



Fifth International Conference on
Construction in the 21st Century

*Collaboration and Integration in Engineering,
Management and Technology*

May 20-22, 2009

**Novotel Istanbul Hotel
Istanbul, Turkey**

Conference Program

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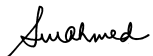
Welcome to CITC-V Istanbul 2009

Welcome to the **Fifth International Conference on Construction in the 21st Century: Collaboration and Integration in Engineering, Management and Technology** jointly organized by the Middle East Technical University, Ankara, Turkey and the Florida International University, Miami, Florida, USA. In this conference we have put together an elaborate program with 215 papers covering almost all aspects of construction.

It is a great honor and privilege for us, to host the CITC-V conference in Istanbul. This city is a true bridge between Europe and Asia; a bridge between cultures and a melting pot of civilizations. Istanbul has always been a city of tolerance where mosques, churches and synagogues existed side by side. Finally it will be a scientific bridge between West and East; exchanging ideas and research data of distant geographies. This congress will address different perspectives of the construction industry, in a city on two continents, historically and geographically connecting North Africa, Middle East, Central Asia and East Europe.

Please use this opportunity to meet and greet your fellow “constructioners” from all over the world. Enjoy the beautiful weather at this time in Istanbul. We hope you will, besides attending the conference, find time to go to the historic sites, wonderful shopping bazaars and many other local attractions. Please feel free to contact any member of the organizing committee during the conference if you have questions or need assistance.

Finally, on behalf of both Middle East Technical University and Florida International University, we wish you a very pleasant stay in Istanbul during this conference.



Syed M. Ahmed
Chair CITC-V
Department of Construction Management
College of Engineering and Computing
Florida International University
Miami, Florida, USA



M. Talat Birgonul
Co-Chair CITC-V
Division of Construction Engineering and Management
Civil Engineering Department
Middle East Technical University
Ankara, Turkey



Salman Azhar
Technical Chair CITC-V
McWhorter School of Building Science
College of Architecture, Design & Construction
Auburn University
Auburn, Alabama, USA



Irem Dikmen
Program Chair CITC-V
Division of Construction Engineering and Management
Civil Engineering Department
Middle East Technical University
Ankara, Turkey

Appreciation

We appreciate the hard work and help of the following persons in the organization of this conference.

Mr. Rizwan Farooqi (FIU)

Mr. Kamallesh Panthi (FIU)

Ms. Mayerling Caldera (FIU)

Ms. Erika Olsen (FIU)

Ms. Yanming Zheng (FIU)

Ms. Bernadette Chung (FIU)

Mr. Seth Cochran (Auburn)

Conference Program at a Glance

May 19, 2009 (Tuesday)

Time	Room: Level One Foyer
03:00 PM – 06:00 PM	Action Research Workshop (Room: Golden Horn 1)
02:00 PM – 08:30 PM	Conference Registration (Foyer)
06:30 PM – 08:00 PM	Cocktail Reception (Pool Side)

May 20, 2009 (Wednesday)

Time	Room: Marmara 1	Room: Marmara 2	Room: Marmara 3	Room: Golden Horn 1
08:00AM – 05:00PM	Conference Registration (Foyer)			
09:30AM – 10:00AM	Opening Ceremony (Marmara Suite)			
10:00AM – 11:00AM	Keynote Speech 1: Prof. David Arditì, Illinois Institute of Technology, USA (Marmara Suite)			
11:00AM – 11:20AM	Coffee Break (Foyer)			
11:20AM – 12:40PM	<i>Session A1:</i> Cost and Financial Management-I	<i>Session B1:</i> Project Planning and Control-I	<i>Session C1:</i> Information Technology-I	<i>Session D1:</i> Engineering Design Issues and Solutions-I
12:40PM – 02:00PM	Lunch (Nov'ist Restaurant)			
02:00PM – 03:20PM	<i>Session A2:</i> Cost and Financial Management-II	<i>Session B2:</i> Project Planning and Control-II	<i>Session C2:</i> Information Technology-II/ Information Systems-I	<i>Session D2:</i> Engineering Design Issues and Solutions-II
03:20PM – 03:40PM	Coffee Break (Foyer)			
03:40PM – 05:20PM	<i>Session A3:</i> Decision Making and Risk Analysis-I	<i>Session B3:</i> Project Management Issues-I	<i>Session C3:</i> Building Information Modeling-I	<i>Session D3:</i> Construction Technologies-I/ Information Systems-II

May 21, 2009 (Thursday)

Time	Room: Marmara 1	Room: Marmara 2	Room: Marmara 3	Room: Golden Horn 1
09:30AM – 10:30AM	Keynote Speech 2: Prof. Ghassan Aouad, The University of Salford, UK (Marmara Suite)			
10:30AM – 11:00AM	Coffee Break (Foyer)			
11:00AM – 12:40PM	<i>Session A4:</i> Cost and Financial Management-III	<i>Session B4:</i> Legal and Contractual Issues-I	<i>Session C4:</i> Info Tech-III / Info Systems-III / BIM-II	<i>Session D4:</i> Engineering Design Issues and Solutions-III
12:40PM – 02:00PM	Lunch (Nov'ist Restaurant)			
02:00PM – 03:20PM	<i>Session A5:</i> Cost Management-IV/ Decision Making and Risk Analysis-II	<i>Session B5:</i> Safety and Quality Management-I	<i>Session C5:</i> Procurement Management-I	<i>Session D5:</i> Sustainable Construction Techniques-I
03:20PM – 03:40PM	Coffee Break (Foyer)			
03:40PM – 05:20PM	<i>Session A6:</i> Decision Making and Risk Analysis-III	<i>Session B6:</i> Project Planning and Control-III/ Legal and Contractual Issues-II	<i>Session C6:</i> Safety and Quality Management-II/ Procurement Management-II	<i>Session D6:</i> Facilities Management-I/ Sustainable Construction Techniques-II
08:00 PM – 11:30 PM	Gala Dinner (Kervansaray Night Club)			

May 22, 2009 (Friday)

Time	Room: Marmara 1	Room: Marmara 2	Room: Marmara 3	Room: Golden Horn 1
09:30AM – 11:10AM	<i>Session A7 (Invited Talk):</i> “How a research based program was built in Botswana with minimal funding and resources” by Dean Kashiwagi, Arizona State University, USA	<i>Session B7:</i> Decision Making and Risk Analysis-IV	<i>Session C7:</i> Knowledge Management-I	<i>Session D7:</i> Sustainable Construction Techniques-III
11:10AM – 11:30AM	Coffee Break (Foyer)			
11:30AM – 12:50PM	<i>Session A8:</i> Project Management Issues-II	<i>Session B8:</i> Safety and Quality Management-III	<i>Session C8:</i> Project Management III/ Education and Training-I/ International Issues-I	<i>Session D8:</i> Education and Training-II
12:50PM – 02:00PM	Lunch (Nov'ist Restaurant)			
02:00PM – 04:00PM	<i>Session A9:</i> Project Management Issues-IV	<i>Session B9:</i> Project Delivery Systems-I/ Legal and Contractual Issues-III	<i>Session C9:</i> International Issues-II	<i>Session D9:</i> Knowledge Management-II/ Education-III/ Construction Technology-II
04:00PM – 04:30PM	Conference Closing Reception (Foyer)			

Keynote Speakers

Professor David Arditi

Director of Construction Engineering and Management Program
Department of Civil, Architectural and Environmental Engineering
Illinois Institute of Technology
3201 South Dearborn Street
Alumni Memorial Hall, Room 229
Chicago, IL 60616

Speech Topic: The Risk of Contractor Default

Speech Synopsis: One of the most important risks in the construction process is the risk of contractor default. It is in the interest of contractors to understand failure patterns and why construction companies fail, and to predict company decline and prevent failure. It is in the interest of construction owners to protect themselves against contractor default, and to identify contractors that are likely to default. It was found that company failure is age dependent; that there are liabilities of newness, adolescence and smallness; that most causes of failure can be prevented by short-term management action; that it is possible to predict the state of decline of a company by using non-financial data; that the owner can use intelligent/economic protection against contractor default; and that subcontractor default may be an important part of the equation.

Professor Ghassan Aouad

Pro-Vice Chancellor for Research & Innovation
The University of Salford
The Old Fire Station Salford, M5 4WT, UK

Speech Topic: Exploring the Issues for Innovation Platforms for the Future of Construction Industry: Scenario Planning Approach

Speech Synopsis: The construction industry needs to be responsive to the economic, social, and technological challenges that the world is facing in order to maintain its competitiveness. Innovation is accepted to be one of the key drivers of economic growth and competitiveness and so business and policy should be aligned to ensure the success of innovation. To this end, innovation platforms are a new way of working for government and business that enable the integration of a range of technologies and better coordination of policy and procurement. To be effective, an innovation platform in construction would need to be able to respond to the diverse needs of the sector and the diverse ways in which innovation can happen. Since the needs of the industry are continuously changing, identifying possible futures is a must to inform the strategic planning and programme of work for such a platform. Scenario techniques have been used as a strategic planning tool for years in order to develop a future vision and a strategic action plan. His speech will focus on the use of a scenario planning approach as an enabler to develop a strategic action plan for the implementation of innovation platforms in order to realise a preferred construction future.

Detailed Conference Program

May 19, 2009 (Tuesday)

03:00PM – 06:00PM Action Research Workshop (Room: Golden Horn 1)

02:00PM – 08:30PM Conference Registration (Foyer)

06:30PM – 08:00PM Cocktail Reception (Pool Side)

May 20, 2009 (Wednesday)

08:00AM – 05:00PM Conference Registration (Foyer)

09:30AM – 10:00AM **Opening Ceremony (Marmara Suite)**

Opening Remarks and Introductions by *Syed M. Ahmed*, CITC-V Chair

Welcome Remarks by *Irem Dikmen*, CITC-V Program Chair

Welcome Remarks and Introduction of Keynote Speakers by *M. Talat Birgonul*,
CITC-V Co-Chair

10:00AM – 11:00AM Keynote Speech 1: Professor David Arditi (Marmara Suite)

Session Chair: İrem Dikmen, CITC-V Program Chair

11:00AM – 11:20AM Coffee Break

11:20AM – 12:40PM Paper Presentations (Parallel Sessions-1)

Session A1: Cost and Financial Management-I (Room: Marmara 1)

Session Chair: Rajan Sen, University of South Florida, USA

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| Paper 4. | 11:20-11:40 | An Artificial Neural Network for the Pre-Estimation of Construction Costs for Electrical and Mechanical Installations on Road Tunnels
<i>Alexander Maravas, John Paris Pantouvakis, Dimitrios Kaltsas</i> |
| 6. | 11:40-12:00 | An Overview of Implementation of Private Finance Initiative (PFI) in Malaysian Construction Industry
<i>Shamsida Hj Saidan Khaderi, Sr Abdul Rashid Abdul Aziz</i> |
| 7. | 12:00-12:20 | Construction-Friendly Bank: A Pre-Feasibility Study
<i>Vasantha Abeysekera</i> |
| 11. | 12:20-12:40 | Factors Affecting Project Cost and Time in Construction
<i>Aynur Kazaz, Nihan Avcioğlu Tunçbilekli</i> |

Session B1: Project Planning and Control-I (Room: Marmara 2)

Session Chair: David Greenwood, Northumbria University, UK

- Paper 11:20-11:40 Construction Sequence Planning – An Interaction Diagram to Determine the Output of
45. Reinforced Concrete Works
Christian Hofstadler
46. 11:40-12:00 Application of Chronometric Measurement and Simulation Systems for Better Planning
and More Productive Execution of Construction Projects in Croatia
Vedran Žerjav, Jadranko Izetbegović, Stjepan Bezak
49. 12:00-12:20 Historical Data-based and Simulation-Aided Probabilistic Approach for Cost-Time control
Heedae Park, Seung Heon Han, Donghoon Yeo, Bo Seong Kang
56. 12:20-12:40 Estimating Pavement Maintenance Costs under Performance-Based Contracts
Kamalesh Panthi, Syed M. Ahmed, Rizwan U. Farooqui

Session C1: Information Technology-I (Room: Marmara 3)

Session Chair: Anita Cerić, Univerisity of Zagreb, Croatia

- Paper 11:20-11:40 Automated Planning of Collision-Free Paths for Material Handling Equipment
143. *Kevin Tantisevi*
144. 11:40-12:00 Managing Information Technology in Construction: Case of the Turkish Construction
Industry
Gul Polat
145. 12:00-12:20 Digital Technologies in Built Environment - An Overview
Emine Mine Thompson
147. 12:20-12:40 Elevating Construction Equipment Fleet Management To a New Level: An Evaluation of
Use of Telematics Technology
Erdogan M. Sener, Tom Iseley

Session D1: Engineering Design Issues and Solutions-I (Room: Golden Horn 1)

Session Chairs: Abid Nadeem and Johnny Mok, Hong Kong College of Technology, Hong Kong

- Paper 11:20-11:40 Performance Based Lab Tests to Predict Pavement Fatigue
171. *Bernhard Hofko, Ronald Blab*
172. 11:40-12:00 Properties of Recycled Aggregate Concrete with Various Aggregate to Cement Ratios
D. Kotrayothar, C.Y.Lo, Vivian W.Y. Tam
173. 12:00-12:20 Experimental and Numerical Investigation of Steel Tension Members With Holes
P. Arasaratnam, M. Tait, K.S. Sivakumaran
174. 12:20-12:40 Application of Ultrasonic Measurements for Determination of Setting and Hardening in
Cement Paste
Ivan Gabrijel, Dunja Mikulić, Bojan Milovanović

12:40PM – 02:00PM Lunch (Nov'ist Restaurant)

02:00PM – 03:20PM Paper Presentations (Parallel Sessions-2)

Session A2: Cost and Financial Management-II (Room: Marmara 1)

Session Chair: *Gul Polat, Istanbul Technical University, Turkey*

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| Paper 8. | 02:00-02:20 | Building Theory on Monetary Retention Regimes
<i>Vasantha Abeysekera, Priyanka Raina, Thomas Netizert</i> |
| Paper 9. | 02:20-02:40 | Sustainable Construction: Private Finance Initiative (PFI) Road Cases in the UK - The Theory
<i>Rifat Akbiyikli, David Eaton</i> |
| 10. | 02:40-03:00 | Sustainable Construction: Private Finance Initiative (PFI) Road Cases in the UK - The Reality
<i>Rifat Akbiyikli, David Eaton</i> |
| 13. | 03:00-03:20 | Cost Estimation of Trackworks of Lightrail and Metro Projects
<i>Murat Gunduz, Erhan Ozturk</i> |

Session B2: Project Planning and Control-II (Room: Marmara 2)

Session Chair: *Lincoln H. Forbes, Miami-Dade County Schools Office, USA*

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| Paper 50. | 02:00-02:20 | Project Performance Measurement: Implications of Current Trends on the Project Manager's Responsibility
<i>Achimba Chibueze Ogbonna</i> |
| 51. | 02:20-02:40 | Planning of Linear Construction Projects Using Geographic Information Systems
<i>Rifat Sonmez, Furkan Uysal</i> |
| 52. | 02:40-03:00 | A Solution for Developing the Algorithm of Transferring Cost Estimation Data to a CPM Program via Construction Management ERP Software
<i>Ahmet Avinal</i> |
| 53. | 03:00-03:20 | How Should Expertise Classification be Evaluated within Construction Planning?
<i>Ahmet Avinal</i> |

Session C2: Information Technology-II/Information Systems-I (Room: Marmara 3)

Session Chair: *Emine Mine Thompson, Northumbria University, UK*

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| Paper 149. | 02:00-02:20 | Management Information System: An Innovative Tool for Monitor and Control all Corporate Processes Related with the Construction of the New Railway in Greece
<i>Stavros E. Stavrinoudakis</i> |
| 152. | 02:20-02:40 | Information-oriented Integrated Design Management System
<i>JaeWon Shin, Sang Hyuk Park</i> |
| 153. | 02:40-03:00 | Development of the 3D Computer System to Quantify Automatically Construction and Demolition Waste
<i>Chang-Hak Kim, Leen-Seok Kang, Jae-Ho Pyeon</i> |
| 154. | 03:00-03:20 | On the Genetic Algorithm Optimization of Non-Geometric Brace Systems
<i>H. A. Mosalman Yazdi, N. H. Ramli Sulong</i> |

Session D2: Engineering Design Issues and Solutions-II (Room: Golden Horn 1)

Session Chair: Erdogan Sener, Indiana University-Purdue University Indianapolis (IUPUI), USA

- Paper 02:00-02:20 Numerical Study of the Base Fixity
175. **Mohamed Ragaee Badr Kottb, Ehab Hassan Ahmed Hassan Aly**
176. 02:20-02:40 Strength and Permeability of Concrete in Constructing Oil Storage Tanks
Mehran Amiri Ghalehno
180. 02:40-03:00 A Revolutionary Concept in PSC Bridge Girder Design Having Holes in the Web
Man Yop Han, Sokhwan Choi, Yong-Sik Jeon
181. 03:00-03:20 Connector Stiffness of 'Peva-Cemboard' Screwed Connection in Profiled Steel Sheet Dry Board (PSSDB) Panel
Norhaiza Nordin, Wan Hamidon Wan Badaruzzaman, Hanizam Awang

03:20PM – 03:40PM Coffee Break

03:40PM – 05:20PM Paper Presentations (Parallel Sessions-3)

Session A3: Decision Making and Risk Analysis-I (Room: Marmara 1)

Session Chair: Muge Mukaddes Darwish, Texas Tech University, USA

- Paper 03:40-04:00 Regeneration Decision-making: Some Early 'Opportunities' and Decisions for SUREgen
35. **Amanda Marshall-Ponting**
39. 04:00-04:20 Case Studies of the Applicability of Risk Management Practice in Klang Valley, Malaysia
Norazian Mohamad Yusuwan, Hamimah Adnan, Ahmad Faris Omar
22. 04:20-04:40 Vulnerability Assessment of Waterfront Residential Properties to Climate Change
Oz Sahin, Sherif Mohamed
26. 04:40-05:00 Equipment Supplier Selection Under Multiple Criteria
Georgios N. Aretoulis, Stella Papapavlou - Ioakeimidou, Glykeria P. Kalfakakou, Konstantinos I. Anastasiadis
37. 05:00-05:20 Risk Analysis in Transport Infrastructure Concession Project Funding: The Case of Thessaloniki Submerged Highway Project
Panagiotis Papaioannou, George Aretoulis

Session B3: Project Management Issues-I (Room: Marmara 2)

Session Chair: Vasantha Abeysekera, AUT University, New Zealand

- Paper 03:40-04:00 Profiling the Modern Project Manager
69. **Georgios N. Aretoulis, Eleni N. Aretouli, Demos C. Angelides, Glykeria P. Kalfakakou**
70. 04:00-04:20 The Attributes of Malaysian Construction Clients during Briefing Process and Factors Influencing Them: A Comparison between Public and Private Clients
Norizan Ahmad, Ismail Rahmat, Rahasnan Abd Rashid
71. 04:20-04:40 Better Understanding of Project Management for Small Contractors in Malaysia
Hamimah Adnan, Aizuddin Che Mansor
83. 04:40-05:00 Lean Construction Principles, Prerequisites, and Strategies for Implementation
Lincoln H. Forbes
104. 05:00-05:20 A Study on Malaysian Legal Framework and Risk Management: Design Works
Zul Zakiyuddin Ahmad Rashid, Hamimah Adnan

Session C3: Building Information Modeling-I (Room: Marmara 3)

Session Chair: Michael Hein, Auburn University, USA

- Paper 03:40-04:00 Integration of 4D and Model Based Scheduling
161. ***Can Ersen Firat, Kalle Kähkönen, David Arditi, Juhani Kiiras***
163. 04:00-04:20 An Assessment of Industry Foundation Classes (IFC) in Representing Contextual Information Required for Production Rate Estimations
Semiha Kiziltas, Burcu Akinci
164. 04:20-04:40 Two BIM Based Web-Service Patterns: BIM SOAP Façade and RESTful BIM
Umit Isikdag, Jason Underwood
165. 04:40-05:00 Towards Implementation of Building Information Modelling in the Construction Industry
Yusuf Arayici, Farzad Khosrowshahi, Amanda Marshall-Ponting, Sas Mihindu
168. 05:00-05:20 Whole Building Design Approach for University Facility Managers: A Template Using Building Information Modeling
Anoop Sattineni, Joseph Thuston

Session D3: Innovative Construction Technologies-I/Information Systems-II (Room: Golden Horn 1)

Session Chair: Tahir Celik, Eastern Mediterranean University, North Cyprus

- Paper 03:40-04:00 Development of a New Composite Flooring System Based on Improved Profiled Steel Sheet Dry Board (PSSDB) System
191. ***W.H. Wan Badaruzaman, H. Awang, N. Nordin, A.B. Shaini***
193. 04:00-04:20 Alternative Waste Aggregates in Road Base Materials
H. Al Nageim, P. Visulios
194. 04:20-04:40 Contour Crafting: A New Automated Construction Technology and its Benefits to the Environment
Mansour Rahimi, Behrokh Khoshnevis, Mahdi Arhami
195. 04:40-05:00 Waste Rubber Aggregates for Use in Asphalts: A Laboratory Study
H. Al Nageim, A. Senouci
156. 05:00-05:20 Pavement Performance Models for the Ethiopian Pavement Management System
Ephrem Tadesse, Helge Mork

End of Day 1 Presentations

May 21, 2009 (Thursday)

09:30AM – 10:30AM Keynote Speech 2: Professor Ghassan Aouad

(Session Chair: Irtishad Ahmad, CITC-V Advisory Committee Chair)
(Marmara Suite)

10:30AM – 11:00AM Coffee Break (Foyer)

11:00AM – 12:40PM Paper Presentations (Parallel Sessions-4)

Session A4: Cost and Financial Management-III (Room: Marmara 1)

Session Chair: John-Paris Pantouvakis, National Technical University of Athens, Athens, Greece

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| Paper 14. | 11:00-11:20 | Structural Equation Model of Estimating Final Construction Cost of Road Tunnel
Kleopatra D. Petroutsatou, Sergios Lambropoulos |
| 21. | 11:20-11:40 | Detailed Estimating Practices of Construction Firms in Pakistan
Rizwan U. Farooqui, Farrukh Arif, Syed M. Ahmed, Sarosh H. Lodi |
| 16. | 11:40-12:00 | A Criteria Model for Budgeting and Assessing Industrial Sites Location in Developing Economy
Kareem Buliaminu |
| 17. | 12:00-12:20 | A Dynamic Model for Sequential Expansion in Building, Machinery and Manpower Based on Gradual Funding
Kareem Buliaminu |
| 18. | 12:20-12:40 | Investment Appraisal of a Small Hydro Power Plant: A Case Study for a Small Hydro Power Plant in Bosnia and Herzegovina
Tahir Celik, Faruk Ibisevic |

Session B4: Legal and Contractual Issues-I (Room: Marmara 2)

Session Chair: Khalid Siddiqi, Southern Polytechnic State University, USA

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| Paper 113. | 11:00-11:20 | Dispute Avoidance and Resolution in Construction Projects: On Paper or in the Minds of People?
Levent Irmak |
| 105. | 11:20-11:40 | Delay Analysis Techniques Comparison
Khalid S. Al-Gahtani, Satish M. Mohan |
| 106. | 11:40-12:00 | Comparison of Saudi Public Works Contract versus the UK Counterpart
Ibrahim Al-Hammad |
| 107. | 12:00-12:20 | Investigating the Causes of Delays in Occupancy Permit Issuance
S. Zeynep Doğan-Erdoğan, H. Murat Günaydın, Aysu Demirciefe |
| 108. | 12:20-12:40 | Contract Management; Integration for Best Effect
Roger van der Zanden |

**Session C4: Information Technology-III/Information Systems-III/Building Information Modeling-II
(Room: Marmara 3)**

Session Chair: A. Tanju Gultekin, Gazi University, Turkey

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| Paper 148. | 11:00-11:20 | A Comparison of Tabu Search, Simulated Annealing and Genetic Algorithms for Discrete Time-Cost-Quality Trade-Off Analysis
<i>Serdar Kale, M. Emre İlal</i> |
| 155. | 11:20-11:40 | Ontology Models of Window Performance Characteristics for Harmonized Conformity Assessment Process
<i>Ayse Nesen Surmeli, Jan-Willem van de Kuilen, Wolfgang Gard, Reza Beheshti</i> |
| 157. | 11:40-12:00 | Comparison of Fuzzy Logic, Artificial Neural Network and Multiple Regression Analysis Methods in the Determination of Selling Prices of House
<i>Hakan Kusan, Osman AYTEKIN, Ilker Ozdemir</i> |
| 166. | 12:00-12:20 | A Model for Increased Collaboration in Construction
<i>Barry Jones</i> |
| 167. | 12:20-12:40 | Lessons Learned From Generation of BIM for Construction Management: Case Study
<i>Asli Akcamete, Burcu Akinci, James H. Garrett, Jr.</i> |

Session D4: Engineering Design Issues and Solutions-III (Room: Golden Horn 1)

Session Chair: Anoop Sattineni, Auburn University, USA

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| Paper 183. | 11:00-11:20 | Mechanical Characterization for Mortar for Masonry
<i>Nuri Batista, M F Paulo Pereira, Jose B. Aguiar</i> |
| 185. | 11:20-11:40 | Technical and Economic Analysis for Optimum Condition of Aggregate Recycled from Unused Ready-Mixed Concrete
<i>Sansanee Supapa, Nathi Thepsing, Patcharaporn Yanpirat</i> |
| 186. | 11:40-12:00 | The Effects of Limestone Powder and Pulverized Fly Ash on Compressive Strength of Casting Concrete in Hollow Core Slab Manufacturing Process
<i>Patcharaporn Yanpirat, Sansanee Supapa, Chaiyarun Wuttivoradit</i> |
| 187. | 12:00-12:20 | Utilization of High Volume Fly Ash Cement Paste in Civil Engineering Construction Sites
<i>Ertug Aydin</i> |
| 188. | 12:20-12:40 | Development of Vacuum/ Pressure Bagging System for FPR Repair
<i>Danny Winters, Gray Mullins, Mike Stokes, Rajan Sen</i> |

12:40PM – 02:00PM Lunch (Nov'ist Restaurant)

02:00PM –03:20PM Paper Presentations (Parallel Sessions-5)

Session A5: Cost Management-IV/Decision Making and Risk Analysis-II (Room: Marmara 1)

Session Chair: James Garrett, Carnegie Mellon University, USA

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| Paper 19. | 02:00-02:20 | Exploring Estimator Behaviour in Pricing Road Projects
<i>Charles Afetornu, Francis Edum-Fotwe, Ronald McCaffer, Alex Twumasi-Boakye, Frank Desmond Kofi Fugar</i> |
| 20. | 02:20-02:40 | Investigating the Range of Estimating Accuracy in Road Projects
<i>Charles Afetornu, Francis Edum-Fotwe, Alex Twumasi-Boakye, Ronald McCaffer, Frank Desmond Kofi Fugar</i> |
| 15. | 02:40-03:00 | Implementing the Balanced Scorecard in the Greek Construction Companies Projects
<i>Odysseus G Manoliadis, Ioannis Tsolas</i> |
| 42. | 03:00-03:20 | Cost and Time Focused Risk Analysis in the Turkish Construction Industry
<i>Aynur Kazaz , Serdar Ulubeyli</i> |

Session B5: Safety and Quality Management-I (Room: Marmara 2)

Session Chair: Les Ruddock, Salford University, UK

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| Paper 91. | 02:00-02:20 | Modeling Three-Dimensional Space Requirements for Safe Operation of Heavy Construction Equipment
<i>Farnaz Sadeghpour, Jochen Teizer</i> |
| 99. | 02:20-02:40 | Quality Culture Auditing for Construction Contractors in Pakistan
<i>Muhammad Saqib, Rizwan U. Farooqui, Sarosh. H. Lodi, Sahibzada F.A. Rafeeqi</i> |
| 96. | 02:40-03:00 | Noise Exposure of Construction Workers
<i>Gulin Birlık</i> |
| 101. | 03:00-03:20 | Built Quality Evaluation Case for Hotel Buildings in Turkey
<i>A.Tanju Gültekin, A.Yağmur Topraklı</i> |

Session C5: Procurement Management-I (Room: Marmara 3)

Session Chair: Dean Kashiwagi, Arizona State University, USA

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| Paper 59. | 02:00-02:20 | Selection Criteria Used for the Choice of Procurement System for Major Highway Construction Projects
<i>Fani Antoniou, Glykeria Kalfakakou</i> |
| 60. | 02:20-02:40 | Procurement Selection Practices in Post Disaster Project Management: A Case Study in Banda Aceh, Indonesia
<i>Abu Hassan Abu Bakar, Omar Osman, Alfa Taras Bulba</i> |
| 61. | 02:40-03:00 | Cultural Diversity and Its Effect on Construction Project Team Effectiveness
<i>Mohammed Dulaimi, Amjad Hariz</i> |
| 62. | 03:00-03:20 | Evaluation of How Construction is to be Procured in the Next Ten Years in the 2010s
<i>Ellen Lau</i> |

Session D5: Sustainable Construction Techniques-I (Room: Golden Horn 1)

Session Chair: Esin Ergen, Istanbul Technical University, Turkey

- Paper 02:00-02:20 Australia's First 6-Star Green Education Building: Construction and Services Technologies
199. ***Jim Smith, Georger Earl***
201. 02:20-02:40 Construction and Demolition Waste Usage Possibilities
Dubravka Bjegovic, Nina Stürmer, Dunja Mikulic
206. 02:40-03:00 An Evaluation of the Priority Order in Applying the Sustainable Office Building Design-Focused on Ubiquitous Space
Jiho Park, Duk Chan Jang
205. 03:00-03:20 The Application of Recycling Material for the Sustainability of Slopes: A Case Study of Two Sites in Hong Kong
Johnny Y. N. Mok, Daniel T. P. Ho, Brian H.Y. Leung, Abid Nadeem

03:20PM – 03:40PM Coffee Break (Foyer)

03:40PM – 05:20PM Paper Presentations (Parallel Sessions-6)

Session A6: Decision Making and Risk Analysis-III (Room: Marmara 1)

Session Chair: Serdar Kale, Balikesir University, Turkey

- Paper 03:40-04:00 Investment into New Technology under Uncertainty Conditions
23. ***Anita Ceric***
24. 04:00-04:20 A Fuzzy Logic Approach for Contractor Selection
Mohamed El-Agroudy, Emad Elbeltage, Mohamed E. Abdul Razeq
30. 04:20-04:40 Strategic Group Analysis by Using Fuzzy Clustering
Cenk Budayan, Irem Dikmen, M. Talat Birgonul
31. 04:40-05:00 Solution of Unbalanced Transportation Problems Using Simplified Generalized Network Algorithm (SGNA)
Osman Aytekin, Hakan Kusan, Ilker Ozdemir
43. 05:00-05:20 Risk Management Maturity Models: A Review and Future Directions for Improvement
Begum Ongel, Ali Murat Tanyer, Irem Dikmen

Session B6: Project Planning and Control-III/Legal and Contractual Issues-II (Room: Marmara 2)

Session Chair: Semiha Kızıltas, Middle East Technical University, Turkey

- Paper 03:40-04:00 Cost and Time of Construction Projects in Malaysia
54. ***Intan Rohani Endut, Zayyana Shehu, Akintola Akintoye, Aini Jaafar***
55. 04:00-04:20 Application of a Heuristic Algorithm for Efficient Resource Scheduling: A Case Study
David Greenwood, Davood Fazel
47. 04:20-04:40 Advanced Line of Balance Method (ALoB) in Partly-Repetitive Model-Based Scheduling
Can Ersen Firat, David Arditi, Juhani Kuiras
57. 04:40-05:00 Unique Dashboard Needs of Construction Project Team Members
Guzide Atasoy, Burcu Akinci, Katherine Basta
112. 05:00-05:20 Claim Reduction Strategies in Condo Construction
Khalid Siddiqi, Christy L. Heath

Session C6: Safety and Quality Management-II/Procurement Management-II (Room: Marmara 3)

Session Chair: Farnaz Sadeghpour, Ryerson University, Canada

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| Paper 93. | 03:40-04:00 | Social Costs of Construction Accidents and Safety Investments in Hong Kong
<i>Abid Nadeem, S. L. Tang, H. K. Lee</i> |
| 103. | 04:00-04:20 | Investigating the Cost of Quality in Construction SMEs
<i>Paul Watson, Adam Marshall Lawton</i> |
| 100. | 04:20-04:40 | Quality Function Deployment Methodology for Evaluating Customer Satisfaction in Mass Housing Sector
<i>Yeliz Olcay</i> |
| 63. | 04:40-05:00 | Procurement Strategies Perception in the Oil and Gas Industry: Capturing Changing Values and Dealing with Multi Cultural Complexity
<i>Mohammad Fadhil Mohammad</i> |
| 90. | 05:00-05:20 | Policy, Practice, Education and Research Issues in Designing for Safety
<i>Rafiq M. Choudhry, Helen Lingard, Nick Blismas</i> |

Session D6: Facilities Management-I/Sustainable Construction Techniques-II (Room:Golden Horn 1)

Session Chairs: Jim Smith, Bond University, Australia and Rafiq M. Choudhry, National University of Science and Technology, Pakistan

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| Paper 127. | 03:40-04:00 | Correlation Analysis of Building Performance and Occupant's Satisfaction via Post Occupancy Evaluation for Malaysia's Public Buildings
<i>Natasha Khalil, Husrul Nizam Husin, Abdul Hadi Nawawi, Hamimah Adnan</i> |
| 128. | 04:00-04:20 | Maintenance Approaches of Historical Buildings in Malaysia
<i>Robiah Abdul Rashid, Ghafar Ahmad</i> |
| 130. | 04:20-04:40 | A Review of the Data Collection and Management Technologies for the Operational Stage of Facilities
<i>Ali Murat Tanyer</i> |
| 131. | 04:40-05:00 | Variability in the Application of Space Management Tools for Facilities Managers
<i>Darren Booy, Abbas Elmualim, Derek Clements-Croome, Karl Horner, Keith Perry</i> |
| 213. | 05:00-05:20 | Indoor Air Quality Optimization to Increase Worker Productivity in Office Buildings
<i>B. Gokhan Celik, Kevin R. Grosskopf, Charles J. Kibert</i> |

End of Day 2 Presentations

08:00PM – 11:30PM Gala Dinner (Kervansaray Night Club)

Buses will leave from the hotel front door at 7:00 PM

May 22, 2009 (Friday)

09:30 AM – 11:10PM Paper Presentations (Parallel Sessions-7)

Session A7: (Room: Marmara 1)

Topic: “How a Research based program was built in Botswana with minimal funding and resources.”

Presenter: **Dean Kashiwagi**, Director, Performance Based Studies Research Group (PBSRG), Arizona State University, Arizona, USA

Session Chairs: Syed M. Ahmed, Florida International University, USA and Torbica Zeljko, Drexel University, USA

Synopsis: Learn how you can build a research program that immediately impacts the industry and brings research funding at the same time. Professor Kashiwagi will cover how to design the research based education, how to get the industry to do research testing, how to get the research published, and how to use the research funding to increase the research effort. The model was designed around the effort at the University of Botswana, and will work in any developed or underdeveloped country. The research is based around the Information Measurement Theory which aligns the education, research, and researcher’s efforts.

Session B7: Decision Making and Risk Analysis-IV (Room: Marmara 2)

Session Chair: Burcu Akinci, Carnegie Mellon University, USA

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| Paper 32. | 09:30-09:50 | A Proposal for Architects’ Design Performance Assessment Using Objectives Matrix
<i>A. Yağmur Topraklı, A. Tanju Gültekin</i> |
| 33. | 09:50-10:10 | A Conceptual Framework to Assess Architectural Design Quality by Analytic Hierarchy Process (AHP) and Its Integration to Building Contracts
<i>Timuçin Harputlugil, A. Tanju Gültekin</i> |
| 34. | 10:10-10:30 | Home-Buyers’ Product Selecting Criteria vs. Satisfaction Rate in Northern Cyprus Construction Market
<i>Mehmedali Egemen</i> |
| 38. | 10:30-10:50 | Evaluation of Risk Perceptions in Construction
<i>Ellen Lau, Raymond Wong, Greg Tse</i> |
| 41. | 10:50-11:10 | Managing the Risk of Contractor Failure
<i>Zeynep Yagmuroglu, Murat Gunaydin, David Arditi</i> |

Session C7: Knowledge Management -I (Room: Marmara 3)

Session Chair: Lucio Soibelman, Carnegie Mellon University, USA

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| Paper 121. | 09:30-09:50 | Impacts of Cultural Differences on Knowledge Management Practices in Construction
<i>Serkan Kivrak, Andrew Ross, Gokhan Arslan</i> |
| 122. | 09:50-10:10 | Exploring the Use of Semantic Web Techniques for Representing Knowledge About Sustainable Building Technologies
<i>J.H.M. Tah, F.H. Abanda</i> |
| 123. | 10:10-10:30 | A New Generation of Demo-Projects for Sustainable Sector-Integrated Innovations
<i>Barbara Rubino</i> |
| 124. | 10:30-10:50 | Fuzzy Logic Model for Benchmarking Knowledge Management Performance of AEC Firms
<i>Serdar Kale, Erkan Karaman</i> |
| 126. | 10:50-11:10 | Examination of the Relationships Among Leadership Styles, Organizational Culture and Knowledge Management Practices
<i>Hai Nam Nguyen, Sherif Mohamed</i> |

Session D7: Sustainable Construction Techniques-III (Room: Golden Horn 1)

Session Chair: Rafael Sacks, Techion, Israel

- Paper 09:30-09:50 Causes and Minimization Techniques of Materials Waste in Nigerian Construction Process
207. *Olatunji Joseph Oladiran*
209. 09:50-10:10 A Review of International Green Building Certification Methods: A Roadmap for a
Certification System in Turkey
Duygu Erten, Kirk Henderson, Bilge Kobas
210. 10:10-10:30 Why Sustainable Building Design and Construction? : Why Now?
Muge Mukaddes Darwish, Mary Frances Agnello, Hendrika Buelinckx
211. 10:30-10:50 Clean, Green and Sustainable Building Elements: Masonry and Brick
Muge Mukaddes Darwish, Mary Frances Agnello
215. 10:50-11:10 A Review of Green Building Movement Timelines in Developed and Developing Countries
to Build an International Adoption Framework
Sinem Korkmaz, Duygu Erten, Matt Syal, Varun Potbhare

11:10PM – 11:30PM Coffee Break (Foyer)

11:30AM – 12:50PM Paper Presentations (Parallel Sessions-8)

Session A8: Project Management Issues-II (Room: Marmara 1)

Session Chair: Barry Jones, Cal Poly State University, USA

- Paper 11:30-11:50 Senior Housing in Finland - Case Tampere
68. *Tanja Tyvimaa*
72. 11:50-12:10 The Variables that Influence the Attributes of Malaysian Construction Clients During
Briefing Process
Rahasnan Abd Rashid, Norizan Ahmad, Ismail Rahmat
84. 12:10-12:30 Quantifying the Criteria for Performance Appraisal of Project Managers in Pakistani
Construction Industry
Rizwan U. Farooqui, Nida Azhar, Sarosh H. Lodi, Sahibzada F.A. Rafeeqi
76. 12:30-12:50 Factors Affecting Marketing Success for Construction Companies in the Housing Sector
Gokhan Arslan, Serkan Kivrak, Mevlut Tankisi

Session B8: Safety and Quality Management-III (Room: Marmara 2)

Session Chair: Torbica Zeljko, Drexel University, USA

- Paper 11:30-11:50 Socio-economic Influences on the Adoption of Total Quality Management in the Libyan
102. Construction Industry
Khaled Sherif, Andrew Fox
94. 11:50-12:10 An Assessment for Safety Management for Construction Plant and Machinery in Malaysia
Husrul Nizam Husin, Natasha Khalil, Hamimah Adnan, Abdul Hadi Nawawi
97. 12:10-12:30 Resource Allocation for Strategic Quality Management: An Analytic Network Process
(ANP) Model
Hisham Alidrisi, Sherif Mohamed
92. 12:30-12:50 Demolition Within Congested Urban Environment - Nature of Risk and System to Ensure
Safety During Work, the Hong Kong Cases
Raymond Wong Wai Man, Ellen H L Lau

**Session C8: Project Management Issues-III/ Education and Training-I/International Issues-I
(Room: Marmara 3)**

Session Chair: Beliz Ozorhon, University of Salford, UK

64. 11:30-11:50 Utility Model for Evaluation of Alternative Procurement Methods
Li-Chung Chao
120. 11:50-12:10 A Critical Review of Ethics Issues and Corrupt Practices in the Global Construction Industry
Mumtaz A. Usmen, Darney Mamman, Emrah Kazan, Kulvir Singh
- xxx 12:10-12:30 Robust Design of Global Project Networks
Kenny Wong, Hakan I. Unsal, John E. Taylor, Raymond Levitt
138. 12:30-12:50 Qualitative Research Methods in Project Management Research in the Built Environment
Esra Kurul

Session D8: Education and Training-II (Room: Golden Horn 1)

Session Chair: Joseph Tah, Oxford Brooks University, UK

- Paper 132. 11:30-11:50 e-learning Materials for Quantity Surveying Measurement
Geoff Hodgson, Michael Y. Mak, Willy Sher
135. 11:50-12:10 Training Needs in the Local Infrastructure Construction Industry Market in North Cyprus
Balkiz Oztemir
136. 12:10-12:30 Teaching Globalization Issues to Civil Engineering Students – The International Collaborative Construction Management Course
Lucio Soibelman, Burcu Akinci, Rafael Sacks, Irem Dikmen, M. Talat Birgonul, Carlos Formoso, Eduardo Isatto
140. 12:30-12:50 Captured Construction: A Digital Media Library of Building a Construction School
Michael F. Hein, Junshan Liu

12:50PM – 02:00PM Lunch (Nov'ist Restaurant)

02:00PM –04:00PM Paper Presentations (Parallel Sessions-9)

Session A9: Project Management Issues-IV (Room: Marmara 1)

Session Chair: Esra Kurul, Oxford Brooks University, UK

- Paper 78. 02:00-02:20 Evaluating Innovation Performance of Countries in the Construction Industry by Using Patent Data
Esin Ergen, Cemil Baspinar
79. 02:20-02:40 Visual Management – A General Overwiev
Algan Tezel, Lauri Koskela, Patricia Tzortzopoulos
80. 02:40-03:00 Managerial Competencies of Construction Managers
David Arditì, Gulsah Balci
81. 03:00-03:20 Measuring Construction Innovation
Beliz Ozorhon, Carl Abbott, Ghassan Aouad
82. 03:20-03:40 The Leader, The Led & The Mission: Their Impact On Project Leadership Performance
Sambo Zulu
75. 03:40-04:00 Relationship Between Partnering Process in Construction and Customer Satisfaction
Omur Uzaslan

Session B9: Project Delivery Systems-I/Legal and Contractual Issues-III (Room: Marmara 2)

Session Chair: Aynur Kazaz, Akdeniz University, Turkey

- Paper 02:00-02:20 Communication of Constructability: A Comparative Analysis between the Design-Bid-Build and Design-Build Delivery Methods
86. *Ahmed Fathi Waly*
87. 02:20-02:40 Adopting a New Housing Delivery System: The Case of Private Housing Developers in Malaysia
Nor'Aini Yusof, Mohd Wira Mohd Shafiei, Sofri Yahya, Ng Lee Fen
89. 02:40-03:00 Influence of Project Delivery Methods on Achieving High Performance Sustainable Buildings: Preliminary Results Based on a Pilot Study
Lipika Swarup, Sinem Korkmaz, Michael Horman, David Riley
109. 03:00-03:20 Contract Management Behavior and Practices of Turkish Contractors at International Contracts
M. Alper Yiğit, M.Talat Birgonul, Irem Dikmen
110. 03:20-03:40 Causes of Delay in Iran Construction Projects
Ehsan Asnaashari, Saeid Shahrabi Farahani, Ahmad Reza Hoseini, Andrew Knight, Alan Hurst
111. 03:40-04:00 Subcontractor Default Insurance (SDI): A Comparative Analysis with Surety Bonds – the Contractor's Perspective
Dennis C. Bausman

Session C9: International Issues-II (Room: Marmara 3)

Session Chair: Gokhan Arslan, Anadolu University, Turkey

- Paper 02:00-02:20 Is M&A Strategy Really Helpful for Global Contractors?
114. *Seokjin Choi, Seung H. Han*
115. 02:20-02:40 Comparison of International Technology Transfer in Construction Projects Between Thailand and India
Tanut Waroonkun
116. 02:40-03:00 Determinants of Glocal Success in International Construction
Zeynep Isik, M.Talat Birgonul, Irem Dikmen
117. 03:00-03:20 A Review of Growth for Construction Service Companies in Global Markets
Roger Flanagan, Carol A. Jewell, Caner Anac
118. 03:20-03:40 Construction Skills Shortages – Any Global Lessons Gleaned from UK Scarcity?
Pauline Corbett, Matthew D Carr
119. 03:40-04:00 Weathering the Storm: The Impact of the Global Economic Crisis on the Construction Sector
Les Ruddock, Steven Ruddock

**Session D9: Knowledge Management-II/Education and Training-III/Construction Technology-II
(Room: Golden Horn 1)**

Session Chair: Rifat Akbıyıklı, Sakarya University, Turkey

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|---------------|-------------|---|
| Paper
125. | 02:00-02:20 | Spiral of Knowledge, Network Theory and Communities of Practice in a Consulting Engineering Firm
<i>Abbas Elmualim, Simon Howard</i> |
| 141. | 02:20-02:40 | Recent Issues in Civil Engineering Education
<i>Y. Cengiz Toklu</i> |
| 189. | 02:40-03:00 | Effect of Kinematic Viscosity of Hydrocarbon Contaminants on Shear Strength and Compressibility of a Well Graded Sandy Soil
<i>Salah A. Taqieddin</i> |
| 197. | 03:00-03:20 | Proposal for Evaluation Management of Concrete Block Pavement (Interlock Pavement) with New Pavement Condition Index
<i>Shafik Jendia, Ibrahim ElAstal</i> |
| 182. | 03:20-03:40 | Self-Compacting Paste Systems Containing Secondary Raw Materials
<i>Syed Ali Rizwan, Thomas A. Bier</i> |

**04:00PM –04:30PM Conference Closing Reception
(Foyer)**

Action Research Workshop

May 19, 2009 (03:00PM – 06:00PM)

Room: Golden Horn 1

This workshop will introduce participants to an innovative research approach called Action Research (AR). AR aims at building and testing theory within the context of solving an immediate practical problem in a real setting.

Construction Management is by epistemology and axiology, a “proactive” field, in that each construction project is an intervention into what exists and thus creates new reality. Consequently, the field needs to employ “proactive” research approaches. There is a need to conduct applied or field research on real-life problems which are vital for the construction industry in addition to fundamental or basic research.

The workshop will be organized in two sessions. In the first session, participants will be introduced to the fundamentals and principles of AR. Concepts and the process of conducting AR will be illustrated with examples of research that has been carried out by the presenters. The second session will be devoted to application and use of AR. Participants will develop a proposal and a strategy to conduct an actual AR project in a context they are familiar with (e.g. in their own research situation).

The benefit for the participants will be awareness and familiarity of a research method that is particularly relevant for Construction Management field. Working through the application exercise, will help the participants to realize the possibilities of conducting a research project to address a problem that they may have been planning to examine.

Instructors

Maung K. Sein is Professor of Information Systems at The University of Agder, Norway. He has a Ph.D. and an MBA in Management Information Systems from Indiana University USA, an MBA in Finance from University of Dhaka Bangladesh, and a BSc. in Electrical Engineering from Bangladesh University of Engineering and Technology. He has previously served on the faculties of Florida International University, Indiana University and Georgia State University in USA and at The University of Bergen in Norway. He has been a visiting scholar at Claremont Graduate University USA and Helsinki School of Business and Economics Finland. His research interests have moved on from end-user training and cognitive issues in IS to his current focus on the role of Information and Communication Technology in national development (ICT4D), e-Government, and proactive research approaches. In addition to publishing widely in top journals in Information Systems and Human-Computer Interaction, he has also published in Construction Management and Economics. He has lectured widely around the world and has taught and conducted seminars and workshops on research methods in Europe, North America and Africa. He has conducted workshops on qualitative methods and action research in previous CITC conferences.

Salman Azhar is an Assistant Professor in the McWhorter School of Building Science at Auburn University, Alabama. He earned his doctoral degree in Construction Management from the Florida International University, Miami, Florida in 2005. Dr. Azhar has conducted research on Decision Support Systems, IT Applications in Construction and Organizational Design using Action Research technique. He has published over 50 papers in refereed journals, conference proceedings and edited books and has over 10 years of research, teaching and construction industry experience by working in USA, Hong Kong, Thailand and Pakistan.

Gala Dinner

May 21, 2009 (8:00 PM – 11:30 PM)

At the evening of May 21, 2009 we shall have our gala dinner at the famous **Kervansaray Night Club** where you can enjoy **authentic Turkish cuisine**, watching spectacular **Belly Dance** show, as well as traditional **Anatolian Folk Dances** and **Music**. We will be entertained by some of the city's finest dancers and musicians. For further information about the restaurant and the show, please visit the web page:

<http://www.kervansarayistanbul.com/english.htm>

Gala Dinner Cost: Free for Registered Participants and Paid Accompanied Persons

Additional Gala Dinner Ticket: \$100 per person (available at the conference registration desk)

Buses will leave from the hotel front door at 7:00 PM. If you would like to reach **Kervansaray Night Club** by yourself, the street address and phone numbers are:

Address: **Kervansaray Night Club**, Cumhuriyet Caddesi No: 30, Harbiye- Istanbul/ Turkey (Between Hilton Hotel and Lutfi Kirdar Convention & Exhibition Center)

Phone: (+90) 212-247 16 30
(+90) 212-247 16 31

Session Chairs

Session	Time	Session Chair
May 20, 2009		
A1	11:20AM – 12:40PM	Rajan Sen, University of South Florida, USA
B1	11:20AM – 12:40PM	David Greenwood, Northumbria University, UK
C1	11:20AM – 12:40PM	Anita Ceric, Univerisity of Zagreb, Croatia
D1	11:20AM – 12:40PM	Abid Nadeem and Johnny Mok, Hong Kong College of Technology, Hong Kong
A2	02:00PM – 03:20PM	Gul Polat, Istanbul Technical University, Turkey
B2	02:00PM – 03:20PM	Lincoln H. Forbes, Miami-Dade County Schools Office, USA
C2	02:00PM – 03:20PM	Emine Mine Thompson, Northumbria University, UK
D2	02:00PM – 03:20PM	Erdogan Sener, Indiana University-Purdue University Indianapolis, USA
A3	03:40PM – 05:20PM	Muge Mukaddes Darwish, Texas Tech University, USA
B3	03:40PM – 05:20PM	Vasantha Abeysekera, AUT University, New Zealand
C3	03:40PM – 05:20PM	Michael Hein, Auburn University, USA
D3	03:40PM – 05:20PM	Tahir Celik, Eastern Mediterranean University, North Cyprus
May 21, 2009		
A4	11:00AM – 12:40PM	John-Paris Pantouvakis, National Technical University of Athens, Greece
B4	11:00AM – 12:40PM	Khalid Siddiqi, Southern Polytechnic State University, USA
C4	11:00AM – 12:40PM	A. Tanju Gultekin, Gazi University, Turkey
D4	11:00AM – 12:40PM	Anoop Sattineni, Auburn University, USA
A5	02:00PM - 03:20PM	James Garrett, Carnegie Mellon University, USA
B5	02:00PM - 03:20PM	Les Ruddock, Salford University, UK
C5	02:00PM - 03:20PM	Dean Kashiwagi, Arizona State University, USA
D5	02:00PM - 03:20PM	Esin Ergen, Istanbul Technical University, Turkey
A6	03:40PM – 05:20PM	Serdar Kale, Balikesir University, Turkey
B6	03:40PM – 05:20PM	Semiha Kızıltas, Middle East Technical University, Turkey
C6	03:40PM – 05:20PM	Farnaz Sadeghpour, Ryerson University, Canada
D6	03:40PM – 05:20PM	Jim Smith, Bond University, Australia and Rafiq M. Choudhry, National University of Science and Technology, Pakistan

May 22, 2009

A7	09:30AM – 11:10AM	Syed M. Ahmed, Florida International University, USA and Torbica Zeljko, Drexel University, USA
B7	09:30AM – 11:10AM	Burcu Akinci, Carnegie Mellon University, USA
C7	09:30AM – 11:10AM	Lucio Soibelman, Carnegie Mellon University, USA
D7	09:30AM – 11:10AM	Rafael Sacks, Techion, Israel
A8	11:30AM – 12:50PM	Barry Jones, Cal Poly State University, USA
B8	11:30AM – 12:50PM	Torbica Zeljko, Drexel University, USA
C8	11:30AM – 12:50PM	Beliz Ozorhon, University of Salford, UK
D8	11:30AM – 12:50PM	Joseph Tah, Oxford Brooks University, UK
A9	02:00PM – 04:00 PM	Esra Kurul, Oxford Brooks University, UK
B9	02:00PM – 04:00 PM	Aynur Kazaz, Akdeniz University, Turkey
C9	02:00PM – 04:00 PM	Gokhan Arslan, Anadolu University, Turkey
D9	02:00PM – 04:00 PM	Rifat Akbıyıklı, Sakarya University, Turkey

Committees

Organizing Committee

- Syed M. Ahmed, Chair CITC-V, Florida International University, USA
- M. Talat Birgonul, Co-Chair CITC-V, Middle East Technical University, Turkey
- Salman Azhar, Technical Chair CITC-V, Auburn University, USA
- Irem Dikmen, Program Chair CITC-V, Middle East Technical University, Turkey

Advisory Committee

- Irtishad Ahmad, Advisory Committee Chair, Florida International University, USA
- Sherif Mohamed, Griffith University, Gold Coast, Australia
- Brain C. Moore, Georgia Southern University, Statesboro, Georgia, USA
- John-Paris Pantouvakis, National Technical University of Athens, Athens, Greece
- S. L. Tang, Hong Kong Polytechnic University, Hong Kong

International Scientific Committee

- Vasantha Abeysekera, AUT University, New Zealand
- Hojjat Adeli, Ohio State University, USA
- Hamimah Adnan, University Teknologi MARA, Malaysia
- Burcu Akinci, Carnegie Mellon University, USA
- Akintola Akintoye, University of Central Lancashire, UK
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- Anita Ceric, University of Zagreb, Croatia
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- Rafiq M. Choudhry, National University of Sciences and Technology, Pakistan
- Halime Demirkan, Bilkent University, Turkey
- Mohammed Dulaimi, BUID, UAE
- Francis Edum-Fotwe, Loughborough University, UK
- Dongping Fang, Tsinghua University, China
- Rizwan Farooqui, Florida International University, USA
- Jose Faria, Florida International University, USA
- Lincoln H. Forbes, Miami-Dade County Schools Office, USA
- Carlos Formoso, UFRGS, Brazil
- James Garrett, Carnegie Mellon University, USA
- Heyecan Giritli, Istanbul Technical University, Turkey
- Stuart Green, Reading University, UK
- David Greenwood, Northumbria University, UK
- Murat Gunduz, METU, Turkey
- Theodore C. Haupt, Cape Peninsula University of Technology, South Africa
- Michael Hein, Auburn University, USA
- Pekka Huovinen, Helsinki University of Technology, Finland

- Eduardo Isotto, UFRGS, Brazil
- Kalle Kahkonen, VTT, Finland
- Serdar Kale, Balikesir University, Turkey
- Alaattin Kanoglu, Istanbul Technical University, Turkey
- Dean Kashiwagi, Arizona State University, USA
- Aynur Kazaz, Akdeniz University, Turkey
- Abdul Samed Kazi, VTT, Finland
- Malik M.A. Khalfan, Salford University, UK
- Semiha Kiziltas, METU, Turkey
- Mohan Kumaraswamy, University of Hong Kong, Hong Kong
- Sarosh H. Lodi, NED University of Engineering and Technology, Pakistan
- Martin Loosemore, University of New South Wales, Australia
- Tayyab Maqsood, Royal Melbourne Institute of Technology, Australia
- Abdulrezak Mohamed, Eastern Mediterranean University, North Cyprus
- Johnny Mok, Hong Kong College of Technology, Hong Kong
- Ugur Mungen, Istanbul Technical University, Turkey
- Abid Nadeem, Hong Kong College of Technology, Hong Kong
- Yasemin Nielsen, METU, Turkey
- Stephen Ogunlana, Heriot-Watt University, UK
- Ilker Ozdemir, Osmangazi University, Turkey
- Beliz Ozorhon, Salford University, UK
- Kamalesh Panthi, Florida International University, USA
- Syed Ali Rizwan, National University of Science & Technology, Pakistan
- Les Ruddock, Salford University, UK
- Boong Yeol Ryoo, Florida International University, USA
- Rafael Sacks, Technion, Israel
- Begum Sertyesilisik, Yildiz Technical University, Turkey
- Khalid Siddiqi, Southern Polytechnic State University, USA
- Amarjit Singh, University of Hawaii, Honolulu, USA
- Miroslaw Skibniewski, University of Maryland, USA
- Lucio Soibelman, Carnegie Mellon University, USA
- Rifat Sonmez, METU, Turkey
- Joseph Tah, Oxford Brooks University, UK
- Ali Murat Tanyer, METU, Turkey
- John E. Taylor, Columbia University, USA
- Y. Cengiz Toklu, Yeditepe University, Turkey
- Yimin Zhu, Florida International University, USA

Conference Hotel

Novotel Istanbul

Kazlıcesme Mah. Kennedy Cad.

No: 56 Zeytinburnu

34025 Istanbul

Turkey

Tel (+90)212/4143600

Fax (+90)212/4143636

E-mail H5997-RE@accor.com

Map



Directions

From the airport, take a taxi and follow the coastline east towards the city centre. From the city centre (Taksim), take the bus No.E51 or a shared taxi to Yesilkoy in the direction of the airport, you will pass right in front of the hotel, or, **simply take a taxi directly to the hotel.**

Meeting Rooms for Conference Participants

Two meeting rooms (Bosphorous 1 and 2) have been reserved for CITC-V conference. The participants can use these rooms for presentation preparation, meetings or for other purposes. Internet connection will be available in both rooms. Participants need to bring their own notebook computers to avail internet facility.

Important Facts about Turkey





Local Time: GMT+2 hours (Summer)

Electricity: 220 volts AC

Road Signs: Turkish road signs conform to the International Protocol on Road Signs. Archeological and Historical sites are indicated by brown signs.

Traffic Circulation: Traffic circulates on the right and the Turkish Highway code is similar to that of other European countries. There is a 50 km/hr speed limit on urban centers and 90 km/hr limit outside urban areas. There is no need to obtain an international license to drive in Turkey for short periods. Your local drives license is sufficient.

Weather Forecast During Conference (source: www.weather.com)

17	18	19	20	21	22	23
					AVERAGES	
Hi 79°F Lo 59°F	Hi 73°F Lo 57°F	Hi 70°F Lo 57°F	Hi 69°F Lo 57°F	Hi 69°F Lo 56°F	Hi 72°F Lo 55°F	
Precip 0 %	Precip 10 %	Precip 30 %	Precip 0 %	Precip 0 %	RECORDS	
Length of Day 14 hrs 32 mins	Length of Day 14 hrs 34 mins	Length of Day 14 hrs 36 mins	Length of Day 14 hrs 38 mins	Length of Day 14 hrs 40 mins	Hi - Lo -	

Currency: Turkish Lira

1 Euro = 2.10 TRL

1 US \$ = 1.55 TRL

Important Service Telephone Numbers

Traffic Police (Trafik Polisi) 154

Polis (Police) 155

Gendarmerie (Jandarma) 156

Fire (Itfaiye) 110

PTT Information 161

Emergency 112

International Operator 118

Municipal Police (Zabita) 153