

Construction Research Congress 2005
Program [IDT 3/6/05]

| | Room 1 | Room 2 | Room 3 | Room 4 |
|---------------------------|---|---|--|--|
| Session | Session | Session | Session | Session |
| Tue 4/5/05 8:00-9:10 | Lean I - Howell [S] Lean Construction Job Shops (Howell) 7590-7677-7681-7445 [Apr-05-05 8:00 AM-9:10 AM] [A] 7590 -- SLAM - a case study in applying lean to job shops [A] 7677 -- Value stream mapping for make-to-order products in a job shop environment. [A] 7681 -- Analysis of Variability in Precasting and Installation of Pile Foundations [A] 7445 -- Fabrication lead time and demand variability: an empirical study | Education and Workforce - Toole [S] Educating Tomorrow's Construction Leaders (Chinowsky) 7425-7693-8927-7227 [Apr-05-05 8:00 AM-9:10 AM] [A] 7425 -- The Integrator Model for the Construction Professional of 2020 [A] 7693 -- What is the Background of Future Construction Leaders in Mexico? [A] 8927 -- Leadership and Goal-Setting in Construction Education [A] 7227 -- Aspects of Learning and Knowledge in Construction Projects | Contracts and Organizations - Tommelein [S] Industry Organization and Participant Roles (Riley) 7827-7688-7534-7700 [Apr-05-05 8:00 AM-9:10 AM] [A] 7827 -- The effects of the informal sector on construction [A] 7688 -- Source of Construction Industry Instability and Performance Problems [A] 7534 -- High Performance Building Design Process Model [A] 7700 -- Design Management in Design and Build Projects: the new role of the Contractor | IT I - Kamat and Caldas [S] Data Acquisition with Sensor Technologies (Liang Liu) 7740-7641-7682-7623 [Apr-05-05 8:00 AM-9:10 AM] [A] 7740 -- Experiments in Real-time Spatial Data Acquisition for Obstacle Detection [A] 7641 -- Locating materials on construction site using proximity techniques [A] 7682 -- Technology and Process Assessment of Using Lidar and Embedded Sensing for Construction Quality Control [A] 7623 -- Integration of Construction Field Data and Geotechnical Analyses |
| Tue 4/5/05 9:35-10:45 | Lean II [S] Lean Supply and Project Delivery (Ballard) 7608-7667-7551-9098 [Apr-05-05 9:35 AM-10:45 AM] [A] 7608 -- Restructuring the Rebar Supply System [A] 7667 -- Delivering Sustainability: Lean Principles for Green Projects [A] 7551 -- Building Performance Engineering during Construction [A] 9098 -- Accident Prevention Strategies: Causation Model and Research Directions | Education and Workforce [S] Innovative Construction Education (Rojas) 7576-7606-7459 [Apr-05-05 9:35 AM-10:45 AM] [A] 7576 -- Interprofessional Issues in Construction Education [A] 7606 -- Lessons Learned from a Design Course Utilizing Object-Based Learning Method [A] 7459 -- Understanding Cognitive and Meta-Cognitive Processes in Construction Management: The System Dynamics Perspective | Contracts and Organizations [S] Knowledge Management (Molenaar) 7426-7548-7511-7642 [Apr-05-05 9:35 AM-10:45 AM] [A] 7426 -- Learning Organizations in Construction [A] 7548 -- Applying Context to Systems Integration in AEC [A] 7511 -- Enhancing Knowledge & Experience Exchange through Construction Map-based Knowledge Management System [A] 7642 -- Company-wide Project Data Integration for a Construction Organization | IT II [S] Knowledge Representation (Russ Walters) 7477-7632-7674-7470 [Apr-05-05 9:35 AM-10:45 AM] [A] 7477 -- Hierarchical Clustering for Interpretation of Spatial Configuration [A] 7632 -- A Conceptual Framework for Mapping Data Representation in the AEC Domain [A] 7674 -- Application of Tolerance Mapping in AEC systems [A] 7470 -- A Usability Study of an Object-Oriented Design and Specification System for Transportation Projects |
| Tue 4/5/05 11:05-12:15 | Lean III [S] Project, Production, and Change Management (Pena-Mora) 9158-7698-7525-7650 [Apr-05-05 11:05 AM-12:15 PM] [A] 9158 -- Dynamic Error and Change Management in Concurrent Design and Construction [A] 7698 -- Key Constraint Analysis: Achieve Lean Processes With The Application Of TOC [A] 7525 -- Automatic Construction Process of Prefabricated Buildings on Geometric Reasoning [A] 7650 -- Model to Facilitate Optimization of the Concrete Supply Process | Education and Workforce [S] Managing Construction Professionals (Toole) 7657-7458-7697-7411 [Apr-05-05 11:05 AM-12:15 PM] [A] 7657 -- Attitudes in Construction Safety [A] 7458 -- Exploring Mental Models of Construction Managers [A] 7697 -- Cross-cultural Virtual Design Teams: Cultural Influences of Team Performance in Global Projects [A] 7411 -- Understanding and Mitigating Challenges on Global Projects: The Role of the Freelance Expatriate | Contracts and Organizations [S] Contracting Alternatives (Gibson) 7589-7419-7692 [Apr-05-05 11:05 AM-12:15 PM] [A] 7589 -- Contracts: A Holistic Perspective [A] 7419 -- Dispute Resolution Transactional Cost Quantification: What Does Resolving a Construction Dispute Really Cost? [A] 7692 -- Statistical Comparison of Performance Based Procurement and Price Based Procurement | IT III [S] Knowledge Management (Alain Zarli) 8931-7663-7594 [Apr-05-05 11:05 AM-12:15 PM] [A] 8931 -- Development of Knowledge Document Management System (KDMS) for Sharing Construction Technical Documents [A] 7663 -- Canadian Construction Claim Tracker: An Integrated Repository for Canadian Case-law Construction Claims [A] 7594 -- Towards a Framework for Managing Standards-based Semantic e-Resources in the European Construction Industry |
| Tue 4/5/05 | [S] Lean Academic Forum (Greg Howell) [Apr-05-05 12:15 PM-5:00 PM] Dinner on the Bahia Belle Boat | | | |

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| Wed 4/6/05 | Housing - Walsh | SCM -O'Brien | Infra I - O'Connor | IT IV |
| 8:00-9:10 | [S] Housing (Ken Walsh) 7675-7628-7778-7585-7533 [Apr-06-05 8:00 AM-9:10 AM] [A] 7675 -- Technical Preconstruction Service Process Model for the Private Real Estate Development Industry [A] 7628 -- A Dynamic Boolean Model of Roll-over Financing for Residential Real Estate Development in China [A] 7778 -- Residential Construction and the Influence of Inspections on Cycle Time [A] 7585 -- Production Planning Process in Residential Construction Using Lean Construction and Six Sigma Principles [A] 7533 -- National Housing Research Agenda for Construction Management and Production | [S] Supply Chain Management (Bill O'Brien) 7410-7478-7607-7680 [Apr-06-05 8:00 AM-9:10 AM] [A] 7410 -- MANS3C: An Agent-based Multi-attribute Negotiation Framework for Construction Supply Chain Coordination [A] 7478 -- Legal Risk Analysis, Modeling, and Programming for E-Commerce in Construction [A] 7410 -- A taxonomy for international construction market entry mode selection [A] 7680 -- Planning to Get Work: An Evaluation of Market Forecasting Techniques for use by Large Design and Construction Firms | [S] Infrastructure Project Delivery Systems (ElRayes) 7554-7537-7547 [Apr-06-05 8:00 AM-9:10 AM] [A] 7554 -- Use of Design-Build on Mass Transit Rail Projects [A] 7537 -- Delivering Highway Projects through Design-Build: Analysis of the Comprehensive Development Agreement (CDA) Procurement Process in Texas [A] 7547 -- Risk Management on Build-Operate-Transfer Projects | [S] Computer-Aided Design (Saeed Karshenas) 7473-7527-7452 [Apr-06-05 8:00 AM-9:10 AM] [A] 7473 -- Automated Construction Planning for Multi-Story Buildings [A] 7527 -- Case Study of Constructability Reasoning in MEP Coordination [A] 7452 -- Cost Estimating in the Age of 3-D CAD Software and Object Databases |
| Wed 4/6/05 | Sustainability I - Horvath and Matthews | Productivity and Methods I - ElRayes | Infra II | IT V |
| 9:35-10:45 | [S] Sustainability in Construction of Buildings and Roads (Arpad Horvath) 7501-7762-7614-7409-7379 [Apr-06-05 9:35 AM-10:45 AM] [A] 7501 -- Life Cycle Assessment of Residential Buildings [A] 7762 -- Decision Support Tool for Environmental Analysis of Commercial Building Structures [A] 7614 -- Economic and Environmental Implications of Construction Energy Use and Generation under new EPA Emission Standards [A] 7409 -- Sustainable Roadway Construction: Energy Consumption and Material Waste Generation of Roadways [A] 7379 -- Modified Concrete By Using a Waste Material as a Coarse Aggregate | [S] Productivity and Methods I (ElRayes) 7599-7475-7775-7612-7659 [Apr-06-05 9:35 AM-10:45 AM] [A] 7599 -- Prediction of Productivity for Microtunneling Projects in Bidding Phase [A] 7475 -- Predicting the Production Rates of Foundation Construction using Factor and Regression Analysis [A] 7775 -- Economic Assessment of Site Exploration Programs Using Stochastic Dynamic Programming [A] 7612 -- Quantifying the Impact of Schedule Compression on Construction Labor Productivity [A] 7659 -- Shift Work Impact on Construction Labor Productivity | [S] Infrastructure Project Cost Management (E. B. Lee) 7467-7600-7672 [Apr-06-05 9:35 AM-10:45 AM] [A] 7467 -- Preliminary Cost Estimates Using Probabilistic Simulation for Highway Bridge Replacement Projects [A] 7600 -- Design Cost Analysis of Transportation Projects [A] 7672 -- Construction Project Cost Performance Prediction Based on Project Bid Characteristics | [S] Virtual and Augmented Reality (Phillip Dunston) 7661-7601-7656 [Apr-06-05 9:35 AM-10:45 AM] [A] 7661 -- Heavy Equipment Operator Training via Virtual Modeling Technologies [A] 7601 -- Rapid Post-Disaster Evaluation of Building Damage Using Augmented Situational Visualization [A] 7656 -- Specification for Mapping Mixed Reality Visualization Technology to AEC Tasks |
| Wed 4/6/05 | Sustainability II | Productivity and Methods II | Infra III | IT VI |
| 11:05-12:15 | [S] Sustainability in Life-cycle Management (H. Scott Matthews) 7526-7582-7613-7665-7653 [Apr-06-05 11:05 AM-12:15 PM] [A] 7526 -- Lean and Green: The Role of Design-Build Mechanical Competencies in the Design and Construction of Green Buildings [A] 7582 -- A Prototype E-Society Portal: Using A Semantic Model To Represent Sustainability Aspects Of Highway Projects To Local Communities [A] 7613 -- The Continuous Value Enhancement Process to Achieve Sustainable Project Objectives [A] 7665 -- Life Cycle Cost Analysis of Bridges and Tunnels [A] 7653 -- Evaluating Design-Build Operate & Maintain (DBOM) Delivery as a Tool for Sustainability | [S] Productivity and Methods II (ElRayes) 7382-7433-9075-7584-8934 [Apr-06-05 11:05 AM-12:15 PM] [A] 7382 -- Analysis of Focus Group Data Regarding Construction Craftworkers' Perspective of the Factors Affecting their Productivity [A] 7433 -- Application of DEA-based Malmquist productivity index measure to the construction industry in China [A] 9075 -- Effect of Spatial Variables on Bricklaying Productivity [A] 7584 -- Fast and Easy Concrete Construction Using Innovative Steel Reinforcement [A] 8934 -- Building the Great Pyramid in About 385 Days: A Case Study in Energy Management | [S] Infrastructure Project Scheduling and Optimization (Ellis) 7645-7385-7448 [Apr-06-05 11:05 AM-12:15 PM] [A] 7645 -- Priority Scheduling of Urban Rehabilitation Streets to Minimize Congestion, Delays, and Accidents [A] 7385 -- Use of Conceptual Road User Costs for a Rapid Roadway Construction Decision Making System [A] 7448 -- Accelerated Pavement Rehabilitation on Urban Highways: Innovative Approach in California | [S] IT in Education (John Messner) 7514-7604-7370 [Apr-06-05 11:05 AM-12:15 PM] [A] 7514 -- Interactive multimedia scheduling book learning anytime anywhere [A] 7604 -- An Interactive Visualization Environment for Construction Engineering Education [A] 7370 -- Comparison of manual and user guided methodologies for the classification and retrieval of construction site images |
| Wed 4/6 PM | [S] NSF-Career Proposal Workshop (Horvath, Pena-Mora, Soibelman) [Apr-06-05 12:15 PM-5:00 PM] | | | |

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| Thu 4/7 8:00-9:10 | CAR I - Navon [S] Performance Control (Phillip Dunston) 7671-8929-7695-7648 [Apr-07-05 8:00 AM-9:10 AM] [A] 7671 -- An Automated Barcode System for Tracking and Control of Engineering Deliverables [A] 8929 -- Automated Materials Management and Control Model [A] 7695 -- Data Collection System for Labor-Intensive Projects [A] 7648 -- State-of-the-Art Review of Construction Performance Models and Factors | Project and Risk Management I - Garvin [S] Project Risk Quantification and Analysis (Ahmed Abdel Aziz) 7436-7519-7541-7593 [Apr-07-05 8:00 AM-9:10 AM] [A] 7436 -- A Risk Threshold Calculation Methodology for Construction Projects Applying the Value at Risk Concept [A] 7519 -- Modeling cost escalation as a risk factor in construction projects [A] 7541 -- Assessment of a Four Moments and Pearson Distribution Approach for Risk Analysis in Construction Estimates and Economics [A] 7593 -- Attitudes of Contractors and Employers towards Transfer of Time-Related Risks in Construction Contracts | Infra IV [S] Infrastructure Project Strategies (Goodrum) 7464-7516-7588 [Apr-07-05 8:00 AM-9:10 AM] [A] 7464 -- Real Options Analysis: Can It Improve Infrastructure Development Decisions? [A] 7516 -- Multi-Objective Optimization for the Construction of Large-scale Infrastructure Systems [A] 7588 -- Developing Best Practices for Avoiding Utility Relocation Delays | IT VII [S] Enterprise-level IT (Jonathan Shi) 7702-7655-7615 [Apr-07-05 8:00 AM-9:10 AM] [A] 7702 -- Construction Firm Performance and IT Utilization [A] 7655 -- Use of IT in Managing Environmental Risks in Construction Projects [A] 7615 -- A Construction Business Automation System (CBAS) |
| Thu 4/7 9:35-10:45 | CAR II [S] Scheduling and Control (Ed Jaselskis) 7413-7560-7515 [Apr-07-05 9:35 AM-10:45 AM] [A] 7679 -- The Need for Prompt Schedule Update by Utilizing Reality Capture Technologies: A Case Study [A] 7413 -- Realtime 4D CAD + RFID for Project Progress Management [A] 7560 -- Integrated Cost and Schedule Control: Variables for Theory and Implementation [A] 7515 -- Productivity Evaluation of the Conventional and the GPS-Based Earthmoving System Based on Construction Simulation | Project and Risk Management II [S] Project Management Decisions and Methods (Michael Garvin) 7451-7591-7539-7691 [Apr-07-05 9:35 AM-10:45 AM] [A] 7451 -- Is a Small Project Really Different? [A] 7591 -- Defining Megaprojects: Learning from Construction at the Edge of Experience [A] 7539 -- evaluating the Consequences of Overlapping Dependent Activities [A] 7691 -- Emerging Methods for Defining and Managing Dynamic Project Requirements | Infra V [S] Simulation Applications for Infrastructure Projects (OConnor) 7403-7359-7684 [Apr-07-05 9:35 AM-10:45 AM] [A] 7403 -- RoadSim: Simulation and Visualisation in Road Construction [A] 7359 -- Simulation Tools for the Economic Evaluation of Base Construction [A] 7684 -- A Study of Simulation-Based Contract Incentives and Disincentives Usage | IT VIII [S] Modeling and Optimization (Ralph Ellis) 7471-7552-7491-7616 [Apr-07-05 9:35 AM-10:45 AM] [A] 7471 -- Layout Planning of Construction Sites Considering Multiple Objectives: A Goal-Programming Approach [A] 7552 -- Situation-based Modeling for Construction Productivity [A] 7491 -- Development of a Resource Scheduling Model using Optimization [A] 7616 -- Comparative Study of Discrete-Event Simulation and System Dynamics for Construction Process Planning |
| Thu 4/7 11:05-12:15 | CAR III [S] Robotics (Ronie Navon) 7435-7664-9080-8454 [Apr-07-05 11:05 AM-12:15 PM] [A] 7435 -- Instrumenting an Asphalt Vibratory Compactor for Automation of Roadway Compaction [A] 7664 -- Fully Autonomous Robot for Paving Operations [A] 9080 -- Climbing Robots with Adaptive Grippers for Construction [A] 8454 -- Current Research and Development and Approach to Future Automated Construction in Japan | Project and Risk Management III [S] Productivity & Predictive and Analytical Techniques (Tarek Hegazy) 7622-7362-7609-7621-7662 [Apr-07-05 11:05 AM-12:15 PM] [A] 7622 -- Enhancing Productivity in the AEC Industry through Application of Rights Management [A] 7362 -- Predicting Project Schedule and Cost Elements' Variation in EPC Projects n Alberta [A] 7609 -- Overmanning Impact on Construction Labor Productivity [A] 7621 -- Effect of Pre-Construction Planning on Project Outcomes [A] 7662 -- Apportioning Concurrent Delays and Accelerations Using Daily Windows | Infra VI [S] Infrastructure VI (OConnor) 7507-7383-7563 [Apr-07-05 11:05 AM-12:15 PM] [A] 7507 -- Identifying Factors for Statistical Models to Measure Highway Project Disruptions [A] 7383 -- Building Underground: Special Techniques for a Storage Facility [A] 7563 -- Testing RAP Materials for Overlay Design Standards | IT IX [S] Neural Networks and Fuzzy Logic (Simaan Abourizk) 7603-7523-7414-7581 [Apr-07-05 11:05 AM-12:15 PM] [A] 7603 -- A Framework for Integrating Fuzzy Expert Systems and Discrete Event Simulation [A] 7523 -- Selecting Pile Construction Methods Using Fuzzy Approach [A] 7414 -- Fuzzy Logic Approach to Forecast Project Duration in Construction Projects [A] 7581 -- Neural-Risk Assessment System for Construction Projects |
| TOTAL | [S] Poster Session Construction Research Council [Apr-07-05 12:15 PM-1:15 PM] [S] Business Meeting of Construction Research Council [Apr-07-05 1:15 PM-3:00 PM] | | | |