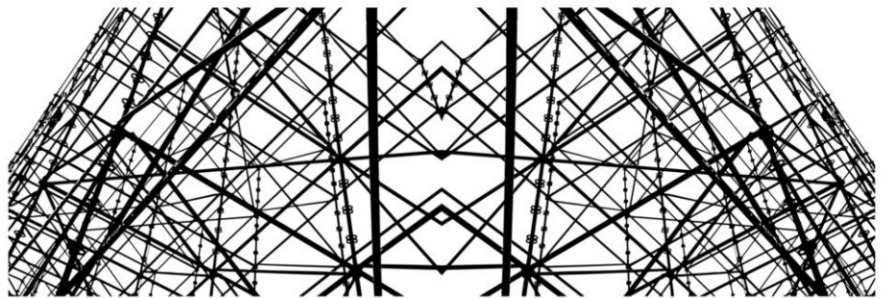


TECHNICAL UNIVERSITY OF KOŠICE
FACULTY OF CIVIL ENGINEERING

CIVIL ENGINEERING CONFERENCE

**THE 45TH ANNIVERSARY OF THE ESTABLISHMENT OF THE FACULTY
OF CIVIL ENGINEERING**



THE **45th** ANNIVERSARY OF THE ESTABLISHMENT OF THE FACULTY OF CIVIL ENGINEERING

June 7-8, 2022
Košice
Slovakia

Program:

Tuesday, June 7, 2022

University Library, Němcovej 7

09.00 – 12.00	REGISTRATION
12.00 – 13.00	LUNCH TIME
13.00 – 13.10	Opening of Conference by <i>Peter Mésároš</i>
chairs DUŠAN KATUNSKÝ	LECTURE SESSION
13.10 – 13.30	<i>Pavol Kováčik</i>
13.30 – 14.00	<i>Vsevolod Nikolaiev</i>
14.00 – 14.20	<i>Mária Kozlovská</i>
14.40 – 15.00	<i>Károli Jármai</i>
15.00 – 15.20	<i>Tibor Schlosser</i>
15.20 – 15.40	<i>Matjaz Nekrep</i>
	COFFEE BREAK
16.00 – 16.20	<i>Karel Kabele</i>
16.20 – 16.40	<i>Viktória Sugár</i>
16.40 – 17.00	<i>Boris Bielek</i>
17.00 – 17.20	<i>Martin Kováč</i>
17.20 – 17.40	<i>Hany Farhat</i>
17.40 – 18.00	<i>Silvia Vilčeková</i>
18.00	SOCIAL EVENING

Wednesday, June 8, 2022

Faculty of Civil Engineering, Vysokoškolská 4

08.30 – 09.45	SPONSORS PRESENTATIONS
	COFFEE BREAK
	POSTER SECTION
10.00 – 10.02	<i>E Luzay, D Shafieva, M Zeleňáková</i> RENOVATION OF DORMITORY CAMPUS USING THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT
10.02 – 10.04	<i>K Kotrasova, E Kormanikova, M Loukili, S Mansour, D Foti</i> THE SEISMIC RESPONSE OF CYLINDRICAL STEEL TANK AT AL HOCEÏMA IN MOROCCO
10.04 – 10.06	<i>M Vertal, Z Vranayova, K Cakyova, A Vargova, F Vranay</i> GRADUAL TRANSFORMATION OF AN ADMINISTRATIVE BUILDING INTO A GREEN STRUCTURE
10.06 – 10.08	<i>D Kalús, D Koudelková, J Čurpek, V Mučková</i> RESEARCH OF COMBINED BUILDING-ENERGY SYSTEMS
10.08 – 10.10	<i>I Štimac Grandić, J Drobac, N Bede, I Ružić</i> STABILITY OF TRAVERTINE BARRIER ON MILINO LAKE
10.10 – 10.12	<i>R Vodička</i> APPLICATIONS OF A PHASE-FIELD FRACTURE MODEL TO MATERIALS WITH INCLUSIONS
10.12 – 10.14	<i>P A Król</i> PRACTICAL DEFLECTION ANALYSIS OF TUBULAR TELECOMUNICATION TOWERS SUBJECTED TO A TEMPERATURE GRADIENT
10.14 – 10.16	<i>J Melcer, V Valašková</i> MOVING LOAD EFFECT ON BRIDGE

10.16 – 10.18	<i>V Karľa, V Bajzecerová, J Kanócz</i> POTENTIAL USE OF TRANSPARENT WOOD IN SPATIAL FOLDED STRUCTURES
10.18 – 10.20	<i>H Šimonová, B. Kucharczyková, B Poletanovic, I Merta, Z Keršner</i> MECHANICAL FRACTURE PARAMETERS OF HEMP FIBRE REINFORCED CEMENT-BASED COMPOSITES WITH RECYCLED AGGREGATE
10.20 – 10.22	<i>E Dolnikova, D Katunsky, M Lopusniak</i> EVALUATION OF DAYLIGHT COMFORT IN INDUSTRIAL BUILDING
10.22 – 10.24	<i>P Jaroš, M Vertal'</i> WATER VAPOR TRANSMISSION PARAMETERS OF THE KEŽMAROK SANDSTONE
10.24 – 10.26	<i>J Švajlenka, M Kozlovská</i> SURVEY OF CONSUMER PREFERENCES IN THE FIELD OF WOODEN BUILDINGS
10.26 – 10.28	<i>K Kuliński</i> DIFFERENT WAYS OF MECHANICAL WAVE PROPAGATION DAMPING IN ACKERMAN CEILINGS USING RECYCLED RUBBER
10.28 - 10.30	<i>J Moreno-Puchalt, A Almerich-Chulia, X Laumain</i> DIGITAL PRESERVATION OF THE JESUITAS CHURCH IN VALENCIA (SPAIN) USING 3D LASER SCANNING
10.30 – 10.32	<i>P Kapalo, A Eštoková, O Voznyak</i> THE CARBON DIOXIDE GENERATION RATE FROM BURNING OF CANDLE AND ITS EFFECT ON ROOM VENTILATION
10.32 – 10.34	<i>M Gorás, J Domanický, F Vranay</i> LONG TERM ACCUMULATION OF HEAT ENERGY FROM THE SUN
10.34 – 10.36	<i>E Hodovanets, M Al Ali and V Kvocak</i> DEVELOPMENT OF AN ALGORITHM FOR THE CALCULATION OF THIN-WALLED ELEMENTS USING FEM
10.36 – 10.38	<i>M Magura, J Brodniansky</i> LOCAL LOADING OF SANDWICH PANELS - ASSESSMENT ACCORDING TO STANDARDS AND EXPERIMENTAL VERIFICATION
10.38 – 10.40	<i>K Hutkai, D Katunský, M Zozulák</i> INTERNAL INSULATION SYSTEMS AND THEIR ASSESSMENT FOR HISTORIC BUILDINGS BY HYGROTHERMAL SIMULATION

10.40 – 10.42	<i>G Bou Abdallah, I Ivanova, J Assih, C Diagana, D Dontchev</i> EXPERIMENTAL STUDY OF THE MECHANICAL BEHAVIOR OF STRENGTHENED REINFORCED CONCRETE BEAMS
10.42 – 10.44	<i>A Tazikova, Z Strukova, J Cabala</i> TIME-SPACE MODELLING OF CONSTRUCTION
10.44 – 10.46	<i>R Flajs</i> THE INFLUENCE OF INCLUSIVE DEFORMATION MAPPING ON THE KINEMATIC EQUATIONS OF NONLINEAR ELASTICITY
10.46 – 10.48	<i>B Bošanská, M Minárová, K Tvrďá</i> ELASTIC EXPLORING OF HUMAN LUNG PARENCHYMA
10.48 – 10.50	<i>M Minárová, K Tvrďá</i> THERMODYNAMIC ASPECTS OF VISCOELASTIC MATERIALS' LINEAR AND NONLINEAR BEHAVIOUR
10.50 – 10.52	<i>M Kozlovská, D Mokrenko, Z Struková, M Špak</i> THE POTENTIAL OF LIGHTWEIGHT PANEL SYSTEMS IN BUILDING INDUSTRY
10.52 – 10.54	<i>L Kapolka, L Štulerová</i> NUMERICAL ANALYSIS OF ASYMMETRIC USE OF ACTUATORS TO MEMBRANE STRUCTURE LOADED BY STRUCTURAL LOAD
10.54 – 10.56	<i>J Čabala, M Kozlovská, Z Struková, A Tažiková</i> BENEFITS OF BIM MODELS AND MIXED REALITY IN THE IMPLEMENTATION PHASE OF CONSTRUCTION PROJECTS
10.56 – 10.58	<i>M Spišáková, J Galla, T Mandičák</i> CONSTRUCTION SEGMENTS APPLYING MODERN METHODS OF CONSTRUCTION IN SLOVAKIA
10.58 – 11.00	<i>Z Struková, M Kozlovská, A Tažiková, J Čabala</i> THE POSSIBILITIES OF USING DIGITAL TWIN TECHNOLOGY IN THE LIFE CYCLE OF BUILDINGS
11.00 – 11.02	<i>A Sedlakova, V Merjava, S Vilcekova, M Gmitter, D Burak</i> ANALYSIS OF ALTERNATIVE DESIGNS FOR THE RECONSTRUCTION OF AN ADMINISTRATIVE BUILDING – CASE STUDY
11.02 – 11.04	<i>M Hološová, A Ešťoková, A Luptáková</i> STUDYING THE POTENTIAL MICROBIAL RISK OF CONSTRUCTION CEMENTITIOUS MATERIALS IN THE URBAN ENVIRONMENT

11.04 – 11.06	<i>A Sicakova</i> METHODS OF STRENGTHENING THE GRAINS OF RECYCLED AGGREGATES
11.06 – 11.08	<i>D Hodakova, A Zuzulova, S Capayova</i> CLIMATE CHANGE ADAPTATION IN PAVEMENT DESIGN
11.08 – 11.10	<i>A Kanalikova, P Purcz</i> SURVEY OF KNOWLEDGE OF FIRST-YEAR STUDENTS OF THE FACULTY OF CIVIL ENGINEERING OF THE TECHNICAL UNIVERSITY IN KOŠICE FROM HIGH SCHOOL MATHEMATICS
11.10 – 11.12	<i>I Demjan, M Tomko</i> DYNAMIC RESPONSE OF BUILDING ON THE BASIS OF THEORETICAL AND EXPERIMENTAL APPROACHES
11.12 – 11.14	<i>M Mojto, J Brodnianský, J Brodnianský</i> THE EFFECT OF MANUFACTURING IMPERFECTIONS IN THE SLIP JOINTS
11.14 – 11.16	<i>M Tomko, I Demjan</i> PLASTIC ZONES IN THE PIN CONNECTION OF THE LAMINATED LATTICE GIRDER
11.16 – 11.18	<i>T Schlosser, P Schlosser, M Korfant, G Bálint, J Takács</i> TRANSIT SMART SOLUTION FOR BRATISLAVA – EXAMPLE OF TRAMWAY NETWORK DEVELOPMENT
11.18 – 11.20	<i>N Junakova, J Junak, M Balintova</i> THE EFFECT OF PHYSICO-CHEMICAL PROPERTIES OF BOTTOM SEDIMENTS ON NITROGEN AND PHOSPHORUS SORPTION
11.20 – 11.22	<i>M Kozlovská, D Klosova</i> INFLUENCE OF TAKT TIME PLANNING ON CONSTRUCTION EFFICIENCY
11.22 – 11.24	<i>P Hanuliak, P Hartman</i> DOSIMETRIC MEASUREMENT OF LIGHTING CONDITIONS IN OFFICE ENVIRONMENT
11.24 – 11.26	<i>J Hraška</i> NONVISUAL ASPECTS OF DAYLIGHT IN THE BUILT ENVIRONMENT
11.26 – 11.28	<i>V Sugár, Zs Fáczányi</i> Renewable energy in a dense urban fabric: solar gain estimation in the case of a turn of the century district

11.28 – 11.30	<i>I Ivanchev</i> EXPERIMENTAL DETERMINATION OF DYNAMIC MODULUS OF ELASTICITY OF CONCRETE WITH ULTRASONIC PULSE VELOCITY METHOD AND ULTRASONIC PULSE ECHO METHOD
11.30 – 11.32	<i>I Ivanchev</i> ASSESSMENT OF IN-SITU COMPRESSIVE STRENGTH OF CONCRETE IN RC STRUCTURES BY DESTRUCTIVE AND NON-DESTRUCTIVE METHODS
11.30 – 11.32	<i>Sz Nagy, K Jármai, A Baksa</i> OPTIMISATION OF A TUBULAR TRUSS TOWER
11.32 – 11.34	<i>T Mandicak, P Mesaros, M Spisakova, A Kanalikova</i> EXPLOITATION OF DOCUMENT MANAGEMENT SYSTEMS IN CONSTRUCTION INDUSTRY
11.34 – 11.36	<i>D Katunský, E Dolníková, M Lopušniak, M Vertal, T Baroš, K Hutkai, P Jaroš, L Kabošová, J Katunská, V Karla, M Zozulák</i> DESIGN AND EVALUATION OF BUILDING STRUCTURES PLANNED FOR HARSH CONDITIONS
11.36 – 11.38	<i>M Hirohata, K Jármai</i> AN INVESTIGATION ON COMBINED SECTION BY STEELS WITH DIFFERENT STRENGTHS FOR BRIDGE GIRDER
11.38 – 11.40	<i>B Safaei, Z Pezeshki, K Kotrasova, E Kormanikova</i> ANALYSIS OF STRESS CONCENTRATION AT THE EDGE OF HOLE IN PLATES WITH DIFFERENT WIDTHS BY USING FEM
11.40 – 11.42	<i>J Liu, K Ojima, F Jiang, M Hirohata, T Nakayama, T Sakamoto</i> CORROSION ACCELERATION TEST ON WEATHERING STEEL AND PAINT-COATED STEEL FOR BRIDGE STRUCTURAL MEMBERS
11.42 – 11.44	<i>V V Tur, V H Sannikava</i> EARLY-AGE STRAINS AND STRESSES IN BI-AXIALLY RESTRAINED EXPANSIVE CONCRETE ELEMENTS
11.44 – 11.46	<i>E Panulinova, S Harabinova</i> QUANTIFICATION OF ACOUSTIC RISK FROM THE TRAM RIDE IN TRACK CURVES
11.46 – 11.48	<i>F Jiang, M Hirohata</i> NUMERICAL SIMULATIONS FOR TIME-DEPENDENT CORROSION SURFACE OF UNPAINTED STRUCTURAL STEEL PLATES USING SPATIO-TEMPORAL DATA

12.12 – 12.14	<i>I Sococol, T C Petrescu, P Mihai, D T Babor</i> INFLUENCE OF THE LONGITUDINAL STEEL RATION IN RC BEAMS AND STEEL REINFORCEMENT RATION IN RC SLABS ON THE SEISMIC ENERGY DISSIPATION MECHANISMS FOR A MR RC FRAME STRUCTURE
12.14 – 12.16	<i>A Ešťoková, P Kapalo</i> INVESTIGATION OF THE THERMAL PROPERTIES OF CANDLE WAX MATERIAL
12.16 – 12.18	<i>L Stulerova, L Kapolka, S Kmet</i> NATURAL VIBRATION OF A MEMBRANE HYPAR IN A STEEL FRAME
12.18 – 12.20	<i>E Kridlova Burdova, S Vilcekova</i> ANALYSIS OF BUILDING MATERIALS USED FOR THE CONSTRUCTION OF FAMILY HOUSES IN THE BOUNDARIES FROM CRADLE TO GATE WITH OPTIONS
12.20 – 12.22	<i>Z Blichova, S Vilcekova, E Kridlova Burdova, D Katunský</i> LIFE CYCLE ASSESSMENT OF RESIDENTIAL BUILDINGS AND SCENARIOS FOR PROLONGED LIFE SPAN
12.24 – 12.26	<i>B Bielek, D Szabo, J Klem</i> NEW TEST EQUIPMENT FOR TESTING THE WATERTIGHTNESS OF FAÇADE STRUCTURES IN-SITU
12.28 – 12.30	<i>N A Labutin, A V Benin, L K Diachenko</i> EXPERIMENTAL VERIFICATION OF A SIMULATION MODEL OF HIGH-SPEED TRAIN AERODYNAMIC IMPACT ON RAILWAY INFRASTRUCTURE
12.30 – 12.32	<i>N Števíulova, J Junak, J Strigac, N Junakova</i> RECYCLING CEMENT BYPASS DUST AND GRANULATED BLAST FURNACE SLAG INTO HYDRAULIC ROAD BINDER
12.32 – 12.34	<i>R Kovács, Ľ Polakovič, A Czímerová, J Mandula</i> PRODUCTION OF POLYMER-MODIFIED-ASPHALT MIXTURE AS AN ALTERNATIVE METHOD TO THE CONVENTIONAL POLYMER-MODIFIED-BITUMEN MIXTURES
12.34 – 12.36	<i>J Smetanková, P Mésároš, K Krajníková, V Bielek</i> USE OF BUILDING INFORMATION MODELLING (BIM) IN PLANNING AND MANAGING THE LIFE CYCLE OF BUILDINGS
12.36 – 12.38	<i>T Baroš, L Kabošová, M Baroš, D Katunský</i> EXPERIMENTAL FORM-FINDING: A REVIEW

12.38 – 12.40	<i>P Kapalo, M Kováč, R Nagy, Z Baka</i> INDOOR AIR QUALITY ASSESSMENT IN THE APARTMENT – CASE STUDY
12.40 – 12.42	<i>J Vojtuš</i> RENEWAL OF THE ROOF STRUCTURE OF THE WINTER STADIUM IN PREŠOV
12.42 – 12.44	<i>M Hlinková, M Zeleňáková, H Abd-Elhamid</i> COMPARISON BETWEEN FLOOD DAMAGES EVALUATION METHODS AND SELECTION OF THE APPROPRIATE METHOD FOR APPLICATION IN SLOVAKIA
12.44 – 12.46	<i>P Nagy, M Zeleňáková, M Hlinková</i> OVERVIEW OF METEOROLOGICAL AND HYDROLOGICAL CONDITIONS IN THE HORNÁD RIVER BASIN
12.46 – 12.48	<i>R Wittmanová, I Makro, J Hrudka, M Šutůš, Š Stanko</i> MODELLING OF STORMWATER RUNOFF AND WASTEWATER FLOW IN THE SEWER NETWORK
12.48 – 12.50	<i>I Marko, R Wittmanová, J Hrudka, A Raczková, I Škultétyová</i> QUALITY OF FIRST FLUSH OF RAINWATER FROM URBAN AREA: SHORT REVIEW
12.50 – 12.52	<i>J Hrudka, I Marko, R Wittmanová, G Rózsa, Š Stanko</i> POSSIBILITIES OF USING SCREENS IN COMBINED SEWER OVERFLOW CHAMBERS
12.52 – 12.54	<i>H Abd-Elhamid, M Zeleňáková,</i> ASSESSMENT AND ADAPTATION TO CLIMATE CHANGE AND SEA LEVEL RISE IMPACTS ON EGYPT'S NORTHERN COASTS
12.54 – 12.56	<i>A Boháček, J Šlanhof, A Průcha</i> RESISTANCE OF A SEALED JOINT SUBJECTED TO TENSILE STRESS AT DIFFERENT TEMPERATURES
12.56 – 12.58	<i>P Fošumpaur</i> Effects of Hydro Power Plant Releases on Navigation Conditions in the Lower Lock Approach
12.58 – 13.00	<i>T Kašpar</i> ANALYTICAL DETERMINATION OF LONGITUDINAL FORCES ON THE VESSELS DURING FILLING OF THE NAVIGATION LOCK

12.12 – 12.14	<i>I Sococol, T C Petrescu, P Mihai, D T Babor</i> INFLUENCE OF THE LONGITUDINAL STEEL RATION IN RC BEAMS AND STEEL REINFORCEMENT RATION IN RC SLABS ON THE SEISMIC ENERGY DISSIPATION MECHANISMS FOR A MR RC FRAME STRUCTURE
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12.30 – 12.32 /74	<i>N Stevulova, J Junak, J Strigac, N Junakova</i> RECYCLING CEMENT BYPASS DUST AND GRANULATED BLAST FURNACE SLAG INTO HYDRAULIC ROAD BINDER
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12.36 – 12.38	<i>T Baroš, L Kabošová, M Baroš, D Katunský</i> EXPERIMENTAL FORM-FINDING: A REVIEW

13.00 – 13.02	<p><i>A Bisták, Z Hulínová, I Vavřík, P Šťastný</i></p> <p>AERIAL WORK WITH HELICOPTERS IN THE CONSTRUCTION OF CABLEWAYS AND THEIR IMPACT ON THE CONCRETE MIXTURE DESIGN</p>
13.02 – 13.04	<p><i>M Gomboš, D Pavelkova, B Kandra, A Tall</i></p> <p>QUANTIFICATION OF TEMPORAL AND SPATIAL CHANGES IN SOIL SUSPENSION DENSITY, SPECIFIC SURFACE AREA AND PARAMETERS OF THE DISTRIBUTION OF THE TEXTURE OF THE DISPERSED SOIL PHASE</p>
13.04 – 13.06	<p><i>S Pagac</i></p> <p>ECONOMIC EFFICIENCY: YIELD ON COST AS CORE TOOL OF BENCHMARKING</p>
13.06 – 13.08	<p><i>C Vigneshkumar, P Mésároš, M Špak, M Spišáková, P Kaleja</i></p> <p>VR-BASED SAFETY TRAINING RESEARCH IN CONSTRUCTION</p>
13.00	LUNCH TIME
15.00 – 17.00	EXCURSION OF KOŠICE CITY

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