

8. DOCTORAL SYMPOSIUM IN CIVIL ENGINEERING

September 5 – 6, 2022., Zagreb

Organizer: University of Zagreb Faculty of Civil Engineering

SYMPOSIUM PROGRAM

DAY 1 - MONDAY, September 5, 2022

08.00 – 09.00	PARTICIPANT REGISTRATION, Hall 121
09.00 – 09.15	OPENING CEREMONY, Hall 121
I Session 9.15 – 11.00	Chairperson: prof. Mario Bačić & prof. Dalibor Carević (Hall 121)
9.15 – 9.40	prof. Iva Kovačić Digital Material Cadaster as a fundament of Circular City
9.40 – 10.00	Jurica Pajan, prof. Ivan Duvnjak Possibilities of unmanned aerial vehicles for bridge inspection and monitoring
10.00 – 10.20	Hanna Miličević, prof. Dalibor Carević, Damjan Bujak, PhD Efficiency of shoreline detection by video monitoring systems – the example of Ploče beach in Rijeka
10.20 – 10.40	Krešimir Burnać, prof. Ivo Haladin An overview of methods for determining the impact of vibrations from tramway vehicles on nearby buildings
10.40 – 11.00	Anesa Merdan, prof. Mario Bačić Analysis of the influence of geogrids on the failure mechanisms of the shallow foundations
Coffee break: 11.00 – 11.30	
II Session 11.30 – 12.50	Chairperson: prof. Davor Skejić & prof. Ivan Lukačević (Hall 121)
11.30 – 11.50	prof. Domagoj Nakić Doctoral study experiences and application of acquired knowledge for combined work in industry and academia
11.50 – 12.10	Anđelo Valčić, prof. Davor Skejić A research review on aluminium beam-to-column joints
12.10 – 12.30	Andrea Rajić, prof. Ivan Lukačević Analyses of LWT-FLOOR system bending resistance
12.30 – 12.50	Vlaho Žuvelek, prof. Ivan Čurković Numerical study of shear connection in cold-formed steel-concrete composite beam
Lunch break: 12.50 – 14.00	
III Session 14.00 – 16.00	Chairperson: prof. Ivan Gabrijel & prof. Ana Baričević (Hall 121)
14.00 – 14.20	Antonija Ocelić, prof. Ana Baričević Influence of cement replacement by metakaolin and limestone filler on the properties of UHPC
14.20 – 14.40	Katarina Didulica, prof. Ana Baričević On the relation of microstructure development and time- zero as the beginning of autogenous shrinkage
14.40 – 15.00	Branka Mrduljaš, prof. Ana Baričević Durability of synthetic fibers in cement composites
15.00 – 15.20	Sonja Cerković, prof. Nina Štirmer Possibilities of using wood biomass ash as a partial replacement of fine aggregate in precast concrete
15.20 – 15.40	Dora Kolman, prof. Ivan Gabrijel Influence of airborne chlorides on concrete durability in the marine environment
15.40 – 16.00	Petra Štefanec, prof. Ivan Gabrijel The influence of particle packing density optimization on the reduction of the amount of Portland cement in concrete

DAY 2 – TUESDAY, September 6, 2022.	
IV Session 9.00 – 10.20	Chairperson: prof. Vesna Dragčević & prof. Ivica Završki (Hall 121)
9.00 – 9.20	Sonja Kolarić, PhD Experience in preparing a doctoral dissertation Standardized structure of Building Information Model for Enterprise Resources Planning in contractor construction companies
9.20 – 9.40	Boris Uremović, prof. Ivica Završki Parametric modelling using mathematical functions
9.40 – 10.00	Ana Čudina Ivančev, prof. Vesna Dragčević The influence of autonomous vehicles on the selection of highway design elements
10.00 – 10.20	Olivera Bukvić, prof. Marijana Serdar (ONLINE PRESENTATION) Freeze-thaw resistance with de-icing salts of alkali-activated slag concrete: the influence of activator type and dosage and comparison to the ordinary Portland cement concrete
Coffee break: 10.20 – 11.00	
V Session 11.00 – 13.00	Chairperson: prof. Mario Uroš & prof. Mislav Stepinac (Hall 121)
11.00 – 11.20	Antonela Moretić, prof. Mislav Stepinac Vulnerability assessment of building aggregates – macroseismic and analytical approach
11.20 – 11.40	Karlo Ožić, prof. Mislav Stepinac, Anthony Ninčević Use of visual programming in seismic assessment of masonry buildings according to normatively prescribed criteria of construction regularity
11.40 – 12.00	Maja Mrkonjić, prof. Josip Atalić Seismic performance assessment of traditional unreinforced masonry buildings in aggregates: the case of a modern building built in the place of the old one
12.00 – 12.20	Jakov Oreb, prof. Josip Atalić (ONLINE PRESENTATION) State of the art of the masonry building aggregates and retrofit strategies with emphasis on the City of Zagreb
12.00 – 12.40	Ante Pilipović, prof. Mario Uroš (ONLINE PRESENTATION) Selection of optimal intensity measure for a typical masonry building in the urban area of Zagreb
12.40 – 13.00	Romano Jevtić Rundek, prof. Mario Uroš (ONLINE PRESENTATION) Processing and interpretation of complex dynamic numerical analysis
Lunch break: 13.00 – 14.00	
VI Session 14.00 – 16.00	Presentation of additional education and training in 2021/2022 Chairperson: prof. Mladen Vukomanović & prof. Ivan Halkijević (Hall 121)
14.00 – 14.15	Ksenija Tešić Training at the University in Paris in the application of ground penetrating radar in the testing of reinforced concrete structures
14.15 – 14.30	Karlo Ožić Supplementary education and professional development: 3rd INFRASTAR Training school, Nantes, France
14.30 – 14.45	Ivan Hafner, Luka Lulić Supplementary education and professional development: 3rd INSPIRE Training School, Athens
14.45 – 15.00	Maja Baniček Sharing experiences from the training course “Introduction to fe-safe” and application to scientific work
15.00 – 15.15	Ivo Haladin HARMOTRACK project workshop
15.15 – 15.30	Suzana Ereiz Training in the development of an optimization algorithm for the finite element model updating of bridge structures
15.30 – 15.45	prof. Ivan Halkijević, Katarina Licht Introduction to COMSOL Multiphysics
15.45 – 16.00	Robert Fliszar Training in the field of laboratory measurements applicable in hydraulic engineering

Note for lecturers: Time for presentation includes 5 minutes for questions and answers.