



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



ISEC-11 Detailed Technical Program

World times corresponding to ISEC-11 events are given on Pages 10-12.

Monday – July 26, 2021		
17:00 - 19:00	Icebreaker & Welcome Reception Videos on Egypt and NU Breakout Room Networking Opportunity and Virtual Socializing	V-Room A Zoom link https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09 PMI: 336 508 2496 Passcode: 395011
Tuesday – July 27, 2021		
Registration		
08:00 - 17:00	Registration (<i>The registration online link</i>)	
Conference Opening		
08:30 - 09:15	Welcome and Introductions (3 min) <i>Sherine Ahmed El Baradei, Conference Chair</i>	V-Room A Zoom link https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQ09 PMI: 336 508 2496 Passcode: 395011
	Welcome message from Nile University (5 min) <i>Tarek Khalil, Conference Chair and University President</i>	
	Welcome from ISEC Society (4 min) <i>Amarjit Singh, ISEC Society President</i>	
	Entertainment (5 min) <i>Egyptian cultural video</i>	
	Video Introduction to Nile University (5 min)	
	Introduction to the LADR Workshop (3 min) <i>Ulrike Quapp, Associate Editor, LADR</i>	
	Sponsor Presentation (10 min) <i>Heba Labib, TICO, Nile University</i>	
	Sponsor Presentation (5 min) <i>Amina Galal, Nile University Marketing Team</i>	
	Announcements (3 min) <i>Sherine Ahmed El Baradei, Conference Chair</i>	
09:15 - 09:20	5-Minute Break	
09:20 - 09:50	Keynote Speaker I: Prof. Dr.-Ing. Klaus Holschemacher , Institute Director, Structural Concrete Institute, HTWK Leipzig, University of Applied Sciences, Leipzig, Germany <i>Title: Timber-Concrete Composite – A High-Efficient and Sustainable Construction Method</i>	
Coffee Break 09:50 – 10:15 (Breakout Rooms) – V Room A		



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Tuesday, July 27, 2021, 10:15 – 12:15

Technical Session I

LADR Workshop I

co-sponsored by the
ASCE Construction Institute

	Track A	Track B	Track C	Track D
	<p>Moderator: Miroslav Todorov Co-Moderator: Dejan Dinevski IT Staff: Mark Young V-Room A Zoom link: https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVOcUVSQTO9 PMI: 336 508 2496, Passcode: 395011 I-A: Steel Structures</p>	<p>Moderator: Sorn Vimonsatit Co-Moderator: Swapan Saha IT Staff: Hadeel Ali V-Room B Zoom link: https://us02web.zoom.us/j/3666822714?pwd=UE9wZ1QvcG1FcEsvOEQ3ay9LVlswUT09 PMI: 366 682 2714, Passcode: 142731 I-B: Construction Safety and Risk Management</p>	<p>Moderator: Eugenio Pellicer Co-Moderator: Tamer Breakah IT Staff: Yassmine Marey V-Room C Zoom link: https://us02web.zoom.us/j/3055945850?pwd=anNKajJdudOU0WHZMamtaMW8waExjQT09 PMI: 305 594 5850, Passcode: 7eTTnh I-C: Infrastructure Engineering and Management</p>	<p>Moderator: Yiannis Vacanas Co-Moderator: Elizabeth Brogan IT Staff: Mujtaba Quadri V-Room D Zoom link: https://us02web.zoom.us/j/2303687928?pwd=dHVNVlJlc1BJeFVleWNOZ3FYUExOQT09 PMI: 230 368 7928, Passcode: R9fvM1 I-D: Contract and Claims // Maintenance Management</p>
1	<p>STR-07: EVALUATION METHOD FOR ALLOWABLE SHORT-TERM FLEXURAL STRENGTH AND YIELD STRENGTH OF CONCRETE-FILLED STEEL TUBULAR BEAM-COLUMNS Takashi Fujinaga, Tomoya Kawabata</p>	<p>CSA-03: EVALUATION OF SCAFFOLD ACCIDENTS DURING BUILDING MAINTENANCE WORKS AbdulLateef Olanrewaju, Xi Xuan Law, Christopher Nigel Preece</p>	<p>CPM-04: OPTIMIZING PRODUCTIVITY RATE TO MINIMIZE OVERDRAFT INTEREST PAYMENT IN INFRASTRUCTURE CONSTRUCTION PROJECTS Ahmed A. Okasha, Parastoo Eivazi Ziaei, Ahmed Hammad</p>	<p>LADR-727: MODELING WITH FUNCTIONS FOR CUMULATIVE IMPACT OF CHANGES Tong Zhao</p>
2	<p>AAE-03: A MODEL PROPOSAL FOR SELECTING THE STRUCTURAL SYSTEM Sinem Dagilgan, Seren Guven</p>	<p>CSA-05: MACHINE LEARNING APPLICATIONS IN CONSTRUCTION SAFETY LITERATURE Kerim Koc, Asli Pelin Gurgun</p>	<p>CON-26: DESIGN OF A CAPABILITY MATURITY FRAMEWORK FOR RESILIENT INFRASTRUCTURE MANAGEMENT IN RURAL MUNICIPALITIES Luyanda Ngomane, Nthatsi Khatleli</p>	<p>LADR-746: APPLICATION OF NATURAL LANGUAGE PROCESSING TO AUTOMATICALLY IDENTIFY EXCULPATORY CLAUSES IN CONSTRUCTION CONTRACTS Jaikrishna Padhy, Murali Jagannathan, Venkata Santosh Kumar Delhi</p>
3	<p>STR-10: INFLUENCE OF BOND AND FRICTION ON TENSILE STRENGTH OF PERFORATED STEEL PLATE CONNECTOR UNDER CONFINEMENT Yuka Nagaoka, Takashi Fujinaga, Teruhisa Tanaka</p>	<p>CSA-06: A REVIEW OF INTERNATIONAL STANDARDS FOR OCCUPATIONAL SAFETY AND HEALTH Pravin Sonkar, Sourabh Mayank, Sudhir Misra, Amarjit Singh</p>	<p>PRO-01: POTENTIAL FACTORS TO PROMOTE SUSTAINABLE PROCUREMENT IN ROAD INFRASTRUCTURE PROJECTS Debby Willar, Anak Agung Diah Parami Dewi, Febriane Makalew</p>	<p>LADR-673: ONTOLOGY FOR LINKING DELAY CLAIMS WITH 4D SIMULATION TO ANALYZE EFFECTS-CAUSES AND RESPONSIBILITIES Michel Guévremont, Amin Hammad</p>



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Technical Session I				LADR Workshop I co-sponsored by the ASCE Construction Institute
	Track A	Track B	Track C	Track D
4	STR-44: STRUCTURAL STRESS METHOD FOR FATIGUE DESIGN OF CONCRETE FILLED STEEL TUBULAR T-JOINTS UNDER AXIAL LOADING <i>Idris A. Musa</i>	RAD-07: BENEFIT-COST ANALYSIS FOR REDUCING THE VULNERABILITY OF THE HOUSING SERVICE SECTOR ASSOCIATED WITH NATURAL HAZARDS <i>KwangHyuk Im</i>	FAM-02: DYNAMIC ANALYSIS OF SUSTAINABLE PRACTICES ADOPTION IN ROAD INFRASTRUCTURE DEVELOPMENT <i>Angie Ruiz, Jose Guevara</i>	LADR-732: IDENTIFICATION OF BIM DIMENSION-SPECIFIC CONTRACT CLAUSES IN EPC TURNKEY PROJECTS <i>Vijayeta Malla, Murali Jagannathan, Venkata Santosh Kumar Delhi</i>
5	STR-27: EFFECT OF STRENGTH OF FILLED-CONCRETE ON STRUCTURAL PERFORMANCE OF CONTINUOUS BEAM-TYPE SQUARE CFST BEAM-TO-COLUMN CONNECTION <i>Koki Doi, Takashi Fujinaga</i>	RAD-09: A RESILIENCE-BASED ASSESSMENT OF THE PERFORMANCE OF RESIDENTIAL COMMUNITIES SUBJECT TO HURRICANE HAZARD <i>Ahmed U. Abdelhady, Seymour M.J. Spence, Jason McCormick</i>	CON-36: BRIDGE MAINTENANCE DECISION-MAKING MODEL <i>Wisalee Nimmahnpachrin, Ghada M. Gad</i>	CON-27: CLAIMS AND DISPUTES MANAGEMENT: UNDERLYING CAUSES IN MEGA CONSTRUCTION PROJECTS <i>Dikeledi Matseke, Nthatsi Khatleli</i>
6	STR-09: REINFORCING I-BEAMS WITH WEB OPENINGS USING FILLET-WELDED PERFORATED PLATE <i>Tomoya Kawabata, Takashi Fujinaga</i>	RAD-01: MULTI-HAZARD HURRICANE VULNERABILITY MODEL TO ENABLE RESILIENCE-INFORMED DECISION <i>Omar M. Nofal, John W. van de Lindt, Guirong Yan, Sara Hamideh, Casey Dietrich</i>	INF-05: FRAMEWORK FOR PLANNING CAPACITIES TO MAXIMIZE THE FEASIBLE RESILIENCE OF NETWORK INFRASTRUCTURE SYSTEMS <i>Arkaprabha Bhattacharyya, Makarand Hastak</i>	LADR-729: LITIGATION RISK TRANSFER MECHANISMS IN CONSTRUCTION DISPUTE RESOLUTION PROCESS: A CROSS-CASE ANALYSIS <i>Murali Jagannathan, Ulrike Quapp, Venkata Santosh Kumar Delhi</i>
7	STR-55: RESEARCH INTO THE DEVELOPMENT OF A RESPONSE MODIFICATION FACTOR FOR DIAGRID STRUCTURES <i>Devindar Aulakh, Yasser Salem, Giuseppe Lomiento</i>	RAD-04: AN ITERATIVE HDMR APPROACH FOR ENGINEERING RELIABILITY ANALYSIS <i>Qian Wang</i>	INF-08: INFRASTRUCTURE DEVELOPMENT AND ABANDONMENT <i>Mercy Ogunnusi, Huda Salman, Richard Laing</i>	FAM-09: MAINTENANCE MANAGEMENT DETERMINANTS APPRAISAL OF HOSPITAL BUILDINGS <i>Christtestimony Jesumoroti, Khor Soo</i>
8		PRO-02: AWARENESS OF CRYPTOCURRENCIES AMONG CONSTRUCTION PROFESSIONALS <i>Mehmet Ilker Genc, Asli Pelin Gurgun</i>	CON-09: PROJECT BUNDLING IN TRANSPORTATION CONSTRUCTION <i>Daniel D'Angelo, R. Edward Minchin Jr.</i>	LADR-735: THREATS TO CONTRACTOR'S CASH FLOW UNDER RE-MEASURED PUBLIC WORKS CONTRACTS <i>Omar Kandil, Nabil Yehia, Tarek Hamed</i>
Lunch Break: 12:15 – 13:30				



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Tuesday, July 27, 2021, 13:30 – 15:30

Technical Session II

LADR Workshop II

co-sponsored by the
ASCE Construction Institute

	Track A	Track B	Track C	Track D
	Moderator: Hossein Askarinejad Co-Moderator: Ahmed El-Kadi IT Staff: Mark Young V-Room A Zoom link: https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdEIQMWV0cUVSQOT09 PMI: 336 508 2496, Passcode: 395011 II-A: Concrete Materials and Soil Mechanics	Moderator: Sudhir Misra Co-Moderator: Ghada Gad IT Staff: Hadeel Ali V-Room B Zoom link: https://us02web.zoom.us/j/3666822714?pwd=UE9wZ1QvcG1FcEsvOEQ3ay9LviSwUT09 PMI: 366 682 2714, Passcode: 142731 II-B: Construction Management and Urban Planning	Moderator: Passant Massoud Co-Moderator: Tamer H Kasem IT Staff: Yassmine Marey V-Room C Zoom link: https://us02web.zoom.us/j/3055945850?pwd=anNKajdud0U0WHZMamtaMW8waExjQT09 PMI: 305 594 5850, Passcode: 7eTTnh II-C: Environment and Sustainability	Moderator: Venkata Santosh Kumar Delhi Co-Moderator: Asli Pelin Gurgun IT Staff: Mujtaba Quadri V-Room D Zoom link: https://us02web.zoom.us/j/2303687928?pwd=dHVNVlJlc1BJeFVleWNOZ3FYUEXOQT09 PMI: 230 368 7928, Passcode: R9fvM1 II-D: Procurement, Dispute Resolution and Safety
1	MAT-12: MECHANICAL PROPERTIES OF RECYCLED COARSE AGGREGATE CONCRETE REINFORCED WITH STEEL FIBERS Nancy Kachouh, Hilal El-Hassan, Tamer El-Maaddawy	CON-11: FINANCIAL RATIO ANALYSIS IN CONSTRUCTION INDUSTRY: AN INVESTIGATION USING MACHINE LEARNING Osama Salah, Maged Georgy, Atef Ragab	AAW-02: AN INVESTIGATION OF GREY WATER ONSITE REUSE POTENTIAL IN AN ARID ENVIRONMENT Mohamed Hamouda, Jamila Al Mansoori, Maitha Al Nuaimi, Muna Alsaedi, Mouza Al Shamsi	LADR-731: TOWARDS BETTER APPLICABILITY OF PUBLIC PROCUREMENT LAW: DELAY CLAIMS BY THE CONTRACTOR AND LIMIT OF COMPENSATION UNDER THE PERFORMANCE GUARANTEE Amr Mohammad Abu Helw, A. Samer Ezeldin
2	MAT-13: EFFECTS OF REPLACING CEMENT BY DATE PALM TREES WASTES ON CONCRETE PERFORMANCE Ahmad S. E. Nassef, Kalifa H. Al-Muqbali, Sheikha M. Al Naqabi	CON-18: DEVELOPMENT OF A WORKMANSHIP MANAGEMENT SYSTEM FOR PERFORMANCE APPRAISAL OF CONSTRUCTION PROJECTS Rakesh Sookoo, Abraham Mwasha, Joseph Iwaro	AAW-06: GENERATING A STREAM WITH A STABLE FORMALDEHYDE CONCENTRATION IN THE LABORATORY Mitham Al-Faliti, Ashraf Aly Hassan, Bruce Dvorak	LADR-738: RECENT PARTY WALL DISPUTES Dan Eschenasy
3	MAT-15: EXPERIMENTAL STUDY ON THE SULFURIC ACID RESISTANCE OF LOW CARBON CONCRETE Hiyori Ishizuka, Hiromi Fujiwara, Masanori Maruoka, Tao Wang, Shintaro Tanaka	CON-23: INDICATORS FOR CONSTRUCTION PROJECTS SUPPLY CHAIN ADAPTABILITY USING BLOCKCHAIN TECHNOLOGY: A REVIEW Stanley Okangba, Nthatisi Khatleli, David Root	SUS-19: ENERGY SUPPORT IN THE RESIDENTIAL SECTOR USING BUILDING INTEGRATED PHOTOVOLTAIC (BIPV) A REVIEW Abdullah Qahtani, Bambang Trigunarsyah, Thomas Simko	PND-01: CASE STUDY: CONSTRUCTABILITY REVIEW PROCESS OF A LARGE PUBLIC TRANSPORTATION AGENCY R. Edward Minchin Jr., Yifeng Tian



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Technical Session II				LADR Workshop II co-sponsored by the ASCE Construction Institute
	Track A	Track B	Track C	Track D
4	MAT-16: EXPERIMENTAL STUDY ON DURABILITY OF ROOM TEMPERATURE CURING UFC MORTAR <i>Haruka Murakami, Hiromi Fujiwara, Masanori Maruoka, Takafumi Watanabe, Koji Satori</i>	CPM-05: ACTANTS INFLUENCING THE SUCCESSFUL COMPILATION OF ECONOMIC FEASIBILITY STUDIES: THE DEVELOPERS' PERSPECTIVE <i>Rolien Terblanche, David Root, Ria Vosloo</i>	CPS-01: MECHANICAL ANALYSIS OF A SUSTAINABLE BUILDING PREFABRICATED ELEMENT BASED ON A STABILIZED RESIDUAL QUARRY SLUDGE <i>Nicolas Zapata, Andres Restrepo, Santiago Marin, Juan Torrenegra, Juan Ochoa, Yhan Arias</i>	LADR-743: DRIVER'S COMPLIANCE IN WORK ZONES: TWO-LANE RURAL ROADS - VS.- FREEWAYS <i>Didier M. Valdés-Díaz, Carla López del Puerto, Benjamín Colucci-Ríos, Alberto M. Figueroa-Medina, Edgardo Concepción-Carrasco, Lorena Sierra-Betancur, and Yindhira Taveras-Canela</i>
5	GFE-01: ON THE SHEAR STIFFNESS DECREASE OF SANDY SOILS DUE TO PARTICLE CRUSHING PROGRESS <i>Haruyuki Yamamoto</i>	CPM-01: QUANTIFYING CONTRACTORS' QUALIFICATIONS USING PAIRWISE COMPARISON IN THE BEST VALUE PROCUREMENT METHOD <i>Amira Eltahan, Elyar Pourrahimian, Fatima Alsakka, Maram Nomir, Ahmed Hammad</i>	CON-22: EXPLORATION OF SYNERGIES BETWEEN ACADEMIC RESEARCH AND ACTUAL PRACTICE FOR IMPROVED CONSTRUCTION WASTE MANAGEMENT <i>Rana Rabnawaz Ahmed, Xueqing Zhang</i>	LADR-741: COMPARISON OF MEDIATION SYSTEMS IN THE CONSTRUCTION INDUSTRY OF TWO EUROPEAN COUNTRIES <i>Vaidotas Trinkūnas, Ulrike Quapp, Nerija Banaitienė, Klaus Holschemacher, Eva Trinkūnienė, and Audrius Banaitis</i>
6	GFE-06: MODEL PARAMETERS FOR THE DYNAMIC BEHAVIOR OF BURIED PIPES <i>Miroslav Todorov</i>	FAM-08: ANALYSIS OF MEASURES TO REDUCE DEFECTS IN HOSPITAL BUILDINGS <i>AbdulLateef Olanrewaju, Shao Tee, Khor Soo, Christtestimony Jesumoroti</i>	SUS-01: SUSTAINABILITY IN PPPS: A NETWORK ANALYSIS <i>Gabriel Castelblanco, Jose Guevara, Paula Mendez-Gonzalez</i>	LADR-739: DISPUTE RESOLUTION IN THE MINING INDUSTRY: LESSONS LEARNED FROM THE EFFECTS OF BLASTING ON NEARBY STRUCTURES <i>Krishna Kisi, Purushotham Tukkaraja, Kenneth Eltschlager</i>
7	GFE-02: ANALYTICAL SOLUTION FOR NONLINEAR INTERACTION OF EULER BEAM RESTING ON A TENSIONLESS SOIL <i>Tamer Heshmat, Mohamed ElShabrawy</i>	PND-02: URBAN PLANNING MEASURES FOR SMART CITY DEVELOPMENT <i>Jirawan Klaylee, Pawinee lamtrakul, Nuwong Chollacoop</i>	SUS-04: SUSTAINABLE BUILDING PREFABRICATED ELEMENT BASED ON STABILIZED RESIDUAL QUARRY SLUDGE AND ITS HEAT TRANSFER ANALYSIS <i>Andres Restrepo, Nicolas Zapata, Juan Torrenegra, Yhan Arias, Juan Ochoa</i>	LADR-749: SURVEY OF STATE TRANSPORTATION AGENCIES' DESIGN INFORMATION BEST PRACTICES ON LUMP SUM DESIGN-BUILD PROJECTS DURING PROCUREMENT <i>Elizabeth Brogan, Bandana Shrestha, Caroline M. Clevenger, Pramen P. Shrestha</i>
8	MAT-05: DESIGNING A FLEXIBLE PAVEMENT DESIGN TOOL USING THE MEPDG APPROACH <i>Safwan Khedr, Maram Saudy, Hebatalla Gad, Mostafa Ali, Noura Soussa, Omar El Marakby, Rahma Ibrahim, Yomma Abdel Aziz</i>	SUS-11: PARTICIPATORY PLANNING APPROACH TOWARDS SMART SUSTAINABLE CITY DEVELOPMENT <i>Pawinee lamtrakul, Jirawan Klaylee, I-Soon Ruengratanaumporn</i>		LADR-733: DESIGN LIABILITY UNDER FIDIC RED BOOK AND SOME CIVIL LAW JURISDICTIONS <i>Omar Kandil, Nabil Yehia, Tarek Hamed</i>
Coffee Break 15:30 – 16:00 (Breakout Rooms) – V Room A				



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Wednesday – July 28, 2021

9:00 – 09:30	Keynote Speaker II: Dr. Maged Mahmoud Hamed , Lead Environmental Specialist and Regional Safeguards Coordinator, World Bank, West and Central Africa Region <i>Title: Cleaner and More Resilient Projects</i>	V-Room A Zoom link: https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09 PMI: 336 508 2496 Passcode: 395011
Coffee Break 09:30 – 10:00 (Breakout Rooms) – V Room A		

Wednesday – July 28, 2021, 10:00 – 12:00

Technical Session III

	Track A	Track B	Track C	Track D
	Moderator: Klaus Holschemacher Co-Moderator: Venkata Delhi IT Staff: Mark Young V-Room A Zoom link: https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWV0cUVSQT09 PMI: 336 508 2496 Passcode: 395011 III-A: Structural Systems and Optimization	Moderator: Amarjit Singh Co-Moderator: Asli Pelin IT Staff: Hadeel Ali V-Room B Zoom link: https://us02web.zoom.us/j/3666822714?pwd=UE9wZ1QvcG1FcEsvOEQ3ay9LVjswUT09 PMI: 366 682 2714 Passcode: 142731 III-B: Architectural Engineering and Green Buildings	Moderator: Edward Minchin Co-Moderator: Debby Willar IT Staff: Yasmine Marey V-Room C Zoom link: https://us02web.zoom.us/j/3055945850?pwd=anNKajdud0U0WHZMamtaMW8waExjQT09 PMI: 305 594 5850 Passcode: 7eTTnh III-C: Structural Dynamics and Earthquake Engineering	Moderator: Siamak Yazdani Co-Moderator: Dejan Dinevski IT Staff: Mujtaba Quadri V-Room D Zoom link: https://us02web.zoom.us/j/2303687928?pwd=dHVNVlJlc1BJeFVleWNOZ3FYUEX0QQT09 PMI: 230 368 7928 Passcode: R9fvM1 III-D: Education and Work Environment // Water Engineering
1	CON-04: STUDY ON SAFETY OF PULLING DOWN COLUMNS IN BUILDING DEMOLITION Hiroki Takahashi, Seiji Takanashi, Tomohito Hori	AAE-15: THE APPLICATION OF MULTIPLE-OBJECTIVE GENETIC ALGORITHMS FOR CONTROLLING SOUND QUALITY BY ARCHITECTURAL FORM DESIGN Surakist Hunpaisarn, Chawee Busayarat	STR-35: COMPARATIVE SEISMIC PERFORMANCE ASSESSMENT OF UHPC JACKETING AND SCED BRACING TECHNIQUES Roshen Joseph, Aman Mwafy, M. Shahria Alam	AAW-01: DETERMINING THE EFFECT OF CHANGING CHANNEL GEOMETRY OF IRRIGATION CANALS ON DISSOLVED OXYGEN CONCENTRATION Sherine Elbaradei, Mai Alsadeq, Ahmed Abodonya



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Technical Session III				
	Track A	Track B	Track C	Track D
2	STR-22: PRELIMINARY STUDY ON NOVEL BEAM-TO-COLUMN CONNECTION BASED ON SMA PLATE Yam MCH, Zhang Ping, Huang Yun, Zhao Qingyang, Ke Ke	AAE-14: PERFORMANCE-BASED DESIGN FOR ACTIVE LEARNING SPACE AND CO-RESEARCH LABS: ROOFTOP EXTENSION IN AN ARCHITECTURE SCHOOL Santirak Prasertsuk, Patana Rattananavathong	STR-47: EFFECT OF ASPECT RATIO ON THE BEHAVIOR OF GFRP-RC CIRCULAR COLUMNS UNDER SIMULATED SEISMIC LOADING Amr E. M. Abdallah, Ehab F. El-Salakawy	CEN-01: MODELING COMPLEX FLOW INDUCED BY WATER WAVES PROPAGATION OVER SUBMERGED SQUARE OBSTACLES Mona A. Tawab, Tamer Heshmat, Andreas Schlenkhoff
3	STR-14: AN RBF BASED HIGH-DIMENSIONAL MODEL REDUCTION APPROACH IN BUILDING OPTIMIZATION Qian Wang, Joseph Nafash, Paul Owens	AAE-18: BIOCLIMATIC OPTIMIZATION: SKYLIGHT GROUND FLOOR NEW BUILDING, UDLA PARK TORRE II Mauro Cepeda Ortiz, Santiago Morales, Viviana Cabrera	AAE-22: INNOVATIVE PRE-FABRICATED CONNECTORS FOR BAMBOO ARCHITECTURE Supreedee Rittironk	AAW-08: EFFECT OF COVERING IRRIGATION CHANNELS ON TOTAL DISSOLVED SOLIDS AND TOTAL SUSPENDED SOLIDS Sherine ElBaradei, Mai AlSadeq, Sarah Abdel Kader
4	STR-19: A NEW ELEMENT-BASED METHOD FOR SOLVING STRUCTURAL TOPOLOGY OPTIMIZATION PROBLEMS WITH NON-UNIFORM MESHES Kuang-Wu Chou, Chang-Wei Huang	CPM-02: FACTORS THAT AFFECT THE JOB BURNOUT AMONG ARCHITECTS AT DESIGN FIRMS Gulden Gumusburun Ayalp, Nur Bozhuyuk, Ilhami Ay	STR-49: SEISMIC PERFORMANCE OF GFRP-RC RECTANGULAR COLUMNS: NUMERICAL STUDY Yasser M. Selmy, Fangxin Ye, Ehab F. El-Salakawy	AAE-02: IMPACT OF THE RAPID INCREASE IN THE NUMBER OF UNIVERSITIES ON UNIVERSITY STRUCTURE AND SOCIETY Irem Kose, Dilsat Deniz Bindal
5	CON-05: EXPERIMENTAL STUDY ON USE OF FALL PREVENTION MEMBERS IN WALL AND COLUMN DEMOLITION Seiji Takanashi, Hiroki Takahashi, Tomohito Hori	AAW-09: OBSTACLES OF IMPLEMENTING GREEN MAINTENANCE MANAGEMENT IN HOSPITAL BUILDINGS AbdulLateef Olanrewaju, Yee Jia Teo, Fikri Sarajul Mohamed	GFE-05: VERIFICATION AND RESULTS FROM MODEL INVESTIGATION OF DYNAMIC BEHAVIOR OF BURIED PIPES Miroslav Todorov	EPE-02: LEGAL TOPICS IN BUILDING-RELATED EDUCATION Ulrike Quapp, Klaus Holschemacher
6	STR-46: AN INNOVATIVE BOUNDARY ELEMENT FORMULATION FOR BUILDING SLABS Ahmed U. Abdelhady, Youssef F. Rashed	SUS-05: A STEP FORWARD ENHANCING GREEN BUILDINGS IN DEVELOPING COUNTRIES Nahla Hazem, Irene Samy Fahim	STR-60: SEISMIC ASSESSMENT OF CONTEMPORARY VERSUS OLD URBAN FRAME BUILDINGS Abdelrahman Ashri, Anas Issa, Aman Mwafy	EPE-08: FIELD TRIPS: CONSTRUCTION CLASSROOMS WITHOUT ROOF Saeed Rokooei, Samira Rokooei
7	STR-50: RESPONSE OF CONCRETE DEEP BEAMS REINFORCED WITH GFRP BARS AROUND REGIONS OF DISCONTINUITY Somoud Arabasi, Tamer El-Maaddawy, Ahmed ElZaher	SUS-09: FUZZY GREEN CONSTRUCTION FOR MEASURING ENVIRONMENTAL PERFORMANCES OF CONSTRUCTION PROJECTS Biemo Woerjanto Soemardi, Andira Triana Putri	STR-42: REINFORCEMENT METHOD OF COMPOSITE SEISMIC RESISTANT WALL BY STRUCTURAL PLYWOOD AND STEEL MEMBERS Seine Kono, Haruka Kataoka, Takumi Ito	FAM-04: FACTORS INFLUENCING USER SATISFACTION: CASE STUDIES OF TEN COWORKING SPACES Chaiwat Riratanaphong



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Technical Session III				
	Track A	Track B	Track C	Track D
8	STR-39: MECHANICAL PROPERTIES AND RESISTANT MECHANISM AROUND BEARING JOINT BETWEEN PLYWOOD AND BOLT OF BUILDING HYBRID STRUCTURES <i>Haruko Kataoka, Takumi Ito</i>	AAE-17: AN INNOVATIVE COOLING ROOF REDUCING THE ENERGY DEMAND FOR A NON-RESIDENTIAL BUILDING IN TROPICAL CLIMATE <i>Mauro Cepeda Ortiz</i>	STR-12: FULL-SCALE EXPERIMENTAL TESTING TO INVESTIGATE WIND-INDUCED VIBRATIONS ON CURTAIN WALL SYSTEMS <i>Krishna Sai Vutukuru, Kehinde J. Alawode, Ali Bakhtiari, Amal Elawady, Seung Jae Lee, Arindam Gan Chowdhury, Guido Lori</i>	AAE-19: BUILDING PERFORMANCE EVALUATION OF AN EDUCATIONAL BUILDING ON SUBTROPICAL HIGHLAND CLIMATE <i>Marco Santiago Morales</i>
Coffee Break 12:00 – 12:15 (Breakout Rooms) – V Room B				
Wednesday – July 28, 2021				
Closing Session and Awards				
12:15 – 12:55	Address of Conference Chair <i>Sherine El Baradei (5 min)</i>			V-Room B Zoom link: https://us02web.zoom.us/j/3666822714?pwd=UE9wZ1QvcG1FcEsvOEQ3ay9LViwUT09 PMI: 366 682 2714 Passcode: 142731
	Announcement of Best LADR Presentation Awards <i>Ulrike Quapp (2 min)</i>			
	Announcement of Best ISEC Presentation Awards <i>Ahmed Abodonya (10 min)</i>			
	Remarks by the Chief ISEC Copy Editor <i>Asli Gurgun (2 min)</i>			
	Presentation of EURO MED SEC 4 Conference (June 2022, Leipzig, Germany) <i>Klaus Holschemacher (5 min.)</i>			
	Presentation of ASEA SEC 6 Conference (Nov/Dec 2022, Sydney, Australia) <i>Sorn Vimonsatit (5 min.)</i>			
	Presentation of ISEC-12 Conference (July 2023, Sofia, Bulgaria) <i>Miroslav Todorov (5 min.)</i>			
	Closing Remarks by ISEC Society <i>Frank Yazdani (3 min.)</i>			
	Announcements <i>Sherine El Baradei (3 min.)</i>			
Lunch Break 12:55 – 14:00				
14:00 – 17:00	Technical Tour I: Food Production Factory			
18:00 – 21:00	Dinner Banquet: Nile Cruise Dinner and Show			



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



Thursday, July 29, 2021

09:00 – 12:00	Post Conference Dispute Resolution Workshop: Dr. Yiannis Vacanas , Fellow member of the Chartered Institute of Arbitrators, and member of the Society of Construction Law <i>Title:</i> <i>Arbitration: An Overview of the Main Alternative Dispute Resolution Method</i>	V-Room A Zoom link: https://us02web.zoom.us/j/3365082496?pwd=MWh4WjhPbFZoS2RTdElQMWVOCjUjVSQT09 PMI: 336 508 2496 Passcode: 395011
	Technical Tour II: Gabal El Asfar Treatment plant	
18:00 – 22:00	Cultural Tour 1: Sound and Light Show at Giza Pyramids	

Friday, July 30, 2021

08:00 – 14:00	Cultural Tour 2: Old Egyptian Museum
---------------	--------------------------------------

Saturday, July 31, 2021

08:00 – 16:00	Cultural Tour 3: Old Cairo
---------------	----------------------------



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



World Times Corresponding to ISEC-11 Events

	Cairo Date	Cairo Time	Central European Summer Time	UK and British Isles // West Africa Time	Brazilian Time	EST - USA // Chile Time	CST - USA // Quito Time	MST - USA
Event	Event Start Time							
Welcome Reception	26-Jul	5:00 PM	5:00 PM	4:00 PM	12:00 PM	11:00 AM	10:00 AM	9:00 AM
Opening Session	27-Jul	8:30 AM	8:30 AM	7:30 AM	3:30 AM	2:30 AM	1:30 AM	12:30 AM
Keynote Speech I	27-Jul	9:20 AM	9:20 AM	8:20 AM	4:20 AM	3:20 AM	2:20 AM	1:20 AM
Coffee Break and Break Out Rooms	27-Jul	9:50 AM	9:50 AM	8:50 AM	4:50 AM	3:50 AM	2:50 AM	1:50 AM
Tech Session I	27-Jul	10:15 AM	10:15 AM	9:15 AM	5:15 AM	4:15 AM	3:15 AM	2:15 AM
Lunch Break	27-Jul	12:15 PM	12:15 PM	11:15 AM	7:15 AM	6:15 AM	5:15 AM	4:15 AM
Tech Session II	27-Jul	1:30 PM	1:30 PM	12:30 PM	8:30 AM	7:30 AM	6:30 AM	5:30 AM
Coffee Break and Break Out Rooms	27-Jul	3:30 PM	3:30 PM	2:30 PM	10:30 AM	9:30 AM	8:30 AM	7:30 AM
Keynote Speech II	28-Jul	9:00 AM	9:00 AM	8:00 AM	4:00 AM	3:00 AM	2:00 AM	1:00 AM
Coffee Break and Break Out Rooms	28-Jul	9:30 AM	9:30 AM	8:30 AM	4:30 AM	3:30 AM	2:30 AM	1:30 AM
Tech Session III	28-Jul	10:00 AM	10:00 AM	9:00 AM	5:00 AM	4:00 AM	3:00 AM	2:00 AM
Coffee Break and Break Out Rooms	28-Jul	12:00 PM	12 noon	11:00 AM	7:00 AM	6:00 AM	5:00 AM	4:00 AM
Closing Session	28-Jul	12:15 PM	12:15 PM	11:15 AM	7:15 AM	6:15 AM	5:15 AM	4:15 AM
Lunch Break	28-Jul	12:55 PM	12:55 PM	11:55 AM	7:55 AM	6:55 AM	5:55 AM	4:55 AM
Dispute Resolution W'shop	29-Jul	9:00 AM	9:00 AM	8:00 AM	4:00 AM	3:00 AM	2:00 AM	1:00 AM



The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



World Times Corresponding to ISEC-11 Events (continued)

	Cairo Date	Cairo Time	PST - USA	HST - USA	New Zealand Time	Eastern Australia Time	Japan Time
Event	Event Start Time						
Welcome Reception	26-Jul	5:00 PM	8:00 AM	5:00 AM	3:00 AM	1:00 AM	12:00 AM
Opening Session	27-Jul	8:30 AM	11:30 AM	8:30 PM	6:30 PM	4:30 PM	3:30 PM
Keynote Speech I	27-Jul	9:20 AM	12:20 AM	9:20 PM	7:20 PM	5:20 PM	4:20 PM
Coffee Break and Break Out Rooms	27-Jul	9:50 AM	12:50 AM	9:50 PM	7:50 PM	5:50 PM	4:50 PM
Tech Session I	27-Jul	10:15 AM	1:15 AM	10:15 PM	8:15 PM	6:15 PM	5:15 PM
Lunch Break	27-Jul	12:15 PM	3:15 AM	12:15 AM	10:15 PM	8:15 PM	7:15 PM
Tech Session II	27-Jul	1:30 PM	4:30 AM	1:30 AM	11:30 PM	9:30 PM	8:30 PM
Coffee Break and Break Out Rooms	27-Jul	3:30 PM	6:30 AM	3:30 AM	1:30 AM	11:30 PM	10:30 PM
Keynote Speech II	28-Jul	9:00 AM	12:00 AM	9:00 PM	7:00 PM	5:00 PM	4:00 PM
Coffee Break and Break Out Rooms	28-Jul	9:30 AM	12:30 AM	9:30 PM	7:30 PM	5:30 PM	4:30 PM
Tech Session III	28-Jul	10:00 AM	1:00 AM	10:00 PM	8:00 PM	6:00 PM	5:00 PM
Coffee Break and Break Out Rooms	28-Jul	12:00 PM	3:00 AM	12:00 AM	10:00 PM	8:00 PM	7:00 AM
Closing Session	28-Jul	12:15 PM	3:15 AM	12:15 AM	10:15 PM	8:15 PM	7:15 PM
Lunch Break	28-Jul	12:55 PM	3:55 AM	12:55 AM	10:55 PM	8:55 PM	7:55 PM
Dispute Resolution W'shop	29-Jul	9:00 AM	12:00 AM	9:00 PM	7:00 PM	5:00 PM	4:00 PM



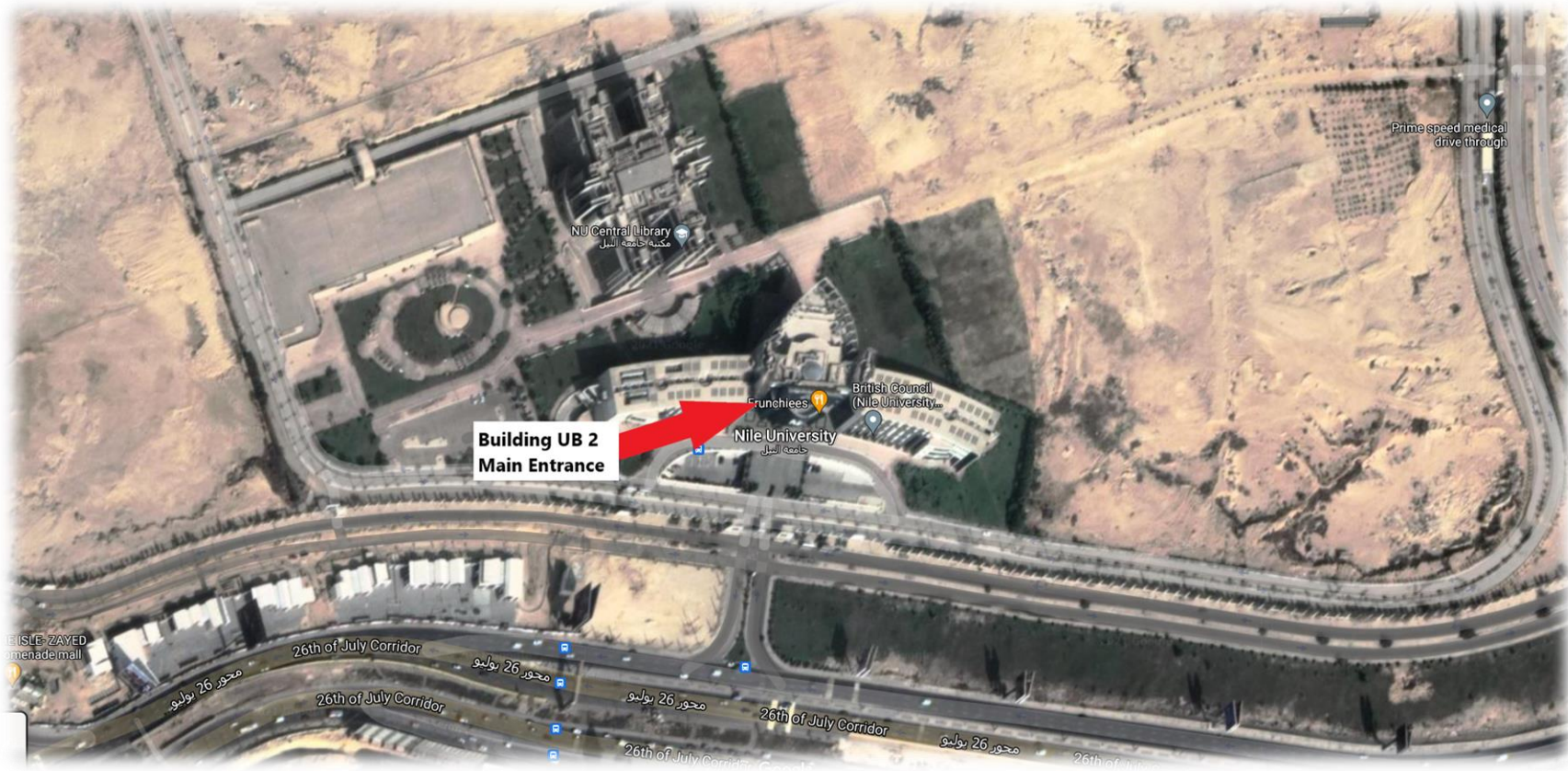
The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



World Times Corresponding to ISEC-11 Events (continued)

Event	Cairo Date	Cairo Time	Western Australia // Taiwan // Beijing // Hong Kong Time	Thailand Time	India Time	UAE Time	Eastern European Summer // West Asia // Saudi Arabia & Kuwait Time
Welcome Reception	26-Jul	5:00 PM	11:00 PM	10:00 PM	8:30 PM	7:00 PM	6:00 PM
Opening Session	27-Jul	8:30 AM	2:30 PM	1:30 PM	12:00 PM	10:30 AM	9:30 AM
Keynote Speech I	27-Jul	9:20 AM	3:20 PM	2:20 PM	12:50 PM	11:20 AM	10:20 AM
Coffee Break and Break Out Rooms	27-Jul	9:50 AM	3:50 PM	2:50 PM	1:20 PM	11:50 AM	10:50 AM
Tech Session I	27-Jul	10:15 AM	4:15 PM	3:15 PM	1:45 PM	12:15 PM	11:15 AM
Lunch Break	27-Jul	12:15 PM	6:15 PM	5:15 PM	3:45 PM	2:15 PM	1:15 PM
Tech Session II	27-Jul	1:30 PM	7:30 PM	6:30 PM	5:00 PM	3:30 PM	2:30 PM
Coffee Break and Break Out Rooms	27-Jul	3:30 PM	9:30 PM	8:30 PM	7:00 PM	5:30 PM	4:30 PM
Keynote Speech II	28-Jul	9:00 AM	3:00 PM	2:00 PM	12:30 PM	11:00 AM	10:00 AM
Coffee Break and Break Out Rooms	28-Jul	9:30 AM	3:30 PM	2:30 PM	1:00 PM	11:30 AM	10:30 AM
Tech Session III	28-Jul	10:00 AM	4:00 PM	3:00 PM	1:30 PM	12:00 PM	11:00 AM
Coffee Break and Break Out Rooms	28-Jul	12:00 PM	6:00 PM	5:00 PM	3:30 PM	2:00 PM	1:00 PM
Closing Session	28-Jul	12:15 PM	6:15 PM	5:15 PM	3:45 PM	2:15 PM	1:15 PM
Lunch Break	28-Jul	12:55 PM	6:55 PM	5:55 PM	4:25 PM	2:55 PM	1:55 PM
Dispute Resolution W'shop	29-Jul	9:00 AM	3:00 PM	2:00 PM	12:30 PM	11:00 AM	10:00 AM

Satellite View of Nile University





The Eleventh International Structural Engineering and Construction Conference
ISEC 11- Interdisciplinary Civil and Construction Engineering Projects
Cairo, Egypt, July 26-31, 2021



List of Moderators

FIRST NAME	LAST NAME	SESSION -TRACK
Hossein	Askarinejad	II-A: Concrete Materials and Soil Mechanics
Tamer	Breakah	I-C: Infrastructure Engineering and Management
Elizabeth	Brogan	I-D: Contract and Claims; Maintenance Management
Dejan	Dinevski	I-A: Steel Structures III-D: Education and Work Environment; Water Engineering
Ahmed	El-Kadi	II-A: Concrete Materials and Soil Mechanics
Ghada	Gad	II-B: Construction Management and Urban Planning
Tamer	Heshmat Kasem	II-C: Environment and Sustainability
Klaus	Holschemacher	III-A: Structural Systems and Optimization
Passant	Massoud	II-C: Environment and Sustainability
Edward	Minchin	III-C: Structural Dynamics and Earthquake Engineering
Sudhir	Misra	II-B: Construction Management and Urban Planning
Eugenio	Pellicer	I-C: Infrastructure Engineering and Management
Asli	Pelin Gurgun	II-D: Procurement, Dispute Resolution and Safety III-B: Architectural Engineering and Green Buildings
Swapan	Saha	I-B: Construction Safety and Risk Management
Venkata	Santosh Kumar Delhi	II-D: Procurement, Dispute Resolution and Safety III-A: Structural Systems and Optimization
Amarjit	Singh	III-B: Architectural Engineering and Green Buildings
Miroslav	Todorov	I-A: Steel Structures
Yiannis	Vacanas	I-D: Contract and Claims; Maintenance Management
Sorn	Vimonsatit	I-B: Construction Safety and Risk Management
Debby	Willar	III-C: Structural Dynamics and Earthquake Engineering
Siamak	Yazdani	III-D: Education and Work Environment; Water Engineering