

Orange County, California

ICCEPM 2013

The 5th International Conference on Construction Engineering and Project

<http://www.iccep-2013.org>

9-11, January, 2013



PROGRAM OVERVIEW

Jan. 9th (Wednesday)					
Start	End	Time (min)	Garden 1	Garden 2	Garden 4
8:30	8:50	20	Arrive / Registration		
8:50	9:00	10	Opening Ceremony		
9:00	10:00	60	Keynote Speech 1		
10:00	10:30	30	Morning Break		
10:30	12:00	90	S1	S2	S3
12:00	13:15	75	Lunch Break		
13:15	14:45	90	S4	S5	S6
14:45	15:15	30	Afternoon Break		
15:15	16:45	90	S7	S8	S9
17:00	19:00	120			
19:00	21:00	120			
Jan. 10th (Thursday)					
Start	End	Time (min)	Garden 1	Garden 2	Garden 4
8:30	8:50	20			
8:50	9:00	10			
9:00	10:00	60	Keynote Speech 2		
10:00	10:30	30	Morning Break		
10:30	12:00	90	S10	S11	S12
12:00	13:15	75	Lunch Break		
13:15	14:45	90	S13	S14	S15
14:45	15:15	30	Afternoon Break		
15:15	16:45	90	S16	S17	S18
17:00	19:00	120	KACEPMA Inaugural Meeting		
19:00	21:00	120	Banquet		
JCEPM Editorial Board Meeting (on Thursday between 1:15 and 2:25PM at Garden 3)					
Jan. 11th (Friday)					
Start	End	Time (min)	Garden 1	Garden 2	Garden 4
8:30	8:50	20			
8:50	9:00	10			
9:00	10:00	60	Keynote Speech 3		
10:00	10:30	30	Morning Break		
10:30	12:00	90	S19	S20	S21
12:00	13:15	75	Lunch Break		
13:15	14:45	90	S22	S23	S24

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TECHNICAL PROGRAM

<p>S1 10:30-12:00</p>	<p>BIM-Project Management GARDEN ROOM 1 Moderator: Dr. Bruce Gehrig</p>
	<p><u>BIM-BASED PLANNING OF TEMPORARY STRUCTURES FOR CONCRETE CONSTRUCTION</u> <i>Kyungki Kim and Jochen Teizer</i></p> <p><u>DEVELOPMENT OF MOBILE APPLICATION BASED RFID AND BIM FOR DEFECT MANAGEMENT ON CONSTRUCTION FIELD</u> <i>Oh-Seong Kwon, Hwi-Gyung Ko, Hee-Taek Park and Chan-Sik Park</i></p> <p><u>EXPLORING THE KEY FACTORS FOR BIM ACCEPTANCE IN CONSTRUCTION ORGANIZATIONS</u> <i>Seul-Ki Lee and Jung-Ho Yu</i></p> <p><u>INTEGRATION OF BIM AND SIMULATION FOR OPTIMIZING PRODUCTIVITY AND CONSTRUCTION SAFETY</u> <i>Evangelos Palinginis and Ioannis Brilakis</i></p>
<p>S2 10:30-12:00</p>	<p>Sustainability-Green Assessment GARDEN ROOM 2 Moderator: Dr. Yong Cho</p>
	<p><u>THE EFFECT OF LEED CERTIFIED BUILDING ON THE SURROUNDING NEIGHBORHOOD IN NEW YORK CITY</u> <i>Min Jae Suh, Annie Pearce and Young Hoon Kwak</i></p> <p><u>LEED PERCEPTION DISPARITIES: DESIGNERS VERSUS NON-DESIGNERS</u> <i>Hyun Woo Lee, Youngchul Kim, Doyoon Kim and Kunhee Choi</i></p> <p><u>Green Buildings to Sustain California’s Central Valley</u> <i>Yupeng Luo and Geoffrey Becker</i></p> <p><u>AUTOMATIC AS-IS BIM EXTRACTION FOR SUSTAINABLE SIMULATION OF BUILT ENVIRONMENTS</u> <i>Chao Wang and Yong Cho</i></p>
<p>S3 10:30-12:00</p>	<p>Project Safety GARDEN ROOM 4 Moderator: Dr. Chung-Suk Cho</p>
	<p><u>EVALUATING THE EFFECTIVENESS OF ECONOMIC INCENTIVES ON CONSTRUCTION CLIENTS’ HEALTH AND SAFETY PERFORMANCE – A DELPHI STUDY</u> <i>Innocent Musonda, Jan-Harm Pretorius and Theodore Conrad Haupt</i></p> <p><u>AUTOMATED HAZARD IDENTIFICATION FRAMEWORK FOR THE PROACTIVE CONSIDERATION OF CONSTRUCTION SAFETY</u> <i>Junhyuk Kwon, Byungil Kim, Sanghyun Lee and Hyoungkwan Kim</i></p> <p><u>AN APPLICATION OF THE ANALYTICAL HIERARCHY PROCESS (AHP) FOR SAFETY MEASUREMENT IN MALAYSIAN CONSTRUCTION INDUSTRIES</u> <i>Samad Doostdar Somarin and Zubaidah Binti Ismail</i></p> <p><u>A COMPARISON OF OLD AND NEW OSHA REGULATIONS ON CRANES AND DERRICKS USING COMPREHENSIVE GAP ANALYSIS</u> <i>Chung-Suk Cho and Francis Boafo</i></p>

<p>S4 13:15-14:45</p>	<p>BIM-Collaboration GARDEN ROOM 1 Moderator: Dr. Yong Han Ahn</p>
	<p><u>KNOTWORKING – A NOVEL BIM-BASED COLLABORATION PRACTICE IN BUILDING DESIGN PROJECTS</u> <i>Hannele Kerosuo, Tarja Mäki and Jenni Korpela</i></p> <p><u>APPLICATION OF IFC STANDARD IN INTEROPERABILITY AND ENERGY ANALYSIS</u> <i>Zhenhua Shen and Hyunjoo Kim</i></p> <p><u>Organizational Transformation Strategies for Adopting Building Information Modeling in Engineering-Construction Industry</u> <i>Yong Han Ahn, Young Hoon Kwak and Sung-Joon Suk</i></p> <p><u>ADOPTION OF VIRTUAL TECHNOLOGY TO BIM BASED PMIS</u> <i>Bong-Gyo Suh, Ghang Lee and Seok-Heon Yun</i></p>
<p>S5 13:15-14:45</p>	<p>Sustainability-Environmental Improvement GARDEN ROOM 2 Moderator: Dr. Hyoungkwan Kim</p>
	<p><u>INVESTMENT DECISIONS FOR CLEAN DEVELOPMENT MECHANISM UNDER UNCERTAIN ENERGY POLICIES USING REAL OPTION</u> <i>Taeil Park, Changyoon Kim and Hyoungkwan Kim</i></p> <p><u>THE PRIORITIZATION OF IMPROVEMENT NEEDS FOR UNDERGROUND CONSTRUCTION ENVIRONMENT</u> <i>Sanggyu Lee, Goune Kang, Chang-Won Kim, Hunhee Cho and Kyung-In Kang</i></p> <p><u>DEVELOPMENT OF ECO-VALUE ENGINEERING SUPPORT SYSTEM</u> <i>Sun-Im Kang, Jong-Hyeob Kim, Mi-A Jung, Chang-Taek Hyun and Sangwon Han</i></p> <p><u>IMPROVING DECISIONS IN WIND POWER SIMULATIONS USING MONTE CARLO ANALYSIS</u> <i>Devin Hubbard and Borinara Park</i></p>
<p>S6 13:15-14:45</p>	<p>Risk Management GARDEN ROOM 4 Moderator: Dr. Bonsang Koo</p>
	<p><u>INTEGRATING REAL OPTIONS WITH EARNED VALUE METHODS AS A DECISION SUPPORT TOOL FOR THE FINANCIAL EVALUATION OF ALTERNATIVE CONSTRUCTION METHODS</u> <i>Bonsang Koo</i></p> <p><u>AN EMPIRICAL ANALYSIS OF THE FINANCING BEHAVIOR OF LISTED CONSTRUCTION FIRMS IN KOREA STOCK MARKET - FOCUSED ON TESTING TWO CAPITAL STRUCTURE THEORIES</u> <i>Seung-Kyu Yoo, Jin-Sik Lim, Ha-Jung Yun, Jae Kyu Choi, Ju-Hyung Kim and Jae-Jun Kim</i></p> <p><u>A STUDY ON CONSTRUCTION SCHEDULE OPTIMIZATION INTEGRATING WITH CASH-FLOW</u> <i>Hyung-Guk Lee, Dong-Pil Shin, Dong-Eun Lee and Sung-Hoon An</i></p> <p><u>STEEL PLANT CONSTRUCTION (EPC) PROJECT CASE STUDY : FORENSIC LESSONS-LEARNED ANALYSIS AND SYSTEMS ENGINEERING IMPROVEMENT RECOMMENDATION</u> <i>Kyung-Bae Jin, Young-Ho Kim, Eul-Bum Lee and Suk-Hwan Suh</i>System Dynamics</p> <p><u>Modeling of Korean Lease Contract Chonse</u> <i>Myung-Gi Moon, Moonseo Park, Hyun-Soo Lee and Sungjoo Hwang</i></p>

<p>S7 15:15-16:45</p>	<p>BIM- Simulation GARDEN ROOM 1 Moderator: Dr. Yung-Ho Yu</p>
	<p><u>MECHANICAL DESIGN APPROACH FOR THE VIRTUAL MOCK-UP STUDY OF BUILDING ENVELOPE DESIGN AND FABRICATION</u> <i>Minjung Maing and Yongcheol Lee</i></p> <p><u>A SIMULATION MODEL FOR DECIDING AN OPTIMIZED 3D SHAPE OF CONSTRUCTION WORKSPACE CONSIDERING RESOURCES IN BIM ENVIRONMENT</u> <i>Hyeon-Seok Moon, Hyeon-Seung Kim, Leen-Seok Kang and Byung-Soo Kim</i></p> <p><u>A STUDY ON BIM-BASED 5D SIMULATION IN WEB ENVIRONMENT</u> <i>Jae-Bok Lim, Jae-Hong Ahn, Ju-Hyung Kim and Jae-Jun Kim</i></p> <p><u>IFCXML Based Automatic Data Input Approach for Building Energy Performance Analysis</u> <i>Karam Kim and Jung-Ho Yu</i></p> <p><u>System Dynamics Approach to Progress Payment Regulations</u> <i>Jeong Hoon Lee, Moonseo Park, Hyun-Soo Lee and Sungjoo Hwang</i></p>
<p>S8 15:15-16:45</p>	<p>Sustainability-Construction Equipment and Infrastructure GARDEN ROOM 2 Moderator: Dr. Taehoon Hong</p>
	<p><u>CONSTRUCTION EQUIPMENT ACTIVITY RECOGNITION FROM ACCELEROMETER DATA FOR MONITORING OPERATIONAL EFFICIENCY AND ENVIRONMENTAL PERFORMANCE</u> <i>Changbum Ahn, Sanghyun Lee and Feniosky Pena-Mora</i></p> <p><u>DEVELOPMENT OF THE ASSESSMENT FRAMEWORK FOR THE ENVIRONMENTAL IMPACTS</u> <i>Taehoon Hong, Changyoon Ji, Kwangbok Jeong and Joowan Park</i></p> <p><u>CO2 EMISSION MEASURING METHODOLOGY DEVELOPMENT FOR ACCURACY IMPROVEMENT OF CO2 EMISSION OF CONSTRUCTION EQUIPMENT</u> <i>Byung-Soo Km, Suk-Hyun Kwon, Won-Suk Jang, Sun-Chan Bae and Sang-Dae Park</i></p> <p><u>ENERGY SAVING EFFECT OF INTELLIGENT EXCAVATING SYSTEM</u> <i>Jeonghwan Kim, Seungwoo Pi and Jongwon Seo</i></p> <p><u>THE SCENARIOS OF GREENHOUSE GAS REDUCTION ON SEOUL NATIONAL UNIVERSITY</u> <i>Sooyoung Kim, Hyun-Soo Lee, Moonseo Park and Kwon-Sik Song</i></p>
<p>S9 15:15-16:45</p>	<p>Resource Management GARDEN ROOM 4 Moderator: Dr. John Hildreth</p>
	<p><u>EVALUATING MANAGEMENT STRATEGIES THROUGH ECONOMIC MODELING OF HEAVY EQUIPMENT FLEETS</u> <i>Tyler Johnson, John Hildreth and Scott Capps</i></p> <p><u>FORMWORK PRODUCTIVITY ANALYSIS MODEL FOR COST-EFFICIENT EQUIPMENT OPERATIONS</u> <i>Hyunsu Lim, Taehoon Kim, Hunhee Cho and Kyung-In Kang</i></p> <p><u>DATA ACQUISITION METHOD USING A SMARTPHONE ON CONSTRUCTION SITE</u> <i>Ahra Jo, Taehoon Kim, Hunhee Cho and Kyung-In Kang</i></p> <p><u>STUDY ON THE DESIGN OF USER MANUAL FOR THE EFFICIENT MAINTENANCE IN APARTMENT HOUSING</u> <i>Jung-Hee Jung, Hee-Chang Seo, Jae-Jun Kim and Ju-Hyung Kim</i></p> <p><u>A COMPREHENSIVE CASH MANAGEMENT MODEL FOR CONSTRUCTION PROJECTS USING ANT COLONY OPTIMIZATION</u> <i>Mohamed Abdel-Raheem, Maged E. Georgy, and Moheeb Ibrahim</i></p>

<p>S10 10:30-12:00</p>	<p>BIM- Innovative Technology GARDEN ROOM 1 Moderator: Dr. Thomas Korman</p>
	<p><u>CONNECTING TECHNOLOGY, INDUSTRY AND RESEARCH: A VERTICAL INTEGRAL PROJECT COURSE FOR BIM EDUCATION OPPORTUNITIES</u> <i>Fletcher Griffis, Mei Liu and Andrew Bates</i></p> <p><u>ANALYSIS ON GREEN BIM BASED ATRIUM SIZES IN THE EARLY DESIGN STAGE</u> <i>Seungwoo Jeong, Kweon-Hyoung Lee and Seung-Yeon Choo</i></p> <p><u>A STUDY ON THE CONSTRUCTION OF BIM DATA INTEROPERABILITY FOR ENERGY PERFORMANCE ASSESSMENT BASED ON BIM</u> <i>Jungsik Choi, Hyunjae Yoo and Inhan Kim</i></p> <p><u>DESIGN AND USE OF BUILDING INFORMATION MODELS FOR PREPLANNING COMMERCIAL BUILDING CONSTRUCTION ACTIVITIES</u> <i>Thomas Korman</i></p>
<p>S11 10:30-12:00</p>	<p>Sustainability- Modeling GARDEN ROOM 2 Moderator: Dr. Moonseo Park</p>
	<p><u>EPAR V2.0: AUTOMATED MONITORING AND VISUALIZATION OF POTENTIAL AREAS FOR BUILDING RETROFIT USING THERMAL CAMERAS AND COMPUTATIONAL FLUID DYNAMICS (CFD) MODELS</u> <i>Youngjib Ham and Mani Golparvar-Fard</i></p> <p><u>SYSTEM MODELING OF ON-SITE ENERGY CONSUMPTION PROFILE IN CONSTRUCTION SITES AND A CASE STUDY OF EARTH MOVING</u> <i>Kyoo-Jin Yi</i></p> <p><u>COST-EFFECTIVE MODEL FOR ENERGY SAVING IN SUPER-TALL BUILDING</u> <i>Kwonsik Song, Moonseo Park, Hyun-Soo Lee, Sooyoung Kim and Jinho Shin</i></p> <p><u>NPV-BASED 3D ARRAY DESIGN SYSTEM OF ROOF-TOP PHOTOVOLTAIC</u> <i>Se-Jong Kim, Cho Dong-Hyun, Hyung-Jin Park, Hee-Ro Yoon and Kyo-Jin Koo</i></p> <p><u>A METHOD FOR PREDICTING THE ENERGY CONSUMPTION OF A BUILDING IN EARLY STAGE OF DESIGN</u> <i>Ji-Yeon Seo, Su-Kyung Cho, Yeon-Woong Jung, Hyung-Jin Kim, Jae Ho, Cho and Jae-Youl Chun</i></p>
<p>S12 10:30-12:00</p>	<p>International/ Social Issues GARDEN ROOM 4 Moderator: Dr. Jae-Ho Pyeon</p>
	<p><u>A QUANTITATIVE APPROACH FOR ASSESSING THE OVERSEAS BUSINESS CAPABILITIES OF CONSTRUCTION FIRMS</u> <i>Haebeom Yang, Woosik Jang, Kangwook Lee, Heedae Park, Seung Heon Han and Hyun-Woo You</i></p> <p><u>A COMPARATIVE ANALYSIS ON EFFICIENCY AND TOTAL FACTOR PRODUCTIVITY IN CONSTRUCTION FIRMS BETWEEN KOREA AND JAPAN</u> <i>Jung Lo Park, Sung Sik Kim, Dong Jin Kwark, Jung Gyu Park, Ju Hyung Kim and Jae Jun Kim</i></p> <p><u>FORMAL GOVERNANCE MECHANISM AND ITS APPLICATION IN CONSTRUCTION PROJECTS</u> <i>S. Yaser Banihashemi and Li Liu</i></p> <p><u>INCENTIVE/DISINCENTIVE PROJECT SUCCESS ACTORS DURING MACARTHUR MAZE I-580 BRIDGE SPAN REPLACEMENT</u> <i>Jae-Ho Pyeon and Marc Zomoradi</i></p>

<p>S13 13:15-14:45</p>	<p>Project Management /Delivery GARDEN ROOM 1 Moderator: Dr. Jin-Lee Kim</p>
	<p><u>QUANTITATIVE ANALYSIS ON PROJECT PERFORMANCE ANALYSIS AND DELIVERY METHODS</u> <i>Seta Ohanesian, Jin-Lee Kim, Tang-Hung Nguyen and Ok-Kyue Kim</i></p> <p><u>COMPENSATION STRUCTURE AND CONTINGENCY ALLOCATION IN INTEGRATED PROJECT DELIVERY</u> <i>Mei Liu, Fletcher Griffis and Andrew Bates</i></p> <p><u>A MODEL FOR SELECTION, AWARDED AND MONITORING OF PPP PROJECTS IN DEVELOPING COUNTRIES; HEALTH CARE FACILITIES IN COLOMBIA</u> <i>Henry Arboleda-Mantilla and Carlos A. Arboleda</i></p> <p><u>ROBUST APPLICATION OF EARNED VALUE MANAGEMENT SYSTEM FOR THE INDUSTRIAL CONSTRUCTION PROJECTS</u> <i>Kyusung Lee, Hojeong Song and Jaehyun Choi</i></p> <p><u>ACTIVITY-BASED STRATEGIC WORK PLANNING AND CREW MANAGEMENT IN CONSTRUCTION: UTILIZATION OF CREWS WITH MULTIPLE SKILL LEVELS</u> <i>Sungjoo Hwang, Moonseo Park, Hyun-Soo Lee, Sanghyun Lee and Hyunsoo Kim</i></p>
<p>S14 13:15-14:45</p>	<p>Sustainability-Technologies GARDEN ROOM 2 Moderator: Dr. SangHyun Lee</p>
	<p><u>SUSTAINABILITY SOLUTIONS USING TRENCHLESS TECHNOLOGIES IN URBAN UNDERGROUND INFRASTRUCTURE DEVELOPMENT</u> <i>Dae-Hyun Koo and Samuel Ariaratnam</i></p> <p><u>ESTIMATING THE LOSS RATIO OF SOLAR PHOTOVOLTAIC ELECTRICITY GENERATION THROUGH STOCHASTIC ANALYSIS</u> <i>Tae-hoon Hong, Choongwan Koo and Minhyun Lee</i></p> <p><u>VALUATION OF A MULTI-STAGE RAINWATER HARVESTING TANK CONSTRUCTION USING A REAL OPTION APPROACH</u> <i>Byungil Kim, Hyoungkwan Kim and Sanghyun Lee</i></p> <p><u>USE OF RECYCLED BRICK MASONRY AGGREGATE (RBMA) AND RECYCLED BRICK MASONRY AGGREGATE CONCRETE (RBMAC) IN SUSTAINABLE CONSTRUCTION</u> <i>Dallas Schwerin, Tara Cavalline and David Weggel</i></p>
<p>S15 13:15-14:45</p>	<p>Project Management-Scheduling GARDEN ROOM 4 Moderator: Dr. Hyung Seok Jeong</p>
	<p><u>AN INTRODUCTION OF NEW SCHEDULING SOFTWARE “BEELINER” BASED ON THE BEELINE DIAGRAMMING METHOD (BDM)</u> <i>Seon-Gyoo Kim</i></p> <p><u>A STOCHASTIC SIMULATION MODEL FOR ESTIMATING ACTIVITY DURATION OF SUPER-TALL BUILDING PROJECT</u> <i>Minhyuk Jung, Hyun-Soo Lee, Moonseo Park, and Bogyeong Lee</i></p> <p><u>ADVANCED ALIGNMENT-BASED SCHEDULING WITH VARYING PRODUCTION RATES FOR HORIZONTAL CONSTRUCTION PROJECTS</u> <i>Greg Duffy, Asregedew Woldesenbet, Hyung Seok Jeong and Garold D. Oberlender</i></p> <p><u>AN ANALYSIS ON FACTORS AFFECTING SCHEDULE PERFORMANCE OF PUBLIC HOUSING PROJECTS: CASE OF SINGAPORE</u> <i>Bon-Gang Hwang, Xianbo Zhao and Si Yi Ng</i></p>

<p>S16 15:15-16:45</p>	<p>BIM- Design Planning GARDEN ROOM 1 Moderator: Dr. Inhan Kim</p>
	<p><u>A METHODOLOGY OF OPEN BIM-BASED QUANTITY TAKE-OFF FOR SCHEMATIC ESTIMATION OF THE FRAME WORK IN EARLY DESIGN STAGE</u> <i>Hansaem Kim, Jungsik Choi and Inhan Kim</i></p> <p><u>DEVELOPMENT OF ARCHITECTURAL DESIGN QUALITY CONTROL REQUIREMENTS BASED ON OPEN BIM</u> <i>Inhan Kim, Jungsik Choi and Junho Choi</i></p> <p><u>USER-DEFINED PROPERTY SETS-BASED IFC EXTENSION FOR BRIDGE APPLICATION INFORMATION MODEL</u> <i>Sang-Ho Lee, Sang Il Park and Munsu Yang</i></p> <p><u>A FRAMEWORK OF BUILDING KNOWLEDGE REPRESENTATION FOR SUSTAINABILITY RATING IN BIM</u> <i>Shahaboddin H. Toroghi, Tang-Hung Nguyen and Jin-Lee Kim</i></p>
<p>S17 15:15-16:45</p>	<p>Risk Analysis GARDEN ROOM 2 Moderator: Dr. Gunnar Lucko</p>
	<p><u>IDENTIFYING CRITICAL RISKS IN PUBLIC PRIVATE PARTNERSHIP PROJECTS IN SINGAPORE</u> <i>Xianbo Zhao, Bon-Gang Hwang and Mindy Jiang Shu Gay</i></p> <p><u>RISK FRAMEWORK FOR NEXT GENERATION NUCLEAR POWER PLANT CONSTRUCTION</u> <i>John Walewski, Stuart Anderson, Jaeheum Yeon and Amy Kim</i></p> <p><u>MODELING MEASURES OF RISK CORRELATION FOR QUANTITATIVE FLOAT MANAGEMENT OF CONSTRUCTION PROJECTS</u> <i>Richard C. Thompson and Gunnar Lucko</i></p> <p><u>MODELING ACCURATE INTEREST IN CASH FLOWS OF CONSTRUCTION PROJECTS TOWARD IMPROVED FORECASTING OF COST OF CAPITAL</u> <i>Gunnar Lucko and Richard C. Thompson Jr.</i></p> <p><u>Parameter Impact Applied Case-based Reasoning Cost Estimation</u> <i>Joseph Ahn, Hyun-Soo Lee, Moonseo Park, Sae-Hyun Ji and Sooyoung Kim</i></p>
<p>S18 15:15-16:45</p>	<p>Cost Estimating/ Analysis GARDEN ROOM 4 Moderator: Dr. Seokyon Hwang</p>
	<p><u>EVALUATION OF COST-TIME RELATIONSHIPS FOR CONTRACTORS PARTICIPATING IN COST-PLUS-TIME BIDDING</u> <i>Saeed Abdollahi Pour and David Jeong</i></p> <p><u>MEASURING PROBABILISTIC RISK ASSOCIATED WITH INITIAL COST ESTIMATES</u> <i>Seokyon Hwang</i></p> <p><u>COST BENEFIT ANALYSIS OF HIGHWAY SYSTEMS</u> <i>Thompson Darren, Don Chen, Walker Nick and Mastin Neil</i></p> <p><u>A PROFITABILITY MODEL BASED ON PRIMARY FACTOR ANALYSIS IN THE EARLY PHASE OF HOUSING REDEVELOPMENT PROJECTS</u> <i>Kyeong-Hwan Ahn, U-Yeong Gim, Jong-Sik Lee, Won Kwon and Jae-Youl Chun</i></p> <p><u>CASH FLOW FORECASTING IN CONSTRUCTION INDUSTRY USING SOFT COMPUTING APPROACH</u> <i>Kumar Vellanki, Venugopal Mi, and Vikram Bodu</i></p>

<p>S19 10:30-12:00</p>	<p>Infrastructure Management GARDEN ROOM 1 Moderator: Dr. Don Chen</p>
	<p><u>ASSESSMENT OF PUBLIC PERCEIVED ROADWAY SMOOTHNESS</u> <i>Aaron Williamson, Don Chen, Jamie Miller and Neil Mastin</i></p> <p><u>A STUDY ON SPACE ZONING BY COMPUTING IDLE-TIME IN CONSTRUCTION PROCESSES</u> <i>Sang-Min Park, Won-Suk Jang and Dong-Eun Lee</i></p> <p><u>A STUDY ON SELECTING OPTIMAL HAUL ROUTES OF EARTHMOVING MACHINE</u> <i>Han-Seong Gwak, Chang-Baek Son, Dong-Eun Lee and Chang-Yong Yi</i></p> <p><u>Application of USN Technology for Monitoring Earth Retaining Wall</u> <i>Sungwoo Moon, Eungi Choi and Injoon Kang</i></p>
<p>S20 10:30-12:00</p>	<p>Smart Devices GARDEN ROOM 2 Moderator: Dr. SangHyun Lee</p>
	<p><u>BASIC DESIGN OF A SCHEDULING TOOL FOR SMART DEVICES</u> <i>Myunghoun Jang</i></p> <p><u>ACTION LEARNING TEACHING-LEARNING STRATEGY IN ARCHITECTURAL ENGINEERING DESIGN CLASSES</u> <i>Myunghoun Jang and Hee-Bok Choi</i></p> <p><u>THE ROLE OF USING A TABLET COMPUTER FOR MOBILE COMMUNICATION ON CONSTRUCTION SITES</u> <i>Ruvinde Kooragamage, John Kelsey and Simon Julier</i></p> <p><u>DYNAMIC ANALYSIS OF ATTENDANCE BEHAVIOR WITHIN CONSTRUCTION CREWS</u> <i>Seungjun Ahn, Sungjoo Hwang, SangHyun Lee, Ian R. Gellatly and Moonseo Park</i></p> <p><u>Construction educational game for K-12</u> <i>Youjin Jang, Moonseo Park, Hyun-Soo Lee and Chanhyuk Park</i></p>
<p>S21 10:30-12:00</p>	<p>Space Planning GARDEN ROOM 4 Moderator: Dr. Chung-Suk Cho</p>
	<p><u>ANALYSIS OF SURFACE DESIGN AND PANEL OPTIONS FOR FREEFORM BUILDING</u> <i>Han-Guk Ryu and Min-Kyu Park</i></p> <p><u>TOWARDS A SPATIAL FRAMEWORK FOR SUPPORTING BUILDING CONSTRUCTION INSPECTION</u> <i>Saud Aboshiqah, Bert Veenendaal and Robert Corner</i></p> <p><u>A STUDY ON THE REQUIREMENTS INFORMATION MANAGEMENT MODEL AND PROCESS LINKED TO SPACE PLANNING IN EARLY DESIGN STAGE</u> <i>Jaeho Cho, Sangwoo Kim, Bosik Son and Jaeyoul Chun</i></p> <p><u>ENHANCING UTILIZATION OF BUILDINGS THROUGH INTEGRATED ANALYSIS OF SPACE, USER, AND USER ACTIVITY</u> <i>Tae Wan Kim and Martin Fischer</i></p>

<p>S22 13:15-14:45</p>	<p>Technology Support GARDEN ROOM 1 Moderator: Dr. Dae-Hyun Koo</p>
	<p><u>DEVELOPMENT OF TUNNEL ASSET MANAGEMENT (TAM) PROGRAM</u> <i>Hamed Zamenian and Dae-Hyun Koo</i></p> <p><u>A STUDY ON CYCLONE SYSTEM ASSISTING FOR THE REVISION OF CONSTRUCTION STANDARD PRODUCTION UNIT SYSTEM</u> <i>Tae Kyung Lim, Hanseong Gwak, Won Sang Shin, Chang Baek Son and Dong Eun Lee</i></p> <p><u>A STUDY OF OBJECT RECOGNITION FOR THE EFFICIENT MANAGEMENT OF CONSTRUCTION EQUIPMENT</u> <i>Hyeok Jun Ryu, Suk Won Lee, Ju Hyung Kim and Jae Jun Kim</i></p> <p><u>INTERFERENCE CHARACTERISTICS OF CONSTRUCTION ENVIRONMENT FOR THE WSN APPLICATIONS</u> <i>Sun-Chan Bae, Won-Sik Jang, Sang-Dae Park and Won-Suk Jang</i></p>
<p>S23 13:15-14:45</p>	<p>Construction Technology/Management GARDEN ROOM 2 Moderator: Dr. Younghan Jung</p>
	<p><u>QUALITY ASSURANCE IN ROADWAY PAVEMENT CONSTRUCTION</u> <i>Myung Goo Jeong and Younghan Jung</i></p> <p><u>RECLAIMING MULTIFACETED FINANCIAL RISK INFORMATION FROM CORRELATED CASH FLOWS UNDER UNCERTAINTY</u> <i>Byung-Cheol Kim, Euysup Shim and Seong Jin Kim</i></p> <p><u>IMPLEMENTATION OF TRL TOOLS TO KOREAN NATIONAL CONSTRUCTION AND TRANSPORTATION R&D PROJECTS FOR IMPROVING PRACTICAL USE</u> <i>Nam Gyun Kim, Byung Ho An, Jae Hong Choi, Hyun Seok Lee, Sang Hyuk Park and Yea Sang Kim</i></p> <p><u>DISTANCE MEASUREMENT IN THE AEC/FM INDUSTRY: AN OVERVIEW OF TECHNOLOGIES</u> <i>Jasmine Hines, Abbas Rashidi and Ioannis Brilakis</i></p>
<p>S24 13:15-14:10</p>	<p>Project Management/Analysis GARDEN ROOM 4 Moderator: Dr. Boong Yeol Ryoo</p>
	<p><u>DEVELOPING PROJECT PERFORMANCE MANAGEMENT SYSTEM IN CONSIDERATION OF PROJECT CHARACTERISTICS</u> <i>Hee Sung Cha and Jin Lee Kim</i></p> <p><u>MEASURING THE PERFORMANCE OF INNOVATION IN A KNOWLEDGE-BASED ARCHITECTURAL DESIGN SERVICE INDUSTRY</u> <i>Ji-Sun Kim, Jung-Lo Park, Yoon-Sun Lee and Jae-Jun Kim</i></p> <p><u>USE OF PROJECT MANAGEMENT PROCEDURES IN BUILDING CONSTRUCTION</u> <i>Boong Yeol Ryoo and Mike Duff</i></p> <p><u>READINESS OF NIGERIAN BUILDING DESIGN FIRMS TO ADOPT BUILDING INFORMATION MODELLING (BIM) TECHNOLOGIES</u> <i>Mu'awiya Abubakar, Yahaya Makarfi Ibrahim and Kabir Bala</i></p> <p><u>Development of a Relation-Based Information Retrieval Application for an Information Flow Analysis in Large-Scale and Complex Construction Projects</u> <i>Jinho Shin, Hyun-Soo Lee, Moonseo Park and Kwonsik Song</i></p>

THANK YOU