













# CONFERENCE PROGRAM

APRIL 25 - 27, 2024



ISCCE 2024 International Students Conference of Civil Engineering











# $2^{\text{ND}}$ INTERNATIONAL STUDENT CONFERENCE OF CIVIL ENGINEERING, ISCCE 2024

Day 1: Thursday, April 25<sup>1</sup>

Location: The Faculty of Civil Engineering, Prishtina, Kosovo

Time	Activity	Location
8:30 – 9:30	Registration for Opening Ceremony	FCE Reception Desk
9:30 – 10:30	OPENING CEREMONY	FCE Hall
	Panel: Prof. Ass. Florim Grajçevci, Prof. Dr. Neritan Shkodrani, Prof. Dr. Qerim Qerimi, Prof. Dr. Andrea Maliqari	
10:30 – 10:45	COFFEE BREAK	International Corner FCE
10:45 – 11:30	Prof. Alper Ilki – Keynote Speaker	FCE Hall
	Panel: Prof. Dr. Naser Kabashi, Prof. Dr. Oltion Marko	
11:30 – 12:15	Prof. Georg Gartner – Keynote Speaker	FCE Hall
	Panel: Prof. Përparim Ameti, Prof. Konalsi Gjoka	
12:15 – 12:30	COFFEE BREAK	International Corner FCE
12:30 – 13:15	Prof. Enkelejda Gjinali – Keynote Speaker	FCE Hall
	Panel: Prof. Laura Kusari, Prof. Alfred Lako	
13:15 – 14:15	LUNCH	International Corner FCE

<sup>&</sup>lt;sup>1</sup> Posters will be displayed throughout the entire conference, starting on April 25<sup>th</sup>. For a list of Posters, see the end of this Program.













14:15 – 15:00	Prof. Agathe Robisson – Keynote Speaker	FCE Hall
	Panel: Prof. Figene Ahmedi, Prof. Entela Çobani	
15:00 – 15:45	Prof. Karel Pavelka – Keynote Speaker	FCE Hall
	Panel: Prof. Besim Ajvazi, Prof. Namik Kopliku	
15:45 – 16:45	Presentations (NPB Prishtina, FARO, ANGST, S.W.O.T., Penetron, ArcelorMittal)	FCE Hall
	Panel: Prof. Esat Gashi, Prof. Freskida Abazaj	
16:45 – 20:00	FREE TIME	
20:00 - 00:00	WELCOME DINNER (GALA DINNER)	Venus Hotel

Day 2: Friday, April 26

## Location: The Faculty of Civil Engineering, Prishtina, Kosovo

Time	Activity	Location
9:00 – 9:45	Prof. Klaudia Anna Borowiak – Keynote Speaker	408
	Panel: Prof. Lavdim Osmanaj, Prof. Andrin Kerpaci	
9:45 – 10:30	Prof. Kemal Edip – Keynote Speaker	408
	Panel: Prof. Cenë Krasniqi, Prof. Arian Lako	
10:30 – 10:45	Scholarship Ceremony – Nexhmedin Kusari Foundation	408
10:45 - 11:00	COFFEE BREAK	International Corner FCE
11:00 - 11:30	Monica Patricia Santamaria Ariza - Speaker	408
	Panel: Prof. Arton Dautaj, Prof. Enio Deneko	













11:30 – 11:45	Karl Gega Vocational School Presentation  "Professional education, future challenges" – Agentina Lufi	408
Time	PARALLEL SESSIONS	Location
12:00 – 16:00	Session 1 <sup>2</sup>	Room 408
12:00 – 16:30	Session 2	Room 411
12:00 – 16:00	Session 3	Room 414
12:00 – 16:00	Session 4	Room 415
13:00 – 14:00	LUNCH	International Corner FCE
16:00 – 16:30	COFFEE BREAK	International Corner FCE
16.20 16.45	CY OCHNO CERRIMONY	400
16:30 – 16:45	CLOSING CEREMONY	408
17:00 – 20:00	FREE TIME	
20:00 - 00:00	STUDENT WELCOME PARTY	Gërmia Park Amphitheater

## **SESSIONS AND TOPICS**

Time	PARALLEL SESSIONS	Authors
12:00 – 16:00	Session 1 – Room 408	
	Structural and Earthquake Engineering & Transportation Engineering	

<sup>&</sup>lt;sup>2</sup> See next page for details.













Panel: Fidan Salihu, Anita Gjukaj, and Iralda Xhaferaj		
12:00 – 12:10	The behavior of flat slabs reinforced concrete structures with different floors, in seismic areas	Granit Limani, Armend Mujaj, Valon Veseli
12:10 – 12:20	Analysis of Structure Response in the Case of Superstructures Case Study: Superstructure of the Technical Faculties Building	Ylli Murati, Armend Mujaj, Enes Krasniqi
12:20 – 12:30	The Chronology and Post Fire Effects on General Medicine Hospital Building, Tirana University Hospital Center	Nertila Kongjoni, Neritan Shkodrani
12:30 – 12:40	Experimental and Theoretical Investigation into the Behavior of a Reinforced Concrete Beam with Conventional Steel  Bars	Butrint Kryeziu, Armend Mujaj, Alban Demiraj, Arton Demiraj
12:40 – 12:50	Different additional effects appearing from the structural construction stage.	Egzon Ahmaxhekaj, Armend Mujaj, Anita Gjukaj
12:50 – 13:00	Designing cylindrical silos according to "Eurocode" European standards	Altina Grajcevci, Armend Mujaj, Labeat Misini
14:00 – 14:10	Evolution of materials movement: A journey through construction transportation innovations	Eneida Meçi, Xhulian Kërkoti
14:10 – 14:20	Reliability analysis of factor of safety in retaining walls reinforced with geogrids or geotextiles.	Klajdi Dyrmishi
	Computational Methods in Civil Engineering	l
	Panel: Hajdar Sadiku, Enes Krasniqi, and Alfred Lako	
14:25 – 14:35	Analysis of Cold-Formed Sections Elements under compression loads: Conventional methods vs Finite Element Approach	Laur Haxhiu, Mirela Balaj, Endrit Vuniqi
14:35 – 14:45	Assessing the Load-Bearing Capacity of Frame Systems and increasing it through the application of FRP Techniques	Albin Shehu, Alban Kadiri, Blendi Krasniqi, Mergim Lajqi
14:45 – 14:55	Comparative Analysis of Displacement in Dual Systems with Shear Walls: Utilizing Finite Element Method, Software's, and Approximate Expression	Fatlind Musa, Armend Mujaj, Albin Shehu, Mergim Lajqi
14:55 – 15:05	Optimization of Dimensional Parameters for Structural Elements in Frame Systems	Alketa Ahmetaj, Vaid Kryeziu, Miftar Alimusaj, Blendi Krasniqi













15:05 – 15:15		Tuana Yilmaz, Hivda Elci, Mehmet Enes Daglioglu,	
	Implementation of Partial Fixities Using Existing Stiffness Equations in Finite Element Models	Andrea Lapa, Murat Yilmaz	
15:15 – 15:25	Analysis of vertical structural elements for varying class of ductility in Dual Systems with Shear Walls: Utilizing seismic design standards, specifically Eurocode 8	Ardijan Shala, Dritan Lajci, Mensur Pali, Alban Kadiri	
15:25 – 15:35	The Debut of Base Isolators in Albania	Alba Rexhaj, Luan Murtaj	
15:35 – 15:45	Comparative Assessment of Glulam Design Methodologies: Finite Element Analysis, Software Tools, and Approximate Formulations	Mirela Balaj, Armend Mujaj, Elsa Alaj, Laur Haxhiu	
15:45 – 15:55	Membrane and Bending Behavior of Plates and Shells using FEM approach focusing on Form Finding Concept	Elsa Alaj, Mirela Balaj, Erona Berisha, Plator Kryeziu	
12:00 – 16:30	Session 2 – Room 411		
	Construction Materials		
	Panel: Milot Muhaxheri, Labeat Misini, and Igli Kondi		
12:00 – 12:10		Toni Bakovic, Agathe	
	Rheological Characterization of Different Clay Minerals for Sustainable Pourable Clay Concrete	Robisson, Philipp Preinstorfer, Teresa Liberto	
12:10 – 12:20	Rheological Characterization of Different Clay Minerals for Sustainable Pourable Clay Concrete  Characterization of Restrained Shrinkage in UHPC-NC Composites Using a Distributed Fiber Optic Sensing System	Robisson, Philipp	
12:10 – 12:20 12:20 – 12:30		Robisson, Philipp Preinstorfer, Teresa Liberto  Dana Daneshvar, Philipp Preinstrofer, Karl Deix, Behrouz Shafei, Agathe Robisson  Muhammad Shahid,	
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	Characterization of Restrained Shrinkage in UHPC-NC Composites Using a Distributed Fiber Optic Sensing System	Robisson, Philipp Preinstorfer, Teresa Liberto  Dana Daneshvar, Philipp Preinstrofer, Karl Deix, Behrouz Shafei, Agathe Robisson  Muhammad Shahid, Bernhard Pichler, Agathe	













12:50 – 13:00	Alkali Silica Reaction and its Impact on the Durability of Concrete	Kledia Mehmeti	
14:00 – 14:10	Improvement of the properties of concrete with fibers addition	Ard Piraj, Sadik Veseli	
14:10 – 14:20	Workability Assessment Methods in Beltic Calcium Sulfoaluminate Concrete Mixtures	Rina Haxhijaj, Laurant Mustafa, Fisnik Tërshana	
14:20 – 14:30	Experimental Analysis of the Structural and Environmental Dynamics of Partial Replacement of Cement with Glass Powder in Concrete	Atdhe Haxhimusa, Vjollca Veseli	
	Geotechnical Engineering		
	Panel: Burbuqe Shatri, Guxim Rrudhani, and Laureta Sharra		
14:35 – 14:45	Enhancing Dam Protection and Stability through Optimized Construction Material Selection in Geotechnical Context.	Ndalesa Hoti, Guxim Rrudhani	
14:45 – 14:55	General limit equilibrium analysis in 2d and 3d of a large landslide in Italian Alps	Renato Gjinaj, Dritan Gjegjaj	
14:55 – 15:05	Evidence of soil liquefaction and impacts on infrastructure following the 2019 earthquake in Albania: A case study in Durres and Lalëzi bays	Alesia Daja	
15:05 – 15:15	Structural and Earthquake Engineering	Arda Karaq, Bledar Morina, Era Bërdynaj, Arianit Bricori, Albesa Bajraktari	
15:15 – 15:25	The importance of engineering measures for the prevention of landslides caused by human activity in the area of Cfaka, Gjirokaster	Elisa Mehmeti	
15:25 – 15:35	A case study on probabilistic evaluation of soil liquefaction	Besmira Bushaj, Ornela Bici, Brunilda Metkaj, Eliota Merollari	
	Construction Technology and Management		
Panel: Esat Gashi, Valon Veseli, and Enio Deneko			
15:40 – 15:50	Time Programming and Cost Control in Construction Projects	Yllka Binaku, Arbër Binaku, Dr. Esat Gashi	
15:50 – 16:00	The silent struggle of mental, physical, and emotional health in the construction industry	Fjona Ferati, Marin Malotaj, Ibiana Muca, Mateo Qyra	













16:00 – 16:10	From Drafting Tables to Digital Models: The Revolution of Civil Engineering in Albania	Boran Minxhozi, Sait Gjoka
16:10 – 16:20	Concrete Saving New Technology U-BOOT SLABS	Aurela Xhelili, Ledi Bello
12:00 – 16:00	Session 3 – Room 414	
	Geodesy, Cartography, Photogrammetry and RS & Geo-Information and NSDI	
	Panel: Ymer Kuka, Almedina Rapuca, and Eduart Blloshmi	
12:00 – 12:10	Types of Mobile Mapping Approaches Compared to Static Terrestrial Scanning	Lukáš Běloch
12:10 – 12:20	Creation of a tourist map using GIS applications for the municipality of Gjakova	Jonida Rafuna, Aroma Sylhasi, Ymer Kuka
12:20 – 12:30	Land coverage and the changes occurred between years 2006 and 2018 - case study Gjakova Municipality	Aroma Sylhasi, Jonida Rafuna, Ymer Kuka
12:30 – 12:40	The use of drones in Construction Engineering	Xhesika Hasa
12:45 – 12:55	Developing and usage of Mobile GIS Applications	Çlirim Podvorica, Bashkim Idrizi
	Historical and Monumental Buildings	
	Panel: Fitore Bajrami – Lubishtani and Arli Llabani	
14:00 – 14:10	The Restoration and Preservation of Albania's Mati Bridge	Ibiana Muça, Mateo Qyra, Fjona Ferati, Marin Malotaj
14:10 – 14:20	Gjirokastra: A Heritage Preservation Perspective	Fatjon Valteri, Indrit Koka, Liljana Troci
	Hydraulic and Coastal Engineering	
	Panel: Lavdim Osmanaj, Hana Shehu - Agani, and Alket Kumaraku	
14:25 – 14:35	Proposing Contemporary Measures to Prevent the Phenomenon of Erosion (Korthpula-Puke)	Igli Balla, Prof. Dr Oltion Marko













14:35 – 14:45	Application Of the Erosion Potential Method in Lumbardhi I Deçanit Watershed	Argjenda Shala, Bulza Lika, Melisa Fetahaj, Oltion Marko
14:45 – 14:55	Exploring The Design and Effectiveness of Nature- Inspired Wave Breakers for Coastal Protection	Isabel Hoxhaj
	Hydrology, Flooding and Resource Management	
	Panel: Laura Kusari and Andrin Kerpaci	
15:00 – 15:10	Hydrological modeling of the Fersina River	Elita Ferati, Qëndresa Berisha
15:10 – 15:20	Sustainable Water Resource Management in Albania	Leunora Bala
12:00 – 16:00	Session 4 – Room 415	
	Environmental Quality and Management	
	Panel: Lavdim Osmanaj, Vlerë Krasniqi, and Teida Shehi	
12:00 – 12:10	Education for Waste Management	Mikael Lako, Endi Biba, Alfred Lako
12:10 – 12:20	Rehabilitation and Revitalization of Surface Mining Areas through the Integrated Waste Management System for Spoils and Constructions	Esli Elezi, Aishe Hyka, Kleant Semema
12:20 – 12:30	Principles of Circular Economy as an instrument to increase the environmental responsibility of businesses	Orjada Ngjeliu, Teida Shehi, Konalsi Gjoka
12:30 – 12:40	Sustainable Solutions Exploring Eco-Friendly Building Materials	Adjela Nasufi, Antonela Perndojaj
12:40 – 12:50	Integrated Network of Collection and Transportation of Construction and Demolition Waste	Grid Fortuzi, Roland Çera, Kleant Semema
12:50 – 13:00	Deforestation In Pakistan: An Overview of Causes & Impacts (Online)	Ammar Ahmad, Marco Ciolli
Climate Change Adaptation and Mitigation & Efficiency and Renewable Energy		
Panel: Laura Kusari, Vlerë Krasniqi, and Kleant Semema		











14:00 – 14:10		Elif Simsek, Fatmaelzahraa Matar, Ali Sari, Alif Altunsy,
	Analysis and Design of 5-MW Onshore Wind Turbine Under Wind Load	Onur Gunes
14:10 – 14:20	Integrating Adaptation and Mitigation Strategies for Climate Resilience and Sustainable Development: Challenges and Opportunities	Denisa Muça, Ledisa Ahmati, Luena Mullaj
14:20 – 14:30	Carbon Footprint and Carbon Emission Reduction of Higher Education Institution Buildings: Case of Faculty of Civil Engineering Building, Tirana	Era Fusha, Sindi Alliu, Oltion Marko
14:30 – 14:40	Building the Resilience of Protected Areas to Climate Change, Case Study Protected Area Baks Rrjoll, Shkoder	Sindi Alliu, Era Fusha, Entela Çobani
14:40 – 14:50	Strategies for mitigation and adaptation of climate change	Euerda Asllani, Olta Lushaj, Entela Çobani
	Water and Wastewater Treatment	
Panel: Figene Ahmedi, Premton Thaqi, and Entela Çobani		
14:55 – 15:05	Membrane Bioreactor in Wastewater Treatment - Case study: WWTP in the Cement Factory "Antea Titan"	Mikael Lako, Françesko Dërguti, Alfred Lako
15:05 – 15:15	Energy Production Through Treating Wastewater	Elita Ferati
15:15 – 15:25	Comprehensive Analysis of Wastewater Treatment Processes and Environmental Impacts: A Case Study of Tirana Water Treatment Plant	Orgest Shehi

## Day 3: Saturday, April 27

### **Social Activity**

Time	Activity	Location
08:45 – 09:00	Gathering and departure from Faculty of Civil Engineering	FCE Parking Lot
10:30	Arrival in Prizren	Prizren
10:30 – 13:00	City tour	Prizren
12:45 – 13:00	Gathering and departure from Prizren	Prizren













14:30	Arrival in Prishtina	FCE Parking Lot

#### LIST OF TOPICS PRESENTED AS POSTERS

Topic	Title	Authors
EQM	Optimising existing municipal waste management systems: a case study of Deçan	Faze Ukaj
ERE	Structural Facades, Case of "Forever Green Tower" in Tirana	Xhoana Molla, Ilda Rusi
GNSDI	Utilization of the QGIS Platform with OSGEO for Publishing and Analyzing Geospatial Data of River and Road Networks in the Municipality of Vushtrri	Dardan Muzaqi, Agon Nimani, Bashkim Idrizi
WWT	Impact of Antibiotics in Wastewater Treatment Plants and Optimal Configurations for Kosovo	Alketa Bislimi, Marigona Xhini
EQM	Navigating Environmental Legislation: A Comparative Analysis of Kosovo and Turkey	Donjeta Shabani
EQM	Towards Sustainable Waste Management: Challenges, Solutions and Priorities for the Municipality of Prishtina	Hana Puka
CCAM	Climate Change Effects, Contributors and Measures: A Case Study of India and Kosovo	Dorea Deda
ERE	Embracing energy efficiency processes for a neighborhood building	Gloria Ikonomi, Enxhi Qershia, Teida Shehi
CCAM	Climate change impacts on different stages of waste management system	Kristjana Omeri, Vlorlinda Daja, Teida Shehi, Konalsi Gjoka
ERE	Moving toward a Circular and Sustainable Energy Paradigm	Teida Shehi, Enkelejda Gjinali, Konalsi Gjoka
CCAM	Climate Change: Effects, Contributors and Actions Taken - Case Studies of Kosovo and Germany	Lis Bytyqi
ERE	Integration of Renewable Energy in Urban Environments	Alketa Suka, Gongje Luzhnica
CMCE	AutoCAD Scripting for Efficient Spatial Design and Drafting	Anisa Cenaj, Marsed Leti
SEE	Assessing the Seismic Performance of a Communist-Era Albanian Residential Building Using Nonlinear Static and Dynamic Analyses	Marsed Leti, Gledis Shuaipi, Joana Biba













SEE	A Practical Guide to Incremental Dynamic Analysis for a Premodern Reinforced Concrete Building Template in Albania	Marsed Leti, Gerta Isufaj
EQM	Formaldehyde as an Indoor Pollutant: Origins, Impacts, and Remedial Strategies. A case study of Kosovo	Eda Krasniqi
EQM	Tackling Indoor Air Pollution in Kosovo: Sources, Impacts, and Mitigation Strategies for Lead	Delvina Çollaku
WWT	Use of Activated Carbon for Drinking Water Treatment Case study: Bovilla Water Supply and Purification Plant	Jera Xhelilaj, Kristilda Lala
CMCE	An analysis of (group and individual) Tensioning Techniques in Posttensioned Concrete, Mechanical Insights and Practical Implications	Mirela Balaj, Laur Haxhiu, Vlora Shatri, Bajram Shefkiu
НМВ	History of Architecture Renaissance to Modern, British Museum London by Robert Smirke	Dafina Balaj, Era Tytyri, Tringa Rama
SEE	Program of Works for the multi-store Building B+P+5, method used: Gant Chart and Pert Chart	Elton Aliu, Albion Sylaj, Valon Veseli
CMCE	2D vs 3D Models for the Seismic Response Assessment of Reinforced Concrete Buildings	Klea Kasa, Huseyin Bilgin
EQM	Green Buildings	Edacan Kulak, Elif Altınçekiç
GCPRS	The integration of Unmanned Aircraft Systems for the 3D surveying of rural areas	Arli Llabani, Ervin Stena
CCAM	Climate Change: Effects, Contributors and Actions Taken - Case Studies of Kosovo and Japan	Argjenda Shala, Bulza Lika, Melisa Fetahaj
CM	Physical and Chemical Characterization of Basalt Fibers	Delara Etezad, Agathe Robisson, Teresa Liberto, Philipp Preinstorfer
EQM	Optimizing Waste Management in Gjilan Municipality: Challenges and Solutions	Donjeta Shabani
GNSDI	Potential flood-prone areas identification and mapping using GIS-based multi-criteria decision making and analytical hierarchy process for the territory of Kosovo	Agon Nimani, Dardan Muzaqi, Bashkim Idrizi
CMCE	Potential of Double Skin Façades	Arta Ramadani, Bardha Isufi
GE	Comparison Between Static Cone Penetration Test and Borehole	Brunilda Metkaj, Ornela Bici, Eliota MerollarI, Besmira Bushaj