

Welcome Address

On behalf of the Organizing Committee and all our members of the Korean Institute for Construction Engineering Management (KICEM), we wish to extend a warm-hearted welcome to the participants of the 2009 ICCEM•ICCPM conference. It is with great privilege and honor to host the conference in Korea, and we are even more delighted to greet our guests at Korea's most prestigious and favorite resort of Jeju Island.

We have made preparations to ensure that the conference will be a smashing success. In particular, we hope that the conference provides a platform where academics, industry leaders, and all those affiliated with the field of construction engineering and management can get together to share new ideas, extend current boundaries, and perhaps most importantly, broaden mutual relationships- both professional and personal- in this global new world.

We have organized an intellectually stimulating and exciting program to reflect the main theme of our conference, "Global Convergence in Construction." We have invited nine internationally renowned keynote speakers and seventeen industrial case lectures from representative projects all over the world. More than two hundred papers from nineteen countries will be presented during the conference. The program has been prepared so that everyone has a chance to share their latest work and projects with the utmost efficiency and the highest quality.

We wish to take this opportunity to thank the sponsors for their generous support, and would also like to convey our sincere gratitude to the international program committee members for their cooperation.

Jeju Island is beautiful all year round, but May is truly the best time to appreciate its splendor. Under the soft, warm sunshine, surrounded by emerald surfs lapping at pristine white beaches, we hope you have a great time in the company and friendship of all our participants.

Last but not least, we wish you have a productive and fruitful stay and hope that you will benefit from the conference, and that the memory of your visit to the Jeju Island be a lasting and pleasant one.

Sincerely,



Sun Kuk Kim

Chairman
Organizing Committee ICCEM-ICCPM 2009



Hyun Soo Lee

President
Korea Institute of Construction Engineering and Management

Organizing Committee

ICCEM 2009

President	Hyun Soo Lee	<i>Seoul National University</i>		
Chairman	Sun Kuk Kim	<i>KyungHee University</i>		
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ICCPM 2009

Members

Seng Kiong Ting, Robert Tiong, David Chew, Po-Han Chen, Hsio Wei New
School of Civil and Environmental Engineering, Nanyang Technological University, Singapore

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Dongping Fang	<i>Tsinghua University, Beijing</i>	<i>China</i>
Shou Qing Wang	<i>Tsinghua University, Beijing</i>	<i>China</i>
Beom-Yong Sung	<i>Takenaka Europe</i>	<i>Germany</i>
Koshy Varghese	<i>Indian Institute of Technology, Madras</i>	<i>India</i>
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Shuzo Furusaka	<i>Kyoto University</i>	<i>Japan</i>
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Moon Young Cho	<i>Korea Institute of Construction Technology</i>	<i>Korea</i>
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Sang Bum Kim	<i>Dongguk University</i>	<i>Korea</i>
Sun-Kuk Kim	<i>KyungHee University</i>	<i>Korea</i>
Kyo Jin Koo	<i>University of Seoul</i>	<i>Korea</i>
Yea-Sang Kim	<i>Sungkyunkwan University</i>	<i>Korea</i>
Chan sik Park	<i>Chung-Ang University</i>	<i>Korea</i>
Moon Seo Park	<i>Seoul National University</i>	<i>Korea</i>
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George Ofori	<i>National University of Singapore</i>	<i>Singapore</i>
Lee Kong Tiong, Robert	<i>Nanyang Technological University</i>	<i>Singapore</i>
David Chew Ah Seng	<i>Nanyang Technological University</i>	<i>Singapore</i>
Seng Kiong Ting	<i>Nanyang Technological University</i>	<i>Singapore</i>
Min-Yuan Cheng	<i>National Taiwan University of Science and Technology</i>	<i>Taiwan</i>
Ting-ya Hsieh	<i>National Central University</i>	<i>Taiwan</i>
Hank Adams	<i>Kiewit Construction Company</i>	<i>U.S.A</i>
Chung-Suk Cho	<i>University of North Carolina, Charlotte</i>	<i>U.S.A</i>
Yong Kwon Cho	<i>University of Nebraska- Lincoln</i>	<i>U.S.A</i>
G. Edward Gibson	<i>University of Alabama</i>	<i>U.S.A</i>
Hyungseok Jeong	<i>Oklahoma State University</i>	<i>U.S.A</i>
Julian H. Kang	<i>Texas A&M University</i>	<i>U.S.A</i>
Yong Woo Kim	<i>University of Washington</i>	<i>U.S.A</i>
Joo Hyoung Lee	<i>Purdue University, Calumet</i>	<i>U.S.A</i>
Sang Hoon Lee	<i>Huston University</i>	<i>U.S.A</i>
Marvin Oey	<i>The Construction Institute of the American Society of Civil Engineers</i>	<i>U.S.A</i>
Boong-yeol Ryoo	<i>Florida International University</i>	<i>U.S.A</i>
Mirosław J. Skibniewski	<i>University of Maryland</i>	<i>U.S.A</i>

Conference Information

Registration

Registration Desk

Date	Place	Operation Hour
May 27	Grand Ballroom Lobby 1F	15:00~ 19:00
May 28~29		08:00~ 19:00

Registration Fee

Category	On-site Registration	
	Domestic	Foreign
Participants	KRW 650,000	\$US 650
Students	KRW 350,000	\$US 350
Accompanying Persons	KRW 150,000	\$US 150

Registration Fee includes

- **Participant includes:** Scientific program admission, opening / closing ceremony, welcome reception, banquet, Lunches, coffee breaks, and conference kit.
- **Student (Undergraduate and fulltime postgraduates - Master and Ph.D. courses) includes:** Scientific program admission, opening / closing ceremony, welcome reception, banquet, Lunches, coffee breaks, and conference kit.
- **Accompanying Person includes:** Opening / closing ceremony, welcome reception, banquet, coffee breaks, and name badge.

Name Badges

You are kindly requested to wear your name badge during all scientific sessions and social programs.

Presentation Guideline

Pre-view

Please visit the pre-view room at the hotel lobby(B1) at least 4 hours prior to the start of your session. You should check your presentation file whether it does work correctly in our system. If it does not work or if you have any other requests, please let our staff know in the pre-view room.

- Place: the function room opposite of the crystal hall (B1)
- Operation Hours: May 27 (15:00 ~ 18:00), May 28-29 (08:00 ~ 18:00)

Presentation file submission / Technical Equipment

- After checking your file, please submit the file to the staff in the preview room.
- The IBM-compatible laptops will run on the Windows XP Operating System and will have Microsoft Office 2003 Power-point.
- It will be possible to bring your own computer. In this case, we ask that you test your computer with the projector located in the lecture room where you will hold your presentation during the previous break in order to avoid delays
- In particular, if you bring your Mackintosh computer for the presentation, please test it in the lecture room 2 hours before the session.

Presentations Time

- Keynote Lectures 40mins including Q&A
- Industrial Case Lectures 20mins including Q&A
- Oral Presentation 15mins including Q&A
- P oster Presentation: All presenters are requested to affix their posters, and remove them on the dates and times shown below.

Place	Date & Time (Affix)	Date & Time (Removal)
Diamond Hall Lobby (B1)	May 28, by 09:00	May 29, by 17:30

Meals

Breakfast

Breakfast will not be provided you in ICCEM-ICCPM 2009. However, we will serve the meals with conference rate in the hotel & resort restaurants, and you can have meals in the restaurants outside hotel & resort with more cheap price.

Lunch Sponsored by Heerim Architects & Planners

ICCEM-ICCPM 2009 will provide registrants with free lunch in the restaurants(Hanoru, Idy, Sum Mora). The lunch coupon will be given with your name bage.

Transportation

Shuttle Schedule between Haevichi Hotel & Resort and Jeju Airport.

- Departure from Juju Airport to Haevichi Hotel

Airport	Hotel	Opertation Day
09:00	10:30	During the conference
10:00	11:30	
11:00	12:30	
12:30	13:30	
13:30	14:30	
14:30	15:30	
16:00	17:00	Two buses will be operated.
17:00	18:00	During the conference
18:00	19:00	Only May 27-28
19:00	20:00	
20:00	21:00	
21:00	22:00	During the conference

- Departure form Haevichi Hotel to Juju Airport

Hotel	Airport	Opertation Day
		During the conference
09:00	10:00	
10:00	11:00	
10:30	12:00	Only May 29-30
11:00	12:00	During the conference
12:00	13:00	Only May 29-30
13:00	14:00	During the conference
14:00	15:30	
15:10	16:40	
17:00	18:00	Only May 29-30
18:10	19:40	During the conference
19:10	20:10	Only May 29-30

Useful Information

Internet Lounge

Place: Hotel Lobby (B1)

Operation hours: 08:00~18:00

Information & Message Board

ICCEM-ICCPM 2009 secretariat will announce some "Notice" to the participants using the message board.

Participants are able to exchange the message between other participants at the conference using it.

Free Meeting Room

Two small sized meeting rooms A and B (10 person) will be available for use on a first come first served basis.

Participants who wish to use these rooms should fill out the time sheet which will be on the door of the meeting room.

Information/Tour Desk

Place: Hotel Lobby 1F, a hallway between the Grand Ballroom and the hotel side

Operation Hours: 09:00 ~ 18:00

If you have any inquiries about the conference, please ask information desk.

Anyone who wants to join the tour program of ICCEM-ICCPM 2009 is required to visit the tour desk. Every tour will be arranged only if minimum number of participants join.

Medical Office

Place: Hotel 1F, between the Grand Ballroom and the hotel side

Operation Hours: 08:30~18:00

ICCEM-ICCPM 2009 secretariat

During the conference: Hotel Lobby (B1) / May 27 ~ May 29, 08:00 ~ 18:00 / Tel: 064-780-8561

Program at-a-Glance

Time	May 27 (Wed)	May 28 (Thur)					May 29 (Fri)					May 30 (Sat)			
09:00		Opening					Poster Presentation	Keynote 5					Conference Tour		
		Keynote 1						Keynote 6							
10:00		Keynote 2						Keynote 7							
		Coffee Break						Coffee Break							
11:00		IC 1	S1	S2	S3	S4		S5	IC 3	S11	S12	S13		S14	S15
12:00		Lunch						Lunch							
13:00		Keynote 3						Keynote 8							
		Keynote 4						Keynote 9							
15:00		Coffee Break						Coffee Break							
16:00		Registration	IC 3 By ASCE id	S6	S7	S8		S9	S10	IC 4	S16	S17		S18	S19
17:00															
18:00	Welcome Reception						Banquet								

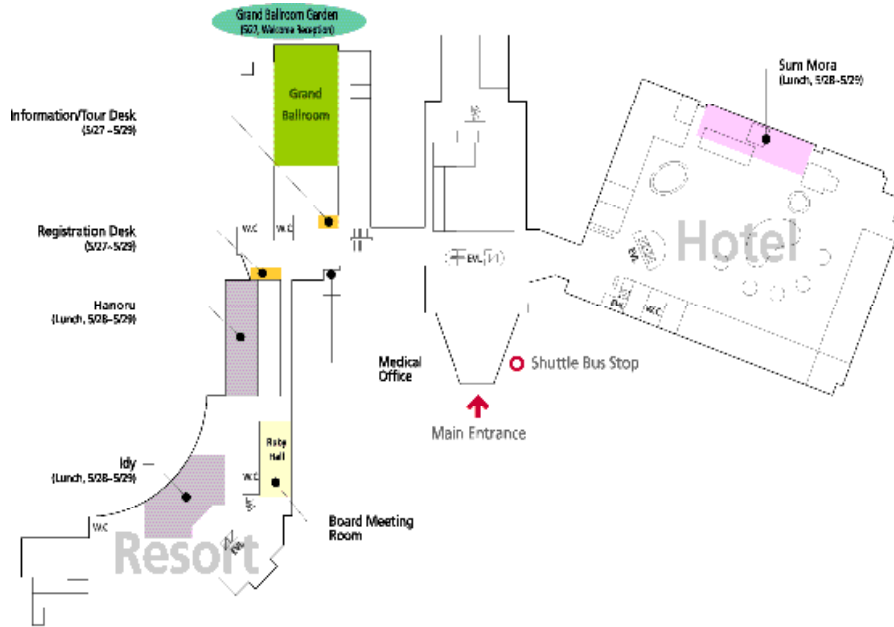
Session Topics

- Automation and Robotics in Construction
- Building Information Model
- Construction Productivity Improvement
- Cost, Time, Quality, and Safety Management
- Design and Engineering Management
- Information Technology in Construction
- International and Global Issues in Construction Project Management
- Project Management
- State-of-the-Art in Construction Engineering and Management
- Sustainability and the Environment

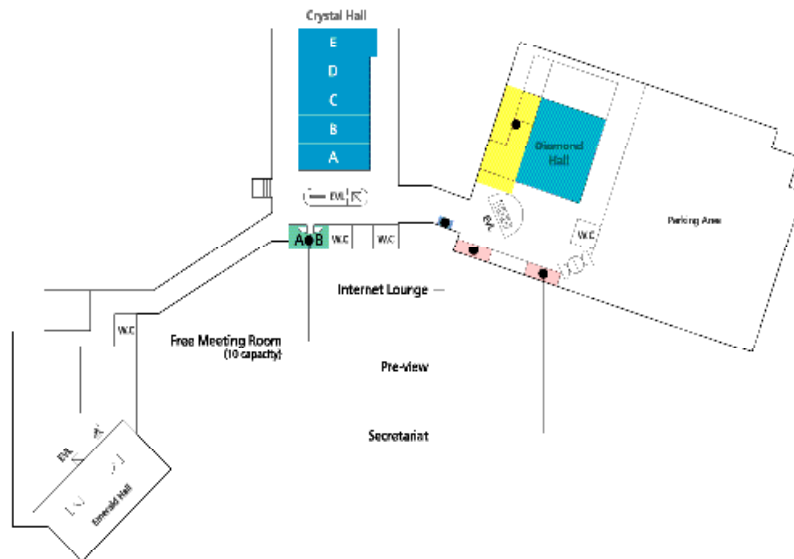
- S3, S8
- S5, S10
- S14, S19
- S2, S7, S12, S17
- S20
- S13, S18
- S19
- S1, S6, S11, S16
- S15
- S4, S9

Floor Plan

1F



B1



Session Rooms & Hospitalitys

Keynote, Opening Ceremony, Banquet & Closing Ceremony	Grand Ballroom-	1F
Industrial Cases	Diamond Hall	B1
Oral Presentations	Crystal Hall	
Posters	Diamond Hall Lobby	B1

Function Room

Registration Desk, Medical Office, Information/Tour Desk	1F
Pre-view, Secretariat, Internet Lounge, VIP Room, Free Meeting Room	B1

Social Program and Refreshment

The social programs will provide a chance for the participants to mingle and enjoy a leisurely time with your colleagues.

Welcome Reception - May 27 (Wednesday), 18:00~20:00, Grand Ballroom Garden(1F).

**In case of raining, in the Grand Ballroom Lobby*

Free of Charge

All registered participants are invited to the welcome reception. You can enjoy an standing buffet dinner.

A chance for all the participants and their companions to relax from their long trips while also enjoying conversations with other colleagues in the warm atmosphere and welcome.

Banquet - May 29 (Friday), 18:00~20:00, Grand Ballroom (1F)

Free of Charge, Sponsored by Kun Won Engineering

A banquet dinner will be held for pre-registered guests. All participants will enjoy western-style dinner. The dinner will be followed by "Korean Traditional Performance." We are sure that the Banquet will be a memorable event for all participants. You will be greatly impressed by the beautiful and unique cultural performance of Korea.

**Those who would like to join the banquet and have not yet registered may make a reservation at the registration desk by 16:00, May 28.*

Conference Tour - May 30 (Saturday), 09:00~17:30, beautiful Jeju island

Admission with coupon (\$US70)

The excursion bus will depart from the venue at 09:00, and you will served lunch. (a Korean traditional dish)

Experience World Heritage sites Sungsan sunrise peak and Jeongbang Waterfall and Black hexagonal stone pillars at the edge of the ocean, and visit the world biggest bonsai theme park, and tracking the "Olle" which is a path that comes out from a secret room to an open space and a gateway to the world.

**Those who would like to join the conference tour and have not yet registered are requested to make a reservation at the registration desk by 14:00, May 29.*

Sponsors

The Organizing Committee of ICCEM-ICCPM 2009 gratefully acknowledge the following sponsors.

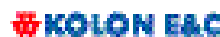
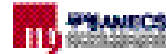
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Keynotes

May 28th

(Grand Ballroom, 1F)

Chairperson: **Young Soo Jung** (Myongji University)



K1 (09:20-10:00)

Automated Data Collection Technology Applications in Construction

Ronie Navon

Israel Institute of Technology, Israel



K2 (10:00-10:40)

Construction IT, Collaboration

Feniosky A. Pena-Mora

University of Illinois at Urbana-Champaign, USA

Chairperson: **Yea-Sang Kim** (Sungkyunkwan University)



K3 (14:00-14:40)

The Way How To Combine Creativity on Use with the Improvement of Built Environment

Matsumura Shuichi

The University of Tokyo, Japan



K4 (14:40-15:20)

Expanding the Global Construction opportunities through business convergence

Soo Sam Kim

Hanyang University, Korea

May 29th

(Grand Ballroom, 1F)

Chairperson: **Chan sik Park** (Chung-Ang University)



K5 (09:00-09:40)

Project Leadership: A Global Study of New Trends

George Ofori

National University of Singapore, Singapore



K6 (09:40-10:20)

Lean Construction

Iris Tommelein

University of California, Berkeley, USA



K7 (10:20-11:00)

ICT-supported collaborative working in construction

Geoffrey Qiping SHEN

The Hong Kong Polytechnic University, Hong Kong

Chairperson: **Soon Wook Kwon** (Sungkyunkwan University)



K8 (14:00-14:40)

Construction Simulation

Simaan M. AbouRizk

University of Alberta, Canada



K9 (14:40-15:20)

Infrastructure Risk Management in Preparation of Extreme Events

Makarand Hastak

Purdue University, USA

Industrial Cases

May 28th

(Diamond Hall, B1)

11:00-12:20 IC1 - Project Management

Chairperson: **Ghang Lee** (Yonsei University)

- IC1-1 Construction Management in Songdo International City
In-Seub Gin, KUNWON Engineering Co., South Korea
- IC1-2 Sustainable Development and Green Growth
Terry W. Curl, CH2MHILL, USA
- IC1-3 Understanding the U-City Project
Boo-Young Chung, SAMSUNG SDS, Korea
- IC1-4 Integrated U-City Model in New Songdo International City
Jeong-Wha Huh, Songdo U-Life., LLC, Korea

15:40-17:40 IC2 - Cost, Time, Quality, and Safety Management

Chairperson: **Marvin Oey** (ASCE)

- IC2-1 Sustainability Initiatives of the Chicago O'Hare Modernation Project
Rosemarie Andolino, O'Hare Modernization Program, USA
- IC2-2 Project Delivery Systems: A U.S. Perspective
Chris Reseigh, Parsons Brinckerhoff, USA
- IC2-3 Construction Productivity
Hank Adams, Kiewit, USA

May 29th

(Diamond Hall, B1)

11:15-12:35 IC3 - Project Management

Chairperson: **Sangyoan Chin** (Sungkyunkwan University)

- IC3-1 Saudi Tasnee Ethylene Plant - Success Story of Project Execution
Jung Koo Lee, SAMSUNG Engineering Co., Ltd, Korea
- IC3-2 Embracing the Challenge - LEED at Songdo International Business District
Suzanne Johnson, PB, Korea
- IC3-3 Burj Dubai Pinnacle Lift-Up
DAE-JOONG Kim, Samsung Corporation, Korea
- IC3-4 Great Hanoi
Eliot Sanghoon Bu, Urban Knowledge Trust, Korea

15:40-17:40 IC4 - Cost, Time, Quality, and Safety Management

Chairperson: **HyoungKwan Kim** (Yonsei University)

- IC4-1 Daelim EVMS System
Doyoung Jung, Daelim Industrial Co., Bridge Engineering Team, Korea
- IC4-2 Case Study of Multi-Prime CM Contract for Mexico S Factory
Seok Ki Min, HanmiParsons co., Ltd., Korea
- IC4-3 Immersed Tunnel (Busan-Geoje Fixed Link)
Bong-Hyun Cho, Daewoo E&C Co., Ltd, Korea
- IC4-4 Constructing a small footprint wastewater treatment plant using advanced biological process
Dooil Kim, POSCO E&C, Korea
- IC4-5 Visualization of Construction Schedule Considering the Geological Conditions and the Method Statement in the Complicated Underground Space
Ho Yeong Kim, SK Engineering & Construction, Korea
- IC4-6 Tae'an Tourism and Lesuire city
Jung Chul Kim, HYUNDAI Engineering & Construction Co., LTD., Korea

Oral Presentations

S1 Project Management

11:00-12:30**Crystal Hall A**

Chairperson: G. Edward Gibson (University of Alabama)

- S1-1** APPLICATION OF CONTRACTORS' RISK PREFERENCE ON THE EVALUATION OF THE PHILIPPINE GOVERNMENT STANDARD CONTRACT
11:00 Joel Cesarius V. Reyes, Chulalongkorn University, Thailand
- S1-2** LIFT CYCLE PREDICTION METHOD FOR THE SELECTION OF LIFT EQUIPMENT IN SUPER TALL BUILDING CONSTRUCTION
11:15 Seo-kyung Won, Kyung Hee University, Korea
- S1-3** COMPETITOR ANALYSIS IN CONSTRUCTION BIDDING
11:30 Bee Lan Oo, University of Sydney, Australia
- S1-4** SHIHMEN SEDIMENT PREVENTION DIVERSION TUNNEL PLANNING AND DESIGN
11:45 Ho-Shong Hou, University Kaohsiung, Taiwan
- S1-5** CULTURAL IMPACT ON KNOWLEDGE MANAGEMENT PROCESS AFFECTING PROJECT MANAGEMENT PRACTICE
12:00 Eric Wai-Leung Chan, RMIT University, Australia
- S1-6** IDENTIFICATION OF SOME FAILURE COSTS AND THEIR PERCEIVED ROOT CAUSES IN CONSTRUCTION
12:15 Saad Al-Jibouri, University of Twente, Netherlands

S2 Cost, Time, Quality, and Safety Management

11:00-12:30**Crystal Hall B**

Chairperson: Shuzo Furusaka (Kyoto University)

- S2-1** A MODEL OF CONSTRUCTION WORKER'S PERCEPTIONS ON ELECTRONIC MONITORING
11:00 Bill L.P. Lee, The Hong Kong Polytechnic University, Hong Kong
- S2-2** Study of New Cast-in-Place Mortar Wall for House Construction Compared to Brick and Mortar-Block System (A Simulation in Different Areas)
11:15 Arief Setiawan Budi Nugroho, Hokkaido University, Japan
- S2-3** A CBR-BASED COST PREDICTION MODEL FOR THE DESIGN PHASE OF PUBLIC MULTI-FAMILY HOUSING CONSTRUCTION PROJECTS
11:30 HyunSeok Moon, University of Seoul, Korea
- S2-4** STRATEGIC ALLIANCE IMPLEMENTATION STATUS AND IMPACT ON PROJECT PERFORMANCE
11:45 Bon-Gang Hwang, National University of Singapore, Singapore
- S2-5** APPLICATION OF WIRELESS INCLINOMETER TEMPORARY EARTH RETAINING PILE
12:00 Chi Hun In, Yonsei University, Korea

S3 Automation and Robotics in Construction

11:00-12:30**Crystal Hall C**

Chairperson: Po-Han Chen (Nanyang Technological University)

- S3-1** ILLUMINATION ADJUSTMENT FOR BRIDGE COATING IMAGES USING BEMD-MORPHOLOGY APPROACH
11:00 Po-Han Chen, Nanyang Technological University, Singapore
- S3-2** OPERATION SKILL ANALYSIS USING PRIMITIVE STATIC STATES IN HUMAN-OPEATED WORK MACHINE
11:15 Mitsuhiro Kamezaki, Waseda University, Japan
- S3-3** IMPROVING CONSTRUCTION PROJECT DELIVERY THROUGH AUTOMATION AND ROBOTICS
11:30 Jasper Mbachu, Massey University, New Zealand
- S3-4** A DEVELOPMENT OF INTELLIGENT CONSTRUCTION LIFT-CAR TOOLKIT DEVICE FOR CONSTRUCTION VERTICAL LOGISTICS MANAGEMENT
11:45 Chang-Yeon Cho, Sungkyunkwan University, Korea
- S3-5** TRACKING LIFT-PATHS OF A ROBOTIC TOWERCRANE WITH ENCODER SENSORS
12:00 Suyeul Park, Yonsei University, Korea
- S3-6** BOX-AND-ELLIPSE-BASED NEURO-FUZZY APPROACH FOR BRIDGE COATING ASSESSMENT
12:15 Po-Han Chen, Nanyang Technological University, Singapore

S4 Sustainability and the Environment**11:00-12:30****Crystal Hall D**

Chairperson: Yong Kwon Cho (University of Nebraska- Lincoln)

- S4-1 GREEN CONSTRUCTION: U.S. CONSTRUCTION RELATED COMPANIES' STATUS AND PERCEPTION**
11:00 Yong Han Ahn, Virginia Tech, United States
- S4-2 ESTABLISHMENT OF CDM PROJECT ADDITIONALITY THROUGH ECONOMIC INDICATORS**
11:15 Kai. Li., Nanyang Technological University, Singapore
- S4-3 BIM-DRIVEN ENERGY ANALYSIS FOR ZERO NET ENERGY TEST HOME (ZNETH)**
11:30 Yong K. Cho, University of Nebraska-Lincoln, United States
- S4-4 REDUCTION OF SEDIMENT-LADEN WATER FROM CONSTRUCTION SITES INTO WATERWAYS:- A GOVERNMENT AND INDUSTRY APPROACH**
11:45 Teo Ee Huat, Ngee Ann Polytechnic, Singapore
- S4-5 VULNERABILITY ASSESSMENTS AND RISK MANAGEMENT FOR CRITICAL INFRASTRUCTURES FROM HOMELAND SECURITY VIEWPOINTS**
12:00 Chun Nen Huang, Central Police University, Taiwan

S5 Building Information Model**11:00-12:30****Crystal Hall E**

Chairperson: Matsumura Shuichi (The University of Tokyo)

- S5-1 GREEN BIM APPROACHES TO ARCHITECTURAL DESIGN FOR INCREASED SUSTAINABILITY**
11:00 Annie Pearce, Virginia Tech, United States
- S5-2 MAINTENANCE COST ANALYSIS FOR LARGE HOSPITAL BUILDINGS**
11:15 Sy-Jye Guo, National Taiwan University, Taiwan
- S5-3 REQUIREMENTS FOR AUTOMATED CODE CHECKING FOR FIRE RESISTANCE AND EGRESS RULE USING BIM**
11:30 Jiyong Jeong, Yonsei University, Korea
- S5-4 THE SELECTION OF COLOR SCHEME FOR 4D CONSTRUCTION MODEL**
11:45 Shih-Chung Kang, National Taiwan University, Taiwan
- S5-5 INTEROPERABILITY ISSUES IN CROSS-DISCIPLINARY COLLABORATIONS OF IRREGULARLY SHAPED BUILDINGS: THE CASE OF DONGDAEMUN DESIGN PLAZA AND PARK**
12:00 Ohyeon Kwon, Yonsei University, Korea

S6 Project Management**15:40-17:40****Crystal Hall A**

Chairperson: HyungSeok David Jeong (Oklahoma State University)

- S6-1** **INFLUENCE OF LEADER ON ORGANIZATIONAL LEARNING IN CONSTRUCTION TEAMS**
15:40 Chieh-Chi Cheng, National Cheng Kung University, Taiwan
- S6-2** **THE INFLUENCE OF THE PROJECT MANAGER ON THE SUCCESS OF THE CONSTRUCTION PROJECTS**
15:55 Mahdi M Abdulsamad Ali, Sheffield Hallam University, United Kingdom
- S6-3** **EVALUATING CRITICAL SUCCESS FACTORS FOR ACCURATE FIRST COST ESTIMATES OF LARGE-SCALE CONSTRUCTION PROJECTS**
16:10 Ok-Kyue Kim, Chungbuk National University, Korea, Korea
- S6-4** **DATA WAREHOUSE PROTOTYPE SYSTEM TO SUPPORT THE MASTER PLAN OF URBAN REGENERATION PROJECT**
16:25 Sang-Geum Lee, University of Seoul, Korea
- S6-5** **BEST PRACTICES FOR JOINT VENTURES: ISSUES AND CRITICAL SUCCESS FACTORS**
16:40 Rizwan U. Farooqui, Florida International University, United States
- S6-6** **Fundamental Investigation of Knowledge Management System for a Plant**
16:55 Seo-kyung Won, Kyung Hee University, Korea
- S6-7** **AN ASSET MANAGEMENT ASSESSMENT MODEL FOR STATE DOTS**
17:10 HyungSeok David Jeong, Oklahoma State University, United States
- S6-8** **PREDICTION OF FAULT TREND IN A LNG PLANT USING WAVELET TRANSFORM AND ARIMA MODEL**
17:25 Yeonjong Ju, Yonsei University, Korea

S7 Cost, Time, Quality, and Safety Management**15:40-17:40****Crystal Hall B**

Chairperson: Dongping Fang (Tsinghua University, Beijing)

- S7-1** **IMPROVING THE USABILITY OF STOCHASTIC SIMULATION BASED SCHEDULING SYSTEM**
15:40 Tae-Hyun Bae, Kyungpook National University, Korea
- S7-2** **A NESTING APPROACH IN DISCRETE EVENT SIMULATION FOR INTEGRATING CONSTRUCTION OPERATION AND SCHEDULE MODELS**
15:55 Chang-Yong Yi, Kyungpook National University, Korea
- S7-3** **OPTIMIZING QUALITY AND COST OF METAL CURTAIN WALL USING MULTI-OBJECTIVE GENETIC ALGORITHM AND QUALITY FUNCTION DEPLOYMENT**
16:10 Tae-Kyung Lim, Kyungpook National University, Korea
- S7-4** **STATISTICALLY PREPROCESSED DATA BASED PARAMETRIC COST MODEL FOR BUILDING PROJECTS**
16:25 Sae-Hyun Ji, Seoul National University, Korea
- S7-5** **MODELLING HONG KONG RESIDENTIAL CONSTRUCTION DEMAND: EXPERIENCES GAINED AND THEIR IMPLICATIONS**
16:40 S. Thomas Ng, The University of Hong Kong, Hong Kong
- S7-6** **A NEW FEEDBACK TECHNIQUE FOR TUNNEL SAFETY BY USING MEASURED DISPLACEMENTS DURING TUNNEL EXCAVATION**
16:55 Sihyun PARK, Korea Infrastructure Safety and Technology Corporation, Korea
- S7-7** **A CONCEPTUAL FRAMEWORK FOR CONCURRENT CONSTRUCTION PLANNING**
17:10 Euysup Shim, Illinois State University, United States

S8 Automation and Robotics in Construction**15:40-17:40****Crystal Hall C**

Chairperson: Masao Ando (Chiba University)

- S8-1** **ADAPTABLE ELLIPSE METHOD FOR BRIDGE COATING DEFECT RECOGNITION**
15:40 Po-Han Chen, Nanyang Technological University, Singapore
- S8-2** **TASK PLANNING AND VISUALIZATION SYSTEM FOR INTELLIGENT EXCAVATING SYSTEM**
15:55 Jeong-Hwan Kim, Hanyang University, Korea
- S8-3** **THE RESEARCH ABOUT RTPM SYSTEM CONSTRUCTION THAT APPLY USE CASE MODELING METHODOLOGY**
16:10 Eun Young-Ahn, Hanyang University, Korea

- S8-4** A DEVELOPMENT OF RFID/USN-BASED INTELLIGENT EQUIPMENT
16:25 Tae-Hong Shin, Sungkyunkwan University, Korea
- S8-5** AUTOMATED PROJECT CONTROL SYSTEM FOR STEEL PROJECTS
16:40 SangHyun Lee, University of Alberta, Canada
- S8-6** DETAILS OF PRACTICAL IMPLEMENTATION OF REAL-TIME 3D TERRAIN MODELING
16:55 Seungwoo Han, Inha University, Korea
- S8-7** COST ANALYSIS OF STRUCTURAL PLAN FOR REDUCING FRAMEWORK CONSTRUCTION DURATION OF REINFORCED CONCRETE RESIDENTIAL BUILDINGS
17:10 Seon-Woo Joo, Seoul National University, Korea
- S8-8** DEVELOPMENT OF CONSTRUCTION SITE ACCESS MANAGEMENT AUTOMATION SYSTEM BASED ON HAND VASCULAR PATTERN
17:25 Kyong Hoon Kim, Hanyang University, Korea

S9 Sustainability and the Environment

15:40-17:40

Crystal Hall D

Chairperson: Sang-Hoon Lee (Huston University)

- S9-1** DEVELOPMENT OF A FRONT END PLANNING TOOL FOR SUSTAINABILITY
15:40 Sang-Hoon Lee, The University of Houston, United States
- S9-2** DETERMINING KEY ECOLOGICAL INDICATORS FOR URBAN LAND CONSOLIDATION
15:55 Kuo-Liang Lin, I-Shou University, Taiwan
- S9-3** QUANTIFICATION OF THE CO2 FOOTPRINT IN RESIDENTIAL CONSTRUCTION
16:10 Mohamed Al-Hussein, University of Alberta, Canada
- S9-4** SINGAPORE CONTRACTORS' ATTITUDES TOWARDS ENVIRONMENTAL SUSTAINABILITY
16:25 Bee Lan Oo, University of Sydney, Australia
- S9-5** STUDY ON THE REASONS FOR OLD AGED APARTMENT REMODELING
16:40 Kyeong-Seok Chae, University of Incheon, Korea
- S9-6** EVALUATION OF SUSTAINABILITY OF CONSTRUCTION OPERATIONS: A FRAMEWORK FOR THE NEW ZEALAND CONSTRUCTION INDUSTRY
16:55 Jasper Mbachu, Massey University, New Zealand
- S9-7** REVOLUTIONS OF CONSTRUCTION ORGANIZATIONS TOWARDS GREEN BUILDING PROJECTS
17:10 Po-Han Chen, Nanyang Technological University, Singapore

S10 Building Information Model

15:40-17:40

Crystal Hall E

Chairperson: Inhan Kim (Kyung Hee University)

- S10-1** WHEN CM AT RISK MEETS VIRTUAL DESIGN AND CONSTRUCTION (VDC) : CASE STUDY OF PRACTICES IN U.S
15:40 Joo-Sung Lee, Hanyang University, Korea
- S10-2** A STUDY ON PRICING MODEL OF HIGH-RISE RESIDENTIAL BUILDINGS FROM THE VIEWPOINT OF LANDMARK FACTOR
15:55 Sung-Kon Moon, Hanyang University, Korea
- S10-3** ENHANCEMENT OF AVAILABILITY OF 4D SIMULATION BASED ON BUILDING INFORMATION MODEL TECHNOLOGY
16:10 Jong Jin Park, Hanyang University, Korea
- S10-4** COMPARATIVE ANALYSIS OF BIM ADOPTION IN KOREAN CONSTRUCTION INDUSTRY AND OTHER COUNTRIES
16:25 Jongsung Won, Yonsei University, Korea
- S10-5** DEVELOPMENT OF LEGALITY SYSTEM FOR BUILDING ADMINISTRATION PERMISSION SERVICE BASED ON BIM
16:40 Inhan Kim, Kyung Hee University, Korea
- S10-6** ENERGY EFFICIENT BUILDING DESIGN THROUGH DATA MINING APPROACH
16:55 Hyunjoon Kim, USACE, United States

S11 Project Management**11:00-12:30****Crystal Hall A**

Chairperson: Simaan M. AbouRizk (University of Alberta)

- S11-1** SUGGESTION AND VERIFICATION OF ASSESSMENT MODEL ON CONSTRUCTION-COST OF STEEL BRIDGE IN PROJECT PERFORMANCE PHASES
11:00 Eun-Kyoung Jeon, Korea Maritime University, Korea
- S11-2** USING PROCESS MAPPING IN CONSTRUCTION PROCESS TO REDUCE CHANGE ORDERS
11:15 Sang-Hoon Lee, The University of Houston, United States
- S11-3** BUSINESS PROCESS ENGINEERING IN THE CONSTRUCTION INDUSTRY
11:30 Brenda L. P. Yip, The University of Hong Kong, Hong Kong
- S11-4** THE CONFLICT MANAGEMENT STYLE ADOPTED BY THE SUBCONTRACTORS OF HONG KONG BUILDING PROJECTS
11:45 Andy K.W. Ng, City University of Hong Kong, Hong Kong
- S11-5** BASIC RESEARCH OF SUB-PACKAGE PROBLEM IN KOREAN CONSTRUCTION INDUSTRY
12:00 Jinho Shin, Seoul National University, Korea
- S11-6** A TIME DETERMINATION MODEL INCORPORATING RISK MANAGEMENT BASED ON MALAYSIAN CASE STUDIES
12:15 Sim Nee Ting, Universiti Malaysia Sarawak, Malaysia

S12 Cost, Time, Quality, and Safety Management**11:00-12:30****Crystal Hall B**

Chairperson: Chung-Suk Cho (University of North Carolina at Charlotte)

- S12-1** A STUDY ON DEVELOPING THE CALCULATION SYSTEM OF DISBURSEMENT FOR GOVERNMENT ON THE BTL PROJECTS
11:00 Chun-Kyong Lee, Mokwon University, Korea
- S12-2** SCRAPER EARTH-MOVING FLEET OPTIMIZATION VIA SPREADSHEET-BASED MODELING
11:15 Borinara Park, Illinois State University, United States
- S12-3** ECONOMIC ASSESSMENT OF THE SOLAR-ENERGY SYSTEM USING LIFE CYCLE COST ANALYSIS
11:30 Dong-Won Jang, University of Seoul, Korea
- S12-4** A STUDY ON THE DEVELOPMENT OF A COST MODEL BASED ON THE OWNER'S DECISION MAKING AT THE EARLY STAGES OF A CONSTRUCTION PROJECT
11:45 Choong-Wan Koo, HanmiParsons co., Ltd., Korea
- S12-5** A COST DATA-BASED ESTIMATING MODEL FOR FINISHES IN THE KOREAN PUBLIC OFFICE BUILDING PROJECTS
12:00 Joon-Oh Seo, HanmiParsons co., Ltd., Korea
- S12-6** COMPARATIVE STUDY ON LEGISLATION OF CONSTRUCTION EXPENSE PAYMENT BETWEEN CHINA AND TAIWAN REGION
12:15 Tian Han, Kyoto University, China

S13 Information Technology in Construction**11:00-12:30****Crystal Hall C**

Chairperson: Boong Yeol Ryoo (Florida International University)

- S13-1** IMPROVING RELIABILITY OF BRIDGE DETERIORATION MODEL USING GENERATED MISSING CONDITION RATINGS
11:00 Jung Baeg Son, Griffith University, Australia
- S13-2** FACTORS CLUSTERING APPROACH TO PARAMETRIC COST ESTIMATES AND OLAP DRIVER
11:15 JaeHo Cho, Dankook University, Korea
- S13-3** A STUDY ON DEVELOPING DECISION SUPPORT MODULES OF iPMS(INTELLIGENT PROGRAM MANAGEMEN INFORMATION SYSTEM) FROM ONTOLOGICAL PERSPECTIVE
11:30 Jae-Bok Lim, Hanyang University, Korea
- S13-4** INTEGRATION OF SSM AND IDEF TECHNIQUES FOR ANALYZING DOCUMENT MANAGEMENT PROCESSES
11:45 Vachara Peansupap, Chulalongkorn University, Thailand
- S13-5** A FRAMEWORK FOR ACTIVITY-BASED CONSTRUCTION MANAGEMENT SIMULATION
12:00 Boong Yeol Ryoo, Texas AM University, United States

S13-6 The DEVELOPMENT OF WORK PERFORMANCE ANALYSIS SYSTEM
12:15 Chul-Woo Lim, Kwangwoon University, Korea

S14 Construction Productivity Improvement

11:00-12:30 Crystal Hall D

Chairperson: Julian Kang (Texas A&M University)

- S14-1 FACTORS ACCOUNTING FOR activity-time and project-time UNCERTAINTIES IN BORED PILES CONSTRUCTION PLANNING: CASE STUDY on a building project in HONG KONG
11:00 Stephen K.K. Cheng, The Hong Kong Polytechnic University, Hong Kong
- S14-2 READABILITY TEST OF RFID TEMPERATURE SENSOR EMBEDDED IN FRESH CONCRETE
11:15 Julian Kang, Texas AM University, United States
- S14-3 ROLES AND RELATIONSHIPS BETWEEN ARCHITECTS AND CONTRACTORS BASED ON CONTRACTOR-DESIGNER ISSUE IN JAPAN
11:30 Sayaka Nishino, Kyoto University, Japan
- S14-4 GREENING ENGINEERING AND CONSTRUCTION EDUCATION: STRATEGIC ENTRY POINTS FOR SUSTAINABILITY IN EXISTING CURRICULA
11:45 Annie Pearce, Virginia Tech, United States
- S14-5 MODELLING ISSUES IN THE DEVELOPMENT OF A SIMULATION GAME FOR TEACHING CONSTRUCTION MANAGEMENT
12:00 Saad Al-Jibouri, University of Twente, Netherlands
- S14-6 VIRTUAL INTERACTIVE CONSTRUCTION EDUCATION (VICE) USING BIM TOOLS
12:15 Yong K. Cho, University of Nebraska-Lincoln, United States

S15 State-of-the-Art in Construction Engineering and Management

11:00-12:30 Crystal Hall E

Chairperson: Geoffrey Qiping Shen (The Hong Kong Polytechnic University)

- S15-1 DEVELOPMENT AND APPLICATION OF SUBSTRUCTURE NON SUPPORTING FORMWORK FOR TOP-DOWN CONSTRUCTION
11:00 Mee-Ra Jeong, Yonsei University, Korea
- S15-2 TEMPERATURE CONTROL AND COMPRESSIVE STRENGTH ASSESSMENT OF IN-PLACE CONCRETE STRUCTURES USING THE WIRELESS TEMPERATURE MEASURING SYSTEM BASED ON THE UBIQUITOUS SENSOR NETWORK
11:15 Ho Kyoo Jo, Hyundai EC, Korea
- S15-3 EVALUATION OF MINIMUM REVENUE GUARANTEE(MRG) IN BOT PROJECT FINANCE WITH OPTION PRICING THEORY
11:30 Jae Bum Jun, Korea Research Institute for Human Settlements(KRIHS), Korea
- S15-4 DEVELOPMENT OF CONCRETE FILLED TUBE AS A PILLAR PILE FOR TOP DOWN METHOD
11:45 Jee-Yun Song, Yonsei University, Korea
- S15-5 RECENT RESEARCH AND DEVELOPING TREND OF ENGINEERING MANAGEMENT IN CHINA BASED ON TEXT MINING
12:00 Shaohua Jiang, Dalian University of Technology, China
- S15-6 INCREASING REALISM OF CONSTRUCTION SIMULATION THROUGH INTEGRATION OF OPERATIONAL AND MANAGERIAL ASPECTS
12:15 Sangwon Han, University of New South Wales, Australia

S16 Project Management**15:40-17:40****Crystal Hall A**

Chairperson: Iris Tommelein (University of California, Berkeley)

- S16-1** **IMPLEMENTATION OF GOVERNMENT E-PROCUREMENT:**
15:40 Budi Hasiholan, Hokkaido University, Japan
- S16-2** **A FRAMEWORK FOR SIMULATING CONSTRUCTION PROCESSES FOR OPTIMIZING THE FLOOR CONSTRUCTION CYCLE USING BIM**
15:55 Seung-Jun Ahn, Seoul National University, Korea
- S16-3** **XML-based Information Model for Interactive Electronic Technical Manual for Urban Regeneration Project**
16:10 Sunghoon Kang, Seoul National University, Korea
- S16-4** **DEVELOPMENT OF FEASIBILITY ANALYSIS MODEL FOR DEVELOPER-REQUESTED HOUSING PROJECTS**
16:25 Young-Ki Huh, Pusan National University, Korea
- S16-5** **POTENTIAL PROBLEMS OF RUNNING BUILDING MAINTENANCE PROJECTS IN CONSTRUCTION**
16:40 Edmond W.M. Lam, The Hong Kong Polytechnic University, Hong Kong
- S16-6** **A COMPUTER SIMULATION MODEL AS A MEANS OF EMERGENCY EVACUATION TRAINING FOR CONSTRUCTION PROJECTS**
16:55 Chung-Suk Cho, University of North Carolina at Charlotte, United States

S17 Cost, Time, Quality, and Safety Management**15:40-17:40****Crystal Hall B**

Chairperson: Yong-Woo Kim (University of Washington)

- S17-1** **APPLICATION OF WIFI-BASED INDOOR LOCATION MONITORING SYSTEM FOR LABOR TRACKING IN CONSTRUCTION SITE**
15:40 - A CASE STUDY in Guangzhou MTR
Sunkyu Woo, Yonsei University, Korea
- S17-2** **A STUDY ON INTANGIBLE ASSET EVALUATION MODELING FOR**
15:55 Soyeon Lim, Chonnam National University, Korea
- S17-3** **COST ESTIMATE AT EARLY STAGE**
16:10 Kihoon Seong, Seoul National University, Korea
- S17-4** **SAFETY MANAGEMENT SYSTEM PROTOTYPE BASED ON BIM WITH RTLS**
16:25 Kwang-pyo Lee, Seoul National University, Korea
- S17-5** **SUCCESS STORY OF THE SHIPBUILDING AND REPAIR INDUSTRY IN ACHIEVING EXCELLENT SAFETY PERFORMANCE: A LESSON FOR THE CONSTRUCTION INDUSTRY**
16:40 George Ofori, National University of Singapore, Singapore
- S17-6** **APPLYING A STOCHASTIC LINEAR SCHEDULING METHOD TO PIPELINE CONSTRUCTION**
16:55 Sang-Hoon Lee, University of Houston, United States
- S17-7** **CAN YOU PREDICT THE PRODUCTION PERFORMANCE USING THE MAKE-READY PERFORMANCE?**
17:10 Yong-Woo Kim, University of Washington, United States

S18 Information Technology in Construction**15:40-17:40****Crystal Hall C**

Chairperson: Chul S. Kim (Indiana State University)

- S18-1** **3D WALK-THROUGH ENVIRONMENTAL MODEL FOR VISUALIZATION OF INTERIOR CONSTRUCTION PROGRESS MONITORING**
15:40 Seungjun Roh, University of Illinois at Urbana and Champaign, United States
- S18-2** **INTEGRATED CONSTRUCTION PROJECT PLANNING**
15:55 Deok-Won Kim, Chung Ang University, Korea
- S18-3** **PERFORMANCE MANAGEMENT SYSTEM FOR BENCHMARKING IN CONSTRUCTION COMPANIES**
16:10 You-Jin Jang, Seoul National University, Korea
- S18-4** **AN ONTOLOGY SCHEME FOR DISCRIMINATING CONSTRUCTION IETM FROM EXISTING INFORMATION SYSTEMS**
16:25 Jinwook Jeong, Seoul National University, Korea
- S18-5** **ONTOLOGY BASED KNOWLEDGE RETRIEVAL IN CONSTRUCTION PROJECTS: FOCUSED ON THE CONSTRUCTION PROCESS**
16:40 Kyung-won Lee, Seoul National University, Korea

S18-6 THE USE OF MOBILE COMPUTERS FOR CONSTRUCTION PROJECTS
16:55 Chul S. Kim, Indiana State University, United States

S19
15:40-17:40

Construction Productivity Improvement / International and Global Issues in Construction Project Management

Crystal Hall D

Chairperson: Seng-Kiong Ting (Nanyang Technological University)

- S19-1 CONSTRUCTION FINANCING AND INDUSTRY DEVELOPMENT
15:40 Yat-Hung, Chiang, The Hong Kong Polytechnic University, Hong Kong
- S19-2 LEARNING LEADERSHIP SKILLS FROM PROFESSIONALS IN THE CONSTRUCTION INDUSTRY
15:55 Younghan Jung, Virginia Tech, United States
- S19-3 COMPRESSIVE STRENGTH OF FRP-CONFINED CONCRETE COLUMNS UNDER THE ECCENTRIC LOADS
16:10 H.R. Salehian, Islamic Azad University, Iran
- S19-4 LABOR PRODUCTIVITY MODEL FOR REINFORCED CONCRETE CONSTRUCTION PROJECTS
16:25 Kyong Hoon Kim, Hanyang University, Korea
- S19-5 LEARNING FROM THE KOREAN RISK MANAGEMENT PLAN FOR THE SHIPBUILDING INDUSTRY DURING THE DIFFICULT 2004-2005 YEARS
16:40 Seng-Kiong Ting, Nanyang Technological University, Singapore
- S19-6 MODELS FOR PREDICTING SINGAPORE CONTRACTORS' EXTENT OF INTERNATIONALIZATION
16:55 Florence Y.Y. Ling, National University of Singapore, Singapore
- S19-7 PROGRAMMATIC AND PROJECT-LEVEL RISKS: ESTABLISHING A RISK MANAGEMENT PROCESS FOR MIDDLE EAST PLANT PROJECTS
17:10 G. Edward Gibson, Texas AM University, United States
- S19-8 KOREAN REAL ESTATE MARKET AND BOOSTING POLICIES: FOCUSING ON MORTGAGE LOANS
17:25 Sungjoo Hwang, Seoul National University, Korea

S20
15:40-17:40

Design and Engineering Management

Crystal Hall E

Chairperson: Beom-Yong Sung (Takenaka Europe)

- S20-1 EMPIRICAL ASSOCIATIONS BETWEEN INTELLECTUAL CAPITAL AND PERFORMANCE OF ARCHITECTURE FIRMS
15:40 Chung-Fah Huang, National Kaohsiung University of Applied Sciences, Taiwan
- S20-2 EFFECTS OF ADOPTING KMS BASED BUSINESS PROCESS MANAGEMENT IN DESIGN COMPANIES IN KOREA
15:55 Jin-Won Hwang, Soongsil University, Korea
- S20-3 INTEGRAL METHODS OF FUZZY AHP AND DSM FOR EVALUATION IN PARTITIONING DESIGN TEAMS
16:10 Lou Y. Liang, Leader University, Taiwan
- S20-4 OPTIMAL DESIGN ALGORITHM OF THE FOUNDATION OF TOWER CRANES
16:25 Sang-Yeon Ryu, Kyung Hee University, Korea
- S20-5 INCORPORATING CONTEXT LEVEL PARAMETERS TO IMPROVE OPERATION ANALYSIS IN STEEL FABRICATION SHOPS
16:40 SangHyun Lee, University of Alberta, Canada
- S20-6 OPTIMIZATION ALGORITHM FOR AUTOMATIC LAYOUT OF TOWER CRANES
16:55 Dong-Hoon Lee, Kyung Hee University, Korea

Posters

Diamond Hall Lobby

- P1** AUTOMATED PROGRESS MEASUREHEMT FOR CONTRUCTION PROJECT
Seunghee Kang, Korea National Housing Corporation, Korea
- P2** DEVELOPMENT OF DESIGN FOR AUTOMATION (DFA) BASED ON QUALITY FUNCTION DEPLOYMENT
Tae-Hoon Kim, Korea University, Korea
- P3** ANALYSIS ON FABRICATION PROCESS OF STEEL STRUCTURES USING AUTOMATIC CONSTRUCTION SYSTEM
Hak-Ju Lee, Korea University, Korea
- P4** PERFORMANCE EVALUATION INDEX FOR COMPARING TRADITIONAL CONSTRUCTION METHODS WITH A ROBOT-BASED AUTOMATED CONSTRUCTION METHOD
Donguk Oh, Korea University, Korea
- P5** WORKFORCE INFORMATION DATABASE AND RFID TECHNOLOGY TO TRACK AND MANAGE WORKFORCE INFORMATION
Sangchul Kim, Hanbat National University, Korea
- P6** DATABASE PROGRAM FOR MANAGING MANAGEMENT RESOURCES:GENERAL CONTRACTOR'S PERSPECTIVES
Yong-Woo Kim, University of Washington, United States
- P7** DEFORMED BUILDING DESIGN AND FABRICATION BASED ON THE PARAMETRIC TECHNOLOGY
Eonyong Kim, Hanyang University, Korea
- P8** AN AUTOMATED FORMWORK MODELING SYSTEM DEVELOPMENT FOR QUANTITY TAKE-OFF BASED ON BIM
Sangyoon Chin, Sungkyunkwan University, Korea
- P9** DEVELOPMENT OF BIM-BASED DECISION-MAKING SUPPORT SYSTEM
Dong-Gun Lee, Ajou University, Korea
- P10** A STUDY ON MUTUAL COMMUNICATION SYSTEM BUILDING FOR CUSTOMER SATISFACTION
Jong-Chul Go, POSCO Construction and Engineering co. ltd, Korea
- P11** SPACE STRUCTURE ANALYSIS OF COMPLEX CULTURE SHOPPING FACILITY.
Jae-Hong Hwang, Hanyang University, Korea
- P12** DECISION SUPPORT SYSTEM FOR OPTIMAL SELECTION OF HAUL ROUTES BASED ON TIME SLOTS IN EARTHMOVING OPERATION
Sang-Hyeok Kang, Hanyang University, Korea
- P13** MULTIPLE LINEAR REGRESSION APPROACH FOR PRODUCTIVITY ESTIMATION OF BULLDOZERS
Abbas Rashidi, Islamic Azad University, Iran
- P14** A LINKING METHOD OF INFORMATION FACTORS FOR ADOPTING STANDARD MATERIALS INTO APARTMENT HOUSING CONSTRUCTION
Geun-Soo Park , Korea Institute of Construction Technology, Korea
- P15** A STUDY FOR RFID APPLICATION OF CONSTRUCTION MATERIALS
Choong-Han Han , Korea Institute of Construction Technology, Korea
- P16** CONFIGURATION METHOD OF HEALTH & SAFETY RULE FOR IMPROVING PRODUCTIVITY IN CONSTRUCTION SPACE BY MULTI-DIMENSION CAD SYSTEM
Hyoum-Seok Moon, Gyeongsang National University, Korea
- P17** DEVELOPMENT OF PERFORMANCE MEASURES IN ASSET MANAGERMENT FOR BRIDGE MANAGEMENT IN KOREA
Cheolwoo Park, Kangwon National University, Korea
- P18** PROCESS RESEARCH FOR DEVELOPMENT-Focused on PUBLIC OFFICE BUILDING PROJECT-
Soo-Min Kim, Dankook University, Korea
- P19** A STUDY ON RISK WEIGHT USING FUZZY IN REAL ESTATE DEVELOPMENT PROJECTS
Sung Cho, Yonsei University, Korea
- P20** ESTIMATING COSTS DURING THE INITIAL STAGE OF CONCEPTUAL PLANNING FOR PUBLIC ROAD PROJECTS: CASE-BASED REASONING APPROACH
Seokjin Choi, Yonsei University, Korea

- P21 **A STUDY ON THE LIFE-CYCLE FOR SELECTING A GRATING**
Yun-Sik Kim, University of Seoul, Korea
- P22 **FUNCTION ORIENTED VE ALTERNATIVES EVALUATION PROCEDURE USING FUNCTION CLASSIFICATION**
Jong-Hyeob Kim, University of Seoul, Korea
- P23 **ACCURACY IMPROVEMENT OF AN APPROXIMATE COST**
Siwook Lee, Inha University, Korea
- P24 **A STUDY ON DURATION ESTIMATE METHOD**
Jae H. Park, Yonsei University, Korea
- P25 **QUALITY MANAGEMENT OF ECOLOGICAL ENGINEERING**
Ying-Mei Cheng, China University of Technology, Taiwan
- P26 **SCHEMATIC ESTIMATING MODEL FOR CONSTRUCTION PROJECTS –USING PRICIPLE COMPONENT ANALYSIS AND STRUCTURAL EQUATION METHOD**
Young-Sil Jo, Seoul National University, Korea
- P27 **INFLUENCE FACTOR-BASED RISK ASSESSMENT METHODOLOGY FOR CONSTRUCITON**
Hyunsoo Kim, Seoul National University, Korea
- P28 **ESTABLISHMENT OF SAFETY GUIDELINES FOR ELDERLY CONSTRUCTION WORKERS**
Jeong-Cheol Lee, University of Incheon, Korea
- P29 **AN APPROXIMATE COST ESTIMATING MODEL**
Daehee Lim, Kunwon Engineering CO., LTD., Korea
- P30 **FUZZY-BASED APPROACH FOR EVALUATING THE PERFORMANCE**
Sung-Woo Yang, Korea University, Korea
- P31 **THE STUDY ON THE ANALYSIS OF ELEMENTAL MAINTENANCE COSTS FOR EDUCATIONAL FACILITIES**
Hyun-Wook Kang, Chung Ang University, Korea
- P32 **WEB-BASED GEOGRAPHIC INFORMATION SYSTEM**
HoYun Kang, Pusan National University, Korea
- P33 **THE DEVELOPMENT OF AUTOMATIC MODULE FOR FORMWORK LAYOUT USING THE BIM**
Chijoo Lee, Yonsei university, Korea
- P34 **AN EVALUATION ON THE EFFECTIVE FLEXURAL RIGIDITY OF RC SLABS**
Jae-Joong Shim, Sungkyunkwan University, Korea
- P35 **PARKING GUIDE AND MANAGEMENT SYSTEM WITH RFID AND WIRELESS SENSOR NETWORK**
Gue Hun Kim, Chungnam National University, Korea
- P36 **ANALYZING CAUSES OF CHANGE ORDERS IN KOREA ROAD PROJECTS**
Kang-Wook Lee, Yonsei University, Korea
- P37 **ESTABLISHMENT OF DECISION MAKING FRAMEWORK FOR SUPPORTING COOPERATION AMONG STAKEHOLDERS IN MEGA PROJECT**
Jee Hee Lee, Ewha Womans University, Korea
- P38 **THE STUDY OF MULTI-LEVEL PERFORMANCE MEASUREMENT APPROACH FOR VALUE MANAGEMENT OF CIVIL INFRASTRUCTURE PROJECTS**
Dong-Youl Lee, Chungnam National University, Korea
- P39 **PRELIMINARY STUDY REGARDING A DB CONSTRUCTION PLAN TO SUPPORT PERFORMANCE TECHNICAL A REMODELING ELEMENT TO BIM**
Yong-Hyun Lee, Dankook University, Korea
- P40 **MODEL FOR DESIGN MANAGEMENT IN COLLABORATIVE ENVIRONMENT USING DESIGN STRUCTURE MATRIX AND DESIGN PARAMETERS' INFORMATION**
Salman Akram, Hanyang University, Korea
- P41 **EFFECT OF CONCRETE STRENGTH ON FLEXURAL DEFLECTION OF HIGH-STRENGTH REINFORCED CONCRETE BEAMS**
Inju Lee, Sungkyunkwan University, Korea

- P42 IMPLEMENTATION OF PRODUCT DATA MANAGEMENT SYSTEM FOR DESIGN OF BRIDGE STRUCTURES**
Kwangmyong Lee, Sungkyunkwan University, Korea
- P43 WIRELESS SENSOR NETWORK BASED BRIDGE MANAGEMENT SYSTEM FOR INFRASTRUCTURE ASSET MANAGEMENT**
Jung-Yeol Kim, Korea Institute of Construction Technology, Korea
- P44 THE MODULES ADVENCEMENT TO DEVELOP PMIS INTO FMS IN THE CASES OF MEDICAL FACILITIES**
Jong-Soon Park, TOPEC CO.,LTD., Korea
- P45 A BLOG BASED RISK MANAGEMENT SYSTEM USING SOFT SCHEDULE**
Soo-Myeong Jin, kyungwon University, Korea
- P46 INDICATOR FOR PERFORMANCE MANAGEMENT OF CONSTRUCTION CALS**
In-Su Jung, Korea Institute of Construction Technology, Korea
- P47 DEVELOPMENT OF AN OBJECT-RELATIONAL IFC SERVER**
Hoon-sig Kang, Yonsei University, Korea
- P48 A FUNDAMENTAL STUDY TO DEVELOP STANDARD TECHNOLOGY CRITERIA FOR IT-CONSTRUCTION FUSION TECHNOLOGIES, TO BE APPLIED TO A U-CITY**
Kyoon-Tai Kim, Korea Institute of Construction Technology, Korea
- P49 SIMULATION SYSTEM FOR EARTHMOVING OPERATION WITH TRAFFIC FLOW**
Kyoungmin Kim, Chung Ang University, Korea
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