</i>
15.00 – 15.30	<i>Coffee break</i>
15.30-15.40	Tomáš Žajdlík, Karel Šuhajda Fire resistance testing of timber structure elements
15.40-15.50	Štefan Krištofič Implementation of electric construction vehicles and machinery
15.50-16.00	Dominik Lisztwan, Petr Nápravník, Petr Žitň, Jaromír Láník, Petr Daněk Evaluation of the bowstring concrete bridge behavior using full-scale load testing
16.00-16.10	Ondřej Porwisz, Martin Mohapl, Jan Jílek Analysys of green roof reconstruction with recycled materials, ONLINE
16.10-16.20	Borna Dasović, Uroš Klanšek Spreadsheet-based MINLP model for cost-optimal construction project scheduling, ONLINE
16.20-16.30	Marek Šutůš, Andrea Staňová, Réka Wittmanová, Štefan Stanko Trenchless methods for laying piping systems and their use
16.30-16.40	Mária Hlinková Impact of selected factors to flood damages
16.40-16.50	Vorlíčková Petra, Kalousek Miloš Elimination of surface condensation on window glazing and connecting joints
16.50-17.00	Slávka Pobucká, Karel Šuhajda, Milan Ostrý, Klára Kučerová Crawl space of timber structures: analysis of the temperature and moisture conditions, ONLINE
17.00-17.10	Maksim Portnov, Andrea Raczková, Réka Wittmanová, Štefan Stanko Analysis of mathematical modeling of the sewerage network
17.10-17.20	Ivan Vrdoljak Test methods for measuring EM radiation shielding
17.20-17.30	Nika Trubina, Licia Felicioni, Antonín Lupíšek, Martin Volf SBToolCZ new version: analysis of the updated environmental parameters
19.00 – 19.10	<i>Opening of the conference</i> Peter Mésároš, Dean of the Faculty of Civil Engineering
19.10 – 23.00	<i>Welcome party</i>

Tuesday, June 28th, 2022

Chairs:	Congress hall Jozef Švajlenka – Dušan Katunský – Yaroslav Nechyporchuk
8.30-9.00	Dr. Truong Minh Hoang Drainage model of late Pleistocene-Holocene sediments and applying to appropriate ground treatment solutions in Vinh Long – Can Tho area Mekong Delta
9.00-9.10	Daria Klosova, Daria Mokrenko, Mária Kozlovská The last planner system - an innovative planning tool for construction project management
9.10-9.20	Marko Čorak, Mario Galić Review on project scheduling and material ordering problem
9.20-9.30	Kamila Martyniuk-Sienkiewicz, Wojciech Gilewski Load strengthening and weakening of shell-like tensegrity lattices with the use of self-equilibrated normal forces, ONLINE
9.30-9.40	Vigneshkumar Chellappa, Urmi Ravindra Salve Evaluation of SAFEFORM interface design through the cognitive walkthrough
9.40-9.50	Vigneshkumar Chellappa, Peter Mésároš, Matej Špak, Marcela Spišáková, Pavol Kaleja Digital technologies for safety training in construction
9.50-10.00	Eliška Vorlíčková, Vladimír Mózer, Petr Hejtmánek, Daniela Pitelková Fire risks of timber buildings
10.00-10.10	Jan Vystrčil, Ondřej Nespěšný, Karel Šuhajda, David Bečkovský Experimental measurement of dynamic changes in the basis weight of vegetation walls and facades due to evapotranspiration, ONLINE
10.10-10.20	Roman Bulko Geotechnical evaluation of the subsoil by cone penetration test in the village of Podhorie
10.20-10.30	Jakub Veselý, Vít Šmilauer, Petr Pánek Finite element analysis of concrete pavement subjected to thermal loading
10.30-11.00	Coffee break
Chairs:	Congress hall Peter Kapalo – Ivo Demjan – Jana Budajová
11.00-11.10	Matija Zvonarić Influence of binder and rubber amount on mechanical properties of stabilized mixtures
11.10-11.20	Wael Almikaeel, Lea Čubanová Drought analysis using water-bearing coefficient and streamflow drought index—Topľa river case study, ONLINE

11.20-11.30	Vojtěch Bartoň, Jaroslav Šnédar, Petr Cikrle The influence of moisture on the compressive strength of brickwork
11.30-11.40	Miriama Hološová, Adriana Eštoková, Natália Junáková Simulation of sulphate attack on the cement composites with cement bypass dust
11.40-11.50	Nikol Prchalová, Petr Blasinski, Veronika Kořenková, Dominik Cakl Optimization of pool hall air conditioning
11.50-12.00	Dominik Cakl, Kořenková Veronika, Nikol Prchalová, Aleš Rubina Development of airflow efficiency in air conditioning units
12.00-12.10	Kostiantyn Sokolchuk, Marek Sokáč Applying methods of spatial interpolation to hydrological data on example of the Pripjat river basin within Ukraine, ONLINE
12.10-12.20	Patrik Nagy Assesment of the hydrological regime of the Hnilec river basin
12.10-14.00	<i>Lunch time</i>
14.00-15.30	<i>Poster section</i>
1.	Agnieszka Żelazna The influence of the type of heat exchanger on the environmental and economic efficiency of brine-to-water heat pump
2.	Marta Bis Cost and profitability analysis of natural gas dehydration installations
3.	Monika Domsitzova, Roland Schneider Application of project management tools in early planning phases to optimize the impact on quality, cost, and time: a case study, ONLINE
4.	Světlana Moravčíková, Renata Biela Comparison of GEH and Bayoxide E33 Adsorbents in the Removal of Selected Metals from Water, ONLINE
5.	Réka Wittmanová, Marek Šutůš, Jaroslav Hrudka, Ivona Škultétyová Life cycle assessment of urban stormwater management approaches: A review, ONLINE
6.	Daniela Pítelková, Petr Hejtmánek, Vladimír Mózer, Eliška Vorlíčková Degradation of a OSB exposed to the critical heat flux for determination of fire separation distances, ONLINE
7.	Pavol Kajánek, Ján Brindza, Alojz Kopáček, Ján Erdélyi, Peter Kyrinovič 3D mapping system based on a fusion of 2D lidars, ONLINE
8.	Petr Trtílek, Tomáš Hanák Connecting performance measurement systems with risk management
9.	Yoana Svetoslavova Tsarovska Application of object-oriented image classification in urban areas, ONLINE
15.30-16:00	<i>Coffee break</i>

Chairs:	Congress hall Vojtech Václavík – Kamila Kotrasová – Mária Hlinková
16.00-16.10	Elvira Hodovanets, Mohamad Al Ali, Vincent Kvočák Cold formed thin-walled sections experimental program – Theoretical analysis of resilience
16.10-16.20	Beáta Fleischerová, Jan Eliáš Development of discrete model for dynamic simulations of concrete behavior
16.20-16.30	Kristýna Hrabovská Theoretical research of the influence of changes in input parameters on load-bearing capacity and quantity of shear coupling
16.30-16.40	Natália Gregušová, Jaroslav Halvonik The maximum punching resistance of the flat slabs, ONLINE
16.40-16.50	Martin Jonáš, Jan Zatloukal Diagnostic survey of prestressing tendons in the girders of the bridge no. 225-008
16.50-17.00	Jakub Bartuš, Jaroslav Odrobiňák On FE modeling techniques of concrete in steel and concrete composite members
17.00-17.10	Daniel Beutelhauser, Michal Venglár, Richard Hontiöl Case study - System identification of an old reinforced concrete bridge, ONLINE
17.10-17.20	Michaela Weissová, Daniel Dubecký, Vincent Kvočák Material characteristics of glass-fiber reinforced polymers
17.20-17.30	Kristina Kaniková, Josip Klem, Alžběta Danková Aerodynamics of the double-skin transparent façades in the summer and winter period
17.30-17.40	Jan Pěnčík, Ondřej Nespěšný, Jan Vystrčil, David Bečkovský Design of the experimental stand for testing railing panels made from cement fibre boards
17.40-18.00	<i>Closing of the conference</i>

Wednesday, June 29th, 2022

<i>Chairs:</i>	<i>Congress hall</i> <i>Lenka Štulerová</i>
10.00-10.10	Alena Vargová, Marián Vertal' From the wetland to the wetland roof
10.10-10.20	Jana Budajová, Silvia Vilčeková, Peter Mésároš Linking carbon footprint and circular economy? Case study of an apartment building
10.20-10.30	Renára Bašková, Yaroslav Nechyporchuk Place of schedule in the BIM Execution Plan
10.30-12.00	<i>Discussion</i>
12.00-14.00	<i>Lunch time</i>