



Innovative Theory and Practices in Structural Engineering and Construction
The Twelfth International Structural Engineering and Construction Conference (ISEC-12) Chicago, Illinois, August 14-18, 2023

ISEC-12 Detailed Technical Program

Monday - Aug 14, 2023		
17:00-18:30	Registration	University of Illinois Chicago (UIC), ERF Building 2nd Floor, CME Lobby 842 W Taylor St, Chicago
17:00-18:30	Welcome Reception Soft drinks and appetizers will be served.	
Tuesday - Aug 15, 2023		
<i>Breakfast 7:30-8:15am, SCE 302</i>		
7:30-17:00	Registration	ERF Lobby, 1st Floor 842 W Taylor St., Chicago
8:20-8:45am	Conference Briefings/Opening Sessions/Welcomes Aslihan Karatas , ISEC-12 Conference Chair Karl Rockne , UIC Associate Dean for Research Asli Pelin Gurgun , ISEC Society International Vice President	UIC Student Center East, Room #: SCE 302 750 S. Halsted St., Chicago Online participants: V-Room A Zoom link https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdEIQMWV0cUVSQ09 PMI: 336 508 2496 Passcode: 395011
8:45-9:30am	Keynote Speaker I: Dr. Soliman Khudeira , Section Chief-Major Projects, Chicago Department of Transportation (CDOT)	



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Technical Session 1A - Tuesday, Aug 15, 2023, 9:45-11:15			
	Steel Structures - I Session 1A-1 (ERF Room 1003) <u>Session Chair: STOJAN KRAVANJA</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdEIQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 1	BIM and Modeling in Construction Session 1A-2 (ERF Room 1033) <u>Session Chair: ALFREDO SERPELL</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdEIQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 2	Innovative Materials for Concrete - I Session 1A-3 (ERF Room 1043) <u>Session Chair: MARK BEDI AKO</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdEIQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 3
9:45-10:00	STR-06: EVALUATING MESOSCALE STRAIN LIMIT FOR TRANSVERSE PLATE-TO-RHS X JOINTS <i>IHYUN RYU, CHEOLHO LEE, SEONHU KIM</i>	AAE-07: A CASE STUDY ON ORGANIZATIONAL STRUCTURE CHANGE TO SUPPORT BIM IMPLEMENTATION IN DESIGN FIRM <i>THI KIM DUNG VU, SHANG-HSIEN HSIEH</i>	SUS-01: SHRINKAGE MITIGATING STRATEGIES ON HIGH-PERFORMANCE SELF-CONSOLIDATING CONCRETE (HP-SCC) <i>IRAJ MAMAGHANI, REED TURNER, NJIRU MWAURA</i>
10:00-10:15	STR-08: STRENGTH AND DUCTILITY EVALUATION OF TUBULAR THIN-WALLED STEEL BRIDGE PIERS UNDER CYCLIC LOADING <i>IRAJ H.P. MAMAGHANI, NJIRU MWAURA</i>	FAM-04: RESEARCH ON DETERIORATION DIAGNOSIS SYSTEM FOR BUILDING EXTERIOR WALL USING BUILDING INFORMATION MODELING <i>CHU-TSEN LIAO, NAI-WEN CHI, MENG-HSIU CHANG, TA-CHUN KAO, HEUI-YUNG CHANG, CHI-MING LAI</i>	SUS-06: ENCAPSULATION OF GROUND BOTTOM ASH AS SUPPLEMENTARY CEMENTITIOUS MATERIALS FOR CEMENT MORTAR <i>KIKI DWI WULANDARI, WAHYUNIARSIH SUTRISNO, GATI ANNISA HAYU, HARUN ALRASYID, PRIYO SUPROBO</i>
10:15-10:30	STR-21: EFFECT OF CHORD PRELOADING AND BRACE INCLINATION ON AXIAL RESISTANCE OF FULL-WIDTH RHS X-JOINT <i>SIHYEONG PARK, CHEOLHO LEE, SEONHU KIM</i>	CON-24: MIXED REALITY APPLICATION FOR STAIRCASE INSPECTION <i>MICHELLE SIU ZHAI LEE, NOBUYOSHI ABUKI, TOMOHIRO FUKUDA</i>	MAT-02: FLEXURAL PROPERTIES OF POLYPROPYLENE FIBER REINFORCED CONCRETE CONTAINING FLY ASH FOR NORMAL CONCRETE PAVEMENT <i>TSUNEJI SASAKI, HIROSHI HIGASHIYAMA, MUTSUMI MIZUKOSHI, AKINORI FUJIMORI, RYOUSUKE TAKAHARA</i>
10:30-10:45	STR-43: POST-FIRE DAMAGE ASSESSMENT OF SLIPCRITICAL CONNECTIONS <i>HEUI-YUNG CHANG, CHI WEI LI, CHUTSEN LIAO, KER-CHUN LIN, HI-MING LAI, SHENG-JHIH JHUANG</i>	CON-29: REALITY-ENHANCED SYNTHETIC IMAGE TRAINING DATASET FOR COMPUTER VISION CONSTRUCTION MONITORING <i>JUAN DIEGO NUNEZ-MORALES, SHUN-HSIANG HSU, AMIR IBRAHIM, MANI GOLPARVAR-FARD</i>	CAC-04: AN EXPERIMENTAL RESEARCH CONTRIBUTION TO THE USE OF CARBON NANOTUBES IN CEMENT COMPOSITES <i>ABBAS AHMED ALBU SHAQRAA</i>
10:45-11:00	STR-60: DETERMINATION OF THE RIB-TO-CROSSBEAM STRESSES IN ORTHOTROPIC STEEL DECKS <i>HANS DE BACKER, AMELIE OUTTIER</i>	ENR-02: BENEFICIAL IMPACTS OF EMERGING SMART SOLUTIONS FOR ENERGY EFFICIENCY IN THE BUILT ENVIRONMENT <i>OLUSEGUN AANUOLUWAPO OGUNTONA, OPEOLUWA ISRAEL AKINRADEWO, FIKILE NGOBENI, CLINTON OHIS AIGBAVBOA</i>	SUS-22: EVALUATION OF CONCRETE INJECTED WITH CO ₂ AND EXPOSED TO COASTAL ENVIRONMENT <i>ABBAS AHMED ALBU SHAQRAA</i>
11:00-11:15	MAT-15: MECHANICAL AND DURABILITY STUDY ON STEEL AND GLASS FIBERS BASED CEMENTITIOUS COMPOSITE -ONLINE- <i>YOGESH KUMAR, SANJEEV KUMAR</i>	AAE-01: DESIGN-BUILT BAMBOO STRUCTURE USING MULTIPLE-MEMBER PREFABRICATED CONNECTORS -ONLINE- <i>SUPREDEE RITTIRONK</i>	MAT-03: FINITE ELEMENT ANALYSIS OF UHPFRC CYLINDERS CONFINED WITH CFRP SHEETS -ONLINE- <i>MOHAMMED A. AL-OSTA</i>



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TEA AND COFFEE BREAK
11:15 - 11:30 (ERF Lobby, 1st Floor)

Technical Session 1B - Tuesday, Aug 15, 2023, 11:30-12:45

	Steel Structures - II Session 1B-1 (ERF Room 1003) <u>Session Chair: AMIR IRANMANESH</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVVOcUVSQTO9#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 1	Green Design Session 1B-2 (ERF Room 1033) <u>Session Chair: SUPREDEE RITTIRONK</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVVOcUVSQTO9#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 2	Innovative Materials for Concrete - II Session 1B-3 (ERF Room 1043) <u>Session Chair: PRANSHOO SOLANKI</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVVOcUVSQTO9#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 3
11:30-11:45	STR-84: NUMERICAL BUCKLING BEHAVIOR OF PERFECT AND IMPERFECT STEEL CYLINDERS UNDER EXTERNAL PRESSURE FNU TABISH, IRAJ HOSSEIN POULI MAMAGHANI	SUS-24: ARCTIC ARCHITECTURES: UNLEASHING ENERGY EFFICIENCY AND RESILIENCE IN EXTREME COLD REGIONS HAMED KHALEghi, ASLIHAN KARATAS	MAT-19, DEVELOPMENT OF SHRINKAGE AND CREEP PREDICTION MODELS FOR HIGH PERFORMANCE CONCRETE BY FAST-ACCESS CLOUD-BASED DATABASE WEN-CHENG LIAO, JENN-CHUAN CHERN
11:45-12:00	OAG-01: NUMERICAL ANALYSIS OF SEISMIC RESPONSE OF STEEL CYLINDRICAL LNG STORAGE TANKS IRAJ HOSSEIN POULI MAMAGHANI, SHAFQAT ULLAH	AAW-04: EVALUATION OF STRATEGIES FOR THE REDUCTION OF WATER CONSUMPTION IN REAL ESTATE PROJECTS MARIA XIMENA VALENZUELA BLANCO, JOSE GUEVARA, JOHN SALAZAR, GABRIEL CASTELBLANCO	GFE-21: DESIGN OF BASAL REINFORCED EMBANKMENTS SUPPORTED BY GEOTHERMAL ENERGY PILES PRIMOŽ JELUŠIČ, BOJAN ŽLENDER
12:00-12:15	STR-07: BUCKLING BEHAVIOR OF RING STIFFENED ALUMINIUM CYLINDERS SUBJECTED TO EXTERNAL PRESSURE FNU TABISH, IRAJ H.P. MAMAGHANI	ENR-04: INFLUENCE OF ENERGY EFFICIENCY RENOVATION ON INDOOR CLIMATE KEOVATHANA RUN, JEAN-FRANÇOIS DUBÉ, FRANCK CÉVAËR	AAC-04: EVALUATION OF SELF-HEATING AND ENERGY HARVESTING POTENTIAL OF MULTIFUNCTIONAL ALKALI ACTIVATED METASHALE MORTARS LUKÁŠ FIALA, PETR HOTĚK, WEI-TING LIN, ROBERT ČERNÝ, ADAM PIVÁK
12:15-12:30	STR-74: STRESS CONCENTRATION DUE TO SHEAR LAG IN BOX GIRDER UNDER DISTRIBUTED LOAD EIKI YAMAGUCHI, NAOTO KITAKA	PRO-03: METHODS FOR ACCOUNTING FOR RISKS IN LONG-TERM PROJECTS AMR GAMALELDIN, RANA KHALLAF	GFE-10: INFLUENCE OF SOIL FABRIC ON DYNAMIC PROPERTIES OF SAND: AN EXPERIMENTAL STUDY ARPIT JAIN, SATYENDRA MITTAL, SANJAY KUMAR SHUKLA
12:30-12:45	STR-38: ANALYSIS OF MULTISTORY HIGH-RISE BUILDINGS IN HIGH SEISMIC ZONE SADDAM HUSSAIN, SHIFA MOIZ, CHIARA BEDON	AAE-08: COLORED ROOFS: A SOLUTION TO MITIGATION UHI AND REDUCING URBAN SURFACE HEATING -ONLINE- ZAINAB KHALID	STR-49: A UNIFIED MACHINE LEARNING TO PREDICT ULTIMATE TENSILE AND BOND CAPACITY OF FRCM -ONLINE- NIKHIL HOLSAMUDRKAR, SAUVIK BANERJEE, ASIM TEWARI

LUNCH 1 (12:45 - 13:30)
(UIC Student Center East, Room #: SCE 302750 S. Halsted St., Chicago SCE 302)



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Technical Session 2A - Tuesday, Aug 15, 2023, 13:30-14:45			
	Bridges Session 2A-1 (ERF Room 1003) Session Chair: HANS DE BACKER V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 1	Innovative Materials for Concrete - III Session 2A-2 (ERF Room 1033) Session Chair: MARK BEDIAKO V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 2	Structural Testing and Measurements Session 2A-3 (ERF Room 1043) Session Chair: ISAMU YOSHITAKE V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 3
13:30 - 13:45	STR-58: FATIGUE REAL SCALE TEST COMPARISON WITH ACTUAL BRIDGE MONITORING HANS DE BACKER, AMELIE OUTTIER, GILLES VAN STAEN	MAT-13: COMPARISON OF THE MECHANICAL AND TRANSPORT BEHAVIOR OF PIT SAND AND QUARRY DUST CONCRETE MARK BEDIAKO, ERIC OPOKU AMANKWAH, EMMANUEL APPIAH-KUBI, NELSON ASANTE	STR-11: CRACK OBSERVATION OF RC-WALL EXPERIMENTS USING IMAGE MEASUREMENT YUAN-SEN YANG, SHYH-JIANN HWANG
13:45 - 14:00	STR-59: SIMPLIFIED MODELING OF V-SHAPED BRIDGE PIERS HANS DE BACKER, AMELIE OUTTIER	MAT-16: CORROSION RATE OF REINFORCED CONCRETE WITH COMBINED DETERIORATION BY CHLORIDE ATTACK AND ASR SHINICHI MIYAZATO, NORIHIRO SUGAWARA	STR-20: HORIZONTAL ACCELERATION OF FLOOR-MOUNTED NONSTRUCTURAL COMPONENTS UNDER ROCKING MOTION CHANG-JUN BAE, CHEOL-HO LEE, SU-CHAN JUN
14:00 - 14:15	STR-85: DYNAMIC ANALYSIS OF THE FOOTBRIDGE EXPOSED TO PEDESTRIAN LOADING VLADIMÍR ŠÁNA, JIŘÍ LITOŠ, MICHAL POLÁK, TOMÁŠ PLACHÝ	MAT-20: SELF-COMPACTING CONCRETE WITH GROUND FERRONICKEL SLAG AS SUPPLEMENTARY CEMENTITIOUS MATERIAL MD NURUZZAMAN, PRABIR KUMAR SARKER	STR-53: ASSESSMENT OF CORROSION IN A PARKING DECK USING GPR AKM ANWARUL SLAM, GARIMA NEUPANE
14:15 - 14:30	STR-89: COMPARISON OF SCALED HYBRID SIMULATIONS AND SHAKING TABLE TESTS ON A 2-SPAN REINFORCED CONCRETE BRIDGE AMIRHOSSEIN IRANMANESH, MAHSA PANAHI, FARHAD ANSAR	AAC-03, USE OF WASTE GLASS AS AN ALKALINE ACTIVATOR AND FLY ASH AS PRECURSOR IN GEOPOLYMER CONCRETE PRANSHOO SOLANKI, GUANG JIN	FAM-07: CONCRETE CORE DEFECTS IMAGINATION FOR MESOSCALE CFST MEMBERS USING STRESS WAVE MEASUREMENT -ONLINE- BIN XU, JIANG WANG, QIAN LIU
14:30 - 14:45	STR-45: SEISMIC RETROFIT OF SUBSTANDARD RC BRIDGES USING CONTEMPORARY MITIGATION MEASURES -ONLINE- JUMANA HASINA, AMAN MWAFY, ANAS ISSA	STR-52: NONLINEAR FINITE ELEMENT ANALYSIS OF FULL-SCALE EXTERNAL POST-TENSIONED CONCRETE BOX GIRDER AT JACKING AND SERVICE CANDRA IRAWAN, BAMBANG PISCESA, ASDAM TAMBUSAY, SIDIQ PURNOMO GATUT SANTOSO, PRIYO SUPROBO	
14:45 - 15:00	CON-02: FRAMEWORK FOR IDENTIFYING INFLUENCING FACTORS FOR STAY-IN-PLACE FORMWORK IN BRIDGE CONSTRUCTION -ONLINE- DHARMIK V PATEL, JAYMEEN H PATEL, VISHAL H LAD, KASHYAPKUMAR ARVINDBHAI PATEL, DILIPKUMAR ARVINDKUMAR PATEL	MAT-28: TREATED SEA COMPONENTS CONCRETE -ONLINE- AHMAD NASSEF	



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TEA AND COFFEE BREAK
15:00 - 15:15 (ERF Lobby, 1st Floor)

Technical Session 2B - Tuesday, Aug 15, 2023, 15:15-17:00			
	Rehabilitation and Retrofitting Methods Session 2B-1 (ERF Room 1003) Session Chair: MOHSEN ISSA V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVocUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 1	Project Management Session 2B-2 (ERF Room 1033) Session Chair: ASLI PELIN GURGUN V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVocUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 2	Novel Housing and Architectural Forms Session 2B-3 (ERF Room 1043) Session Chair: ASLIHAN KARATAS V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVocUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 3
15:15-15:30	STR-62: BOND RESISTANCE OF REPAIRED CRACKED-CONCRETE EMBEDDED WITH REBAR IN VARYING SIZE UNDER CYCLIC LOAD YU-CHENG KAN, KUANG-CHIH PEI	CON-30: EXPLORING THE USE OF NLP TO AUTO-ALIGN MASTER SCHEDULES WITH SUPERINTENDENTS LOOK-AHEADS IN CONSTRUCTION PROJECTS YOONHWA JUNG, MANI GOLPARVAR-FARD	ENR-05: PREDICTING ENERGY USE INTENSITY OF US HOTEL BUILDINGS USING CBECs MICRODATA HEVAR PALANI, JUAN ACOSTA-SEQUEDA, SYBIL DERRIBLE, ASLIHAN KARATAS
15:30-15:45	STR-63: EXPERIMENTAL STUDY ON AXIAL STRENGTH AND PURE BENDING RESPONSE OF FWSCT-JACKETED SRC CIRCULAR COLUMNS CHUNG-SHENG LEE, OBED ADI KUSUMA, REN-KANG SU, MHD. RONY ASSHIDIQIE	STR-76: OPTIMIZATION OF SUSTAINABLE PROFIT IN THE CONSTRUCTION OF HALL STRUCTURES STOJAN KRAVANJA, TOMAŽ ŽULA	HOS-02: ENERGY EFFICIENCY AND CONSERVATION PROGRAMS FOR LOW-INCOME AND MINORITY HOMES ANH D. CHAU, MARIANNE SCHMINK, NICHOLAS W. TAYLOR, LYNN M. JARRETT
15:45-16:00	STR-54: DAMAGE DETECTION IN A STEEL BEAM USING VIBRATION RESPONSE AKM ANWARUL ISLAM, UTSHREE SHARMA	CON-06: IMPACT FACTORS ON TIME AND COST IN PILE CONSTRUCTION KHALID AL GAHTANI, NAIF ALSANABANI	SUS-11: POTENTIAL BENEFITS OF FUTURISTIC BUILDING MATERIALS OLUSEGUN AANUOLUWAPO OGUNTONA, OPEOLUWA ISRAEL AKINRADEWO, ONALERONA MOKONO, CLINTON OHIS AIGBAVBOA
16:00-16:15	SUS-23: THE EFFECT OF PALM OIL WASTE ON THE PROPERTIES OF GEOPOLYMER CONCRETE: A REVIEW HUSSEIN HAMADA, FARID ABED, ZAID AL-SADOON	FAM-08: REVAMPING FACILITY ASSET MANAGEMENT (FAM) FOR SMART MANUFACTURING: VARIABLES FOR THEORY AND IMPLEMENTATION YOUNGSOO JUNG, HEEWOO LEE, ZHENHUI JIN, SANGBUM KIM, KYONG JU IM	HOS-03: BASIC REQUIRED PROGRAM OF COMPACT HOUSE FOR ELDERLY WITH LOW INCOME -ONLINE- CHOOMKET SAWANGJAOEN
16:15-16:30	STR-86: A RETROFIT SOLUTION FOR UNCODED STEEL RAFTER TO CONCRETE RING BEAM CONNECTIONS JOVANCA SMITH, ALDEN DANIEL	CPM-08: THE APPLICATION OF BLOCKCHAIN TECHNOLOGY IN PROJECT MANAGEMENT FAJER AL ALI, FATEMA AL SHEHHI, ABDULRAHIM SHAMAYLEH, DANIA ABUHALIMEH	AAE-14: IDENTIFYING THE CAUSES OF ARCHITECTURAL DESIGN PROCESS FAILURES -ONLINE- GULDEN GUMUSBURUN AYALP, YUSUF BERKAY METINAL



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16.30-16.45	STR-48: PERFORMANCE EVALUATION OF BEAMS STRENGTHENED WITH MECHANICALLY ANCHORED CARBON FIBER REINFORCED CEMENTITIOUS MATRIX (FRCM) -ONLINE- NIKHIL HOLSAMUDRKAR, SAUVIK BANERJEE, ASIM TEWARI	AAC-09: INNOVATION ENTERPRISE MECHANISMS IN DEEP TECHNOLOGY BUSINESSES -ONLINE- AHMAD TALAL BADEREG, ASHRAF EL-HAMALAWI	HOS-04: UNIVERSAL DESIGN HOUSE MODEL FOR ELDERLY WITH LOW INCOME -ONLINE- CHOOMKET SAWANGJAROEN
16:45-17:00		CON-10: PREDICTING CONSTRUCTION CREW PRODUCTIVITY FOR CONCRETE POURING OPERATIONS OF RC COLUMNS USING ANN -ONLINE- PARTH PATEL, DHARMIK V PATEL, VISHAL H LAD, ANKITKUMAR PATEL, KASHYAPKUMAR ARVINDBHAI PATEL, DILIPKUMAR ARVINDKUMAR PATEL	SUS-20: KEY BARRIERS TO THE ADOPTION OF GREEN BUILDING IN THE CONSTRUCTION SECTOR -ONLINE- YOLANDI DE BEER, KAHILU KAJIMO-SHAKANTU
Wednesday - Aug 16, 2023			
8:00-17:00	Registration		ERF Lobby, 1 st Floor
8:15-9:15am	Breakfast & Announcements		UIC Student Center East, Room #: SCE 302 750 S. Halsted St., Chicago



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Technical Session 3A - Wednesday, Aug 16, 2023, 9:30-11:00			
	Concrete Structures Session 3A-1 (ERF Room 1003) Session Chair: ISAMU YOSHITAKE V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 1	Infrastructure Management Session 3A-2 (ERF Room 1033) Session Chair: SOLIMAN KHUDEIRA V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 2	Innovations in Structural Analysis & Design - I Session 3A-3 (ERF Room 1043) Session Chair: AMIR IRANMANESH V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 3
9:30-9:45	STR-10: ANALYSIS OF ULTRA HIGH PERFORMANCE CONCRETE (UHPC) BEAMS REINFORCED WITH GFRP BARS FARID ABED, ZEINAH ELNASSAR, ZIN MEHAINI	AAC-14: INFRASTRUCTURAL FEASIBILITY INVESTIGATION FOR IMPLEMENTING AUTONOMOUS VEHICLES SOUJANYA PILLALA, KASIM ARMAGAN KORKMAZ	STR-83: AN INTELLIGENT ISOLATION SYSTEM BASED-ON LONG SHORT-TERM MEMORY MODULE MODEL FOR GROUND MOTION CHARACTERISTICS PREDICTION TZU KANG LIN, LYAN-YWAN LU, CHI-YING LIN
9:45-10:00	STR-12: FLEXURAL PERFORMANCE OF RC BEAMS BONDED WITH UV-GFRPR SHEETS HIROSHI HIGASHIYAMA, HARUKI MITSUKUCHI, NOBUHIRO MITSUKAWA, OSAMU TAKAHASHI, TOSHIYUKI ISHIKAWA	INF-04: RAILWAY EMBANKMENT CONSTRUCTED ON SOFT DELTAIC DEPOSIT: LONG-TERM BEHAVIOR AND EFFECT OF TREATMENT JOYA RANI MALLICK, SHAMONTEE AZIZ, IRAM LAMIYA HOQUE, TAMANNA-E-HAFIZ MAISHA, S.M. TAHSAN UL HAQ, AFM SAIFUL AMIN	STR-55: VIBRATION REDUCTION AND ENERGY HARVESTING OF BUILDING STRUCTURES USING ELECTROMAGNETIC MULTIPLE TUNED MASS DAMPERS GING-LONG LIN, CHI-CHANG LIN, YU-JING CHEN, TACHIH HUNG
10:00-10:15	STR-46: FINITE ELEMENT ANALYSIS OF EXISTING RC BEAM-COLUMN JOINTS STRENGTHENED BY PRESS-JOINT WITH ADDITIONAL RC MEMBERS YUSUKE MAIDA, HIROYASU SAKATA	AAW-03: INVESTIGATION OF HYDRODYNAMICS AND SCOUR AROUND BRIDGE PIERS UNDER THE COMBINED WAVE AND CURRENT EFFECTS THEKKILAKKATTU IYPE ELDHO, GAURAV MISURIYA	STR-56: EFFECTS OF NEAR-FAULT ON DYNAMIC RESPONSE OF A STRUCTURE EXCITED BY EARTHQUAKE WAVES ABDUL HAYIR, ROHAT INATCI
10:15-10:30	STR-75: CONFINED REINFORCED CONCRETE VERTICAL ELEMENT DUCTILITY UNDER LATERAL LOAD: INFERENCE FROM TEST RESULTS ASM NURUZZAMAN, K. MATSUKAWA, AFM SAIFUL AMIN	CEN-02: SEA LEVEL RISE POSE CHALLENGES TO FOUNDATION CONSTRUCTION IN COASTAL REGIONS SYED FAIZ AHMAD	STR-19: EFFECTS OF ROOF SHAPES ON WIND PRESSURE DISTRIBUTION OF MULTI-SPAN LOW-RISE BUILDINGS -ONLINE- DEEPAK SHARMA, RITU RAJ, SHILPA PAL
10:30-10:45	STR-14: EFFECT OF PARTIAL GEO-GRID CONFINEMENT ON REINFORCED CIRCULAR SHORT COLUMNS UNDER AXIAL LOADING -ONLINE- PAVITAR SINGH, A.B. DANIE ROY	CON-07: CHALLENGES TO THE ADOPTION OF THE BOT CONTRACTS SYSTEM FOR INFRASTRUCTURE DEVELOPMENT GHANIM ABDULRAHMAN BAKR	STR-29: BUCKLING STRENGTH OF COLUMNS IN LOW-RISE MULTI-SPAN FRAMES EVALUATED BY THE STABILITY INDEX -ONLINE- TAKUMA NISHIMURA, MASAE KIDO, KEIGO TSUDA
10:45-11:00	MAT-29: STRENGTHENING OF CORROSION-DAMAGED RC BEAMS USING UHPFC LAYERS -ONLINE- SHAMSAD AHMAD, MOHAMMED A. AL-HURI, MOHAMMED A. ALOSTA	SUS-04: INVESTIGATING DIVERSE TRIP PURPOSES AND RELATED PROBLEMS OF COMMUTERS IN URBAN PERIPHERAL AREA -ONLINE- I-SOON RAUNGRATANAAMPORN, PAWINEE IAMTRAKUL, JIRAWAN KLAYLEE	STR-50: SEISMIC VULNERABILITY ASSESSMENT OF BASE-ISOLATED RC FRAME BUILDING USING DDBD METHOD -ONLINE- RITIKA JAIN, KAUSHIK GONDALIYA, TWINSY PALSANAWALA, SANDEEP VASANWALA, VISHISHT BHAIYA



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TEA AND COFFEE BREAK
11:00-11:15 (ERF Lobby, 1st Floor)

Technical Session 3B - Wednesday, Aug 16, 2023, 11:15-12:15

	<p style="text-align: center;">Concrete Structures Session 3B-1 (ERF Room 1003) <u>Session Chair: AMIR IRANMANESH</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 1</p>	<p style="text-align: center;">Decision Making in Construction Session 3B-2 (ERF Room 1033) <u>Session Chair: MANI GOLPARVAR-FARD</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 2</p>	<p style="text-align: center;">Composite Systems Session 3B-3 (ERF Room 1043) <u>Session Chair: AHMAD HADAVI</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 3</p>
11:15-11:30	STR-82: NONLINEAR FINITE ELEMENT ANALYSIS OF REINFORCED CONCRETE SHEAR WALLS ASDAM TAMBUSAY, BENNY SURYANTO, PRIYO SUPROBO, FILLBERT HANSELLY NJOKO	AAE-13: A BAYESIAN DATA UPDATING MODEL FOR MANAGING BUILDING ENVELOPE INSPECTIONS BORA JANG, JAMSHID MOHAMMADI	STR-05: FLEXURAL CAPACITY OF COMPOSITE BEAMS WITH AN INCREASED AREA OF BONDED STEEL PLATE CARL PIETER BRUWER
11:30-11:45	MAT-10: NUMERICAL MODELING OF HIGHPERFORMANCE FIBER-REINFORCED CONCRETE SHEAR PANEL BAMBANG PISCESA, MUDJI IRMAWAN, FAIMUN FAIMUN, PUJO AJI, WIMPIE AGOENG NOEGROHO ASPAR, AGUS DWI PURNOMO, DJOKO PRIJO UTOMO	CPM-04, RULE-BASED DELAY ANALYSIS SELECTION SYSTEM JUNESEOK YANG, DAVID ARDITI, DONG-EUN LEE	STR-13: COMPARATIVE STUDY ON TUNNEL LINING CONCRETE STRENGTHENED WITH CARBON-FIBER COMPOSITE CABLES AND SHEETS ISAMU YOSHITAKE, SHINGO MORIMOTO, SHINJI UENO, HISAHI HAYASHI
11:45-12:00	MAT-08: FLEXURAL STRENGTH OF KEVLAR EPOXY COMPOSITE WITH DIFFERENT FIBER ORIENTATIONS GARGI DANDADE, SOUREN MITRA, SOUMYA SARKAR, ANINDYA DEB	CPM-06: DECISION SUPPORT SYSTEM OF PAVEMENT SELECTION IN EMERGING ECONOMIES HIEP T. HOANG, ANH D. CHAU, LONG D. NGUYEN, LONG LE-HOAI	STR-28: SUGGESTIONS FOR IMPROVEMENTS IN TIMBER PORTAL FRAME DESIGN WITH SEMI-RIGID KNEE JOINTS LILITA OZOLA, JANIS FABRICIUS
12:00-12:15	SUS-03: EFFECT OF REINFORCEMENT CORROSION ON THE PUNCHING SHEAR OF RC SLABS INCORPORATING MACRO SYNTHETIC FIBERS -ONLINE- SALAH ALTOUBAT, MOHAMAD ALHALABI, MOHAME MAALEJ, SAMER BARAKAT, IBRAHIM FATTOUH	ENR-01: A STUDY ON THE ECONOMIC ANALYSIS FRAMEWORK OF THE ARCTIC ENERGY PLANT CONSTRUCTION PROJECT SEOUNGBEON NA, WOOSIK JANG, and JAEWAN PARK	STR-44: EVALUATION OF RETROFIT EFFECTIVENESS AND COST IMPLICATIONS OF MRF STRUCTURES USING DIFFERENT FRCM COMPOSITE SYSTEMS ROSHEN JOSEPH, AMAN MWAFY, SHAHRIA ALAM -ONLINE-
12:15-12:30	RAD-07: EFFECT OF EPISTEMIC UNCERTAINTY ON SEISMIC FRAGILITY OF BASE-ISOLATED RC BUILDING FRAME USING THE INCREMENTAL DYNAMIC ANALYSIS -ONLINE- KAUSHIK GONDALIYA, SANDIP VASANWAL, ATUL DESAI, RITIKA JAIN, VISHISHT BHAIYA	CON-04: FRAMEWORK FOR IDENTIFYING INFLUENCING FACTORS FOR FORMWORK SELECTION FOR RESIDENTIAL BUILDING CONSTRUCTION -ONLINE- VISHAL BHARDWAZ, UDDESHYA KUMAR, VISHAL H LAD, KASHYAPKUMAR ARVINDBHAI PATEL, DILIPKUMAR ARVINDKUMAR PATEL	CON-23: CALCULATION METHOD OF LATERAL STIFFNESS OF PVC CAVITY PARTITION WALL WITH DIFFERENT CONNECTION FORMS -ONLINE- BIAO ZHANG, HETAO HOU, FUHANG YANG, YIBO WANG



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LUNCH 2

12:30 - 13:30

(UIC Student Center East, Room #: SCE 302750 S. Halsted St., Chicago SCE 302)

Wednesday - Aug 16, 2023

12:45-13:45

*Keynote Speaker II: Prof. Mani Golparvar-Fard,
University of Illinois Urbana-Champaign*

**UIC Student Center East,
Room #: SCE 302
750 S. Halsted St., Chicago SCE 302**

Technical Session 4A - Wednesday, Aug 16, 2023, 14:00-15:30

	<p>Educational & Professional Ethics in Civil Eng. Session 4A-1 (ERF Room 1003) Session Chair: <u>ASLIHAN KARATAS</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011 BREAKOUT Rm 1</p>	<p>Innovations in Structural Analysis & Design, Part 2 Session 4A-2 (ERF Room 1033) Session Chair: <u>AMIR IRANMANESH</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 2</p>	<p>Issues in Construction Industry Session 4A-3 (ERF Room 1043) Session Chair: <u>ASLI PELIN GURGUN</u> V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 3</p>
14:00-14:15	<p>PRO-02: THE BEE CONCEPT IN THE PUBLIC PROCUREMENT SYSTEM: THE PERSPECTIVE OF CONSTRUCTION PROFESSIONALS CHRISTOPHER AMOAH</p>	<p>RAD-08: ANALYSIS OF FREQUENCY CONTENT AND STATISTICAL RELATIONSHIP AMONG EARTHQUAKE PARAMETERS OF SEISMIC DATA RAFID UMAYER MURSHED, MD. ANU ZAKARIA, KAZI NOSHIN, MD. FORKAN UDDIN, MOHAMMED EUNUS ALI, AFM SAIFUL AMIN</p>	<p>LDR-05: CAUSES OF CONTRACTUAL DISPUTES IN CONSTRUCTION PROJECTS ALFREDO SERPELLI, IGNACIO TORRES</p>
14:15-14:30	<p>CON-22: WORKFORCE MOTIVATIONAL FACTORS IN THE CONSTRUCTION INDUSTRY CHRISTOPHER AMOAH, LUKAS VAN NIEKERK</p>	<p>INF-05: ANALYSIS OF THE CAUSES OF DEGRADATION PRESTRESSED REINFORCED CONCRETE RAILWAY SLEEPERS SAMO LUBEJ, ANDREJ IVANIČ, GREGOR KRAVANJA, SEBASTIAN TOPLAK, MARJAN LEP</p>	<p>HOS-07: CHALLENGES CONFRONTING SOCIAL HOUSING DWELLERS KAHILU KAJIMO-SHAKANTU, CHRISTOPHER AMOAH</p>
14:30-14:45	<p>CON-16: CONSTRUCTION LABOR SHORTAGE, CHALLENGES, AND SOLUTIONS: A SURVEY-BASED APPROACH PIYARUWAN KALUTHANTIRIGE, LAHIRU SILVA, KASUN HEWAGE, SIMRAT PAL KAUR GIL, AEKAMJOT GILL</p>	<p>AAC-01: NUMERICAL SIMULATION OF SNOW DRIFTING AROUND SNOW FENCES PRATTASHA SAHA, MIJIA YANG</p>	<p>CON-12: COMPARISON OF THE PERFORMANCE OF ALTERNATIVE CONTRACTING METHODS OVER 10 YEARS IN A LARGE STATE TRANSPORTATION AGENCY -ONLINE- DEV SHAH, EDWARD MINCHIN, ASHISH T. ASUTOSH</p>
14:45-15:00	<p>EPE-01: DETERMINING THE SUCCESS FACTORS OF DISTANCE EDUCATION SYSTEMS IN ARCHITECTURAL EDUCATION -ONLINE- YUSUF BERKAY METINAL, GULDEN GUMUSBURUN AYALP</p>	<p>AAC-02: STUDY ON DEFLECTION CONTROL OF COMPOSITE SLABS STRENGTHENED WITH BONDED STEEL PLATES CARL PIETER BRUWER</p>	<p>QUA-01: IDENTIFICATION OF DEFECTIVE CONSTRUCTION WORKS DURING BUILDING INSPECTIONS -ONLINE-</p>



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			HAMDİ TEKİN, İSMAIL CENGİZ YILMAZ, KERİM KOÇ, SENAY ATABAY, ASLI PELİN GÜRGÜN
15:00-15:15	EPE-03: INDUSTRY SURVEYS REGARDING CONTINUING EDUCATION IN CONSTRUCTION MANAGEMENT -ONLINE- EDWARD MINCHIN, HAEKYUNG IM, ROBERT RIES, RAYMOND R. ISSA, ASHISH T. ASUTOSH	MAT-14: EFFECTS OF CIRCULAR HOLES DRILLED IN WOOD JOISTS AKM ANWARUL ISLAM, JOSHUA THOMAS	LDR-01: APPLICATION OF NEURAL NETWORK IN PREDICTING THE OUTCOME OF CONSTRUCTION DISPUTES -ONLINE- RUTVIK AMITBHAI PATEL, MUKUL BINU PATEL, KASHYAPKUMAR ARVINDBHAI PATEL, DILIPKUMAR ARVINDKUMAR PATEL
TEA AND COFFEE BREAK 15:15 - 15:30 (ERF Lobby, 1st Floor)			
Technical Session 4B - Wednesday, Aug 16, 2023, 15:30-17:00			
	Construction Risk and Safety Session 4B-1 (ERF Room 1003) Session Chair: DILIP PATEL V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 1		Impacts of COVID-19 in Construction Session 4B-3 (ERF Room 1043) Session Chair: EDWARD MINCHIN V-Room A Zoom link (for online participants) https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09#success PMI: 336 508 2496, Passcode: 395011, BREAKOUT Rm 3
15:30 - 15:45	CON-38: EVALUATION THE RISK LEVEL OF FACTORS CONTRIBUTING TO MATERIAL WASTAGE GENERATION IN CONSTRUCTION PROJECTS GHANIM A BAKR		LDR-04: NLP AND SNA FOR UNDERSTANDING RENEGOTIATIONS OF TOLL ROAD PPPS AMID THE COVID-19 PANDEMIC DIEGO ROJAS, JOSE GUEVARA, RANA KHALLAF, ALBERTO DE MARCO, GABRIEL CASTELBLANCO, JOHN SALAZAR
15:45-16:00	GFE-14: PREDICTION OF SLOPES SAFETY FACTOR USING ANN AND TREE-BASED MODELS SONAM LADOL, SATYENDRA MITTAL, MARK BRIAN JAKSA, KAMAL JAIN		PND-02: IMPACT OF COVID-19 PANDEMIC ON COMPETITIVENESS OF TOURIST DESTINATION CITIES -ONLINE- NATTAPON SANG-ARUN, WARALAK KHONGOUAN
16:00-16:15	AAE-24: CONSTRUCTION HEALTH AND SAFETY: A SCIENTOMETRIC ANALYSIS SAMUEL ADENIYI ADEKUNLE, CLINTON AIGBAVBOA, MATTHEW IKUABE		FAM-05: EMPLOYEES' RESPONSES TO WORKPLACE CHANGE DURING COVID-19 -ONLINE- CHAIWAT RIRATANAPHONG
16:15-16:30	CON-41: INTEGRATED SAFETY MANAGEMENT SYSTEM: EMPOWERING WORKERS TO IMPROVE HEALTH AND SAFETY IN CONSTRUCTION QAIS AMAKRHIL, GEORGE BROGMUS		AAW-05: HARNESSING SEWAGE SURVEILLANCE TO COMBAT PANDEMICS: A FOCUS ON COVID-19 -ONLINE- SANJEEV KUMAR, YOGESH KUMAR



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16.30-16.45	CON-40: CHALLENGES ON INTEGRATING BIM INTO CONSTRUCTION SAFETY MANAGEMENT <i>ELLEN NGASEO PINIANO, MITSUYASU IWANAMI</i>		CPM-03: AN INVESTIGATION INTO THE COST OF JOB HOPPING TO EMPLOYER IN THE CONSTRUCTION INDUSTRY <i>MORENA WILLIAM NKOMO, MOLUSIWA STEPHAN RAMABODU, EMMANUEL EMEM-OBONG AGBENYEKU</i>
16.45-17.00	CPM-07: METHODS AND TOOLS USED FOR MANAGEMENT OF GEOTECHNICAL RISKS IN CONSTRUCTION PROJECTS -ONLINE- <i>IDIL CALIK, ASLI PELIN GURGUN, MEHMET SUKRU OZCOBAN</i>		EPE-04: DEVELOPING A RETENTION STRATEGY FOR THE SOUTH AFRICA CONSTRUCTION INDUSTRY <i>MORENA WILLIAM NKOMO, MOLUSIWA STEPHAN RAMABODU, EMMANUEL EMEM-OBONG AGBENYEKU</i>

Wednesday - Aug 16, 2023		
18:00	Meet at UIC for the transportation to banquet	In Front of UIC ERF Building 842 W Taylor St, Chicago
18:30-20:30	DINNER BANQUET	Signature Room at the 95th 875 N Michigan Ave, Chicago
Thursday - Aug 17, 2023		
13:00-16:00	Technical Tour – Chicago River Architecture Tour	Meeting at UIC ERF Building 842 W Taylor St, Chicago
Friday - Aug 18, 2023		
9:00-12:00	Cultural Tour 1 – Wrigley Field Tour	Meeting at UIC ERF Building 842 W Taylor St, Chicago
Friday - Aug 18, 2023		
14:15-17:00	Cultural Tour 2 – Shedd Aquarium – “Must See Tour” Experience	Meeting at UIC ERF Building 842 W Taylor St, Chicago