

WEDNESDAY 4 JUNE 2025

Hall A

9:30 AM - 10:00 AM: **Opening**

10:00 AM - 11:00 AM: **Plenary**

Session 1 ID 119, 128, 174

Session Chair: Vicente Gonzalez

Learning From the Best: Lessons to Construction From High-performing Teams Across Sectors - Joonas

Lehtovaara, Antti Peltokorpi and Olli

Seppänen

Where Is the Evidence of Performance Improvement in the Lean Construction Literature? -

Ashan Senel Asmone, Aritra Pal,

Danny Murguia, Asitha Rathnayake

and Campbell Middleton

Lean Construction for the Sake of

What? - Randi M. Christensen, Paz

Arroyo, Annett Schöttle and Glenn

Ballard

11:00 AM - 11:30 AM: *Coffee Break*

11:30 AM - 12:15 PM: **Supply Chain Management** ID 214, 158, 130

Session Chair: Emmanuel Daniel

Towards a Supply Chain Integration

Theory in Offsite Construction:

Insights From Industry Practices -

Bochen Zhang, Guillermo Prado,

Leonardo Rischmoller and Martin

Fischer

Simulating JIT Implementation in Prefabricated Construction: a

Digital Framework for Supply Chain

Optimization - Ali Bidhendi, Rodrigo

F. Herrera and Mani Poshdar

Quality Assurance of Prefabricated

Concrete Elements - Oskar Jørgensen,

Ola Lædre and Jardar Lohne

Hall B

11:30 AM - 12:15 PM: **Digital**

Support for Lean Construction ID

11:30 AM - 12:15 PM: **Digital**

Session Chair: Fernanda Leite

Continous Improvement of the Digital Last Planner System

Whiteboard - Ergo Pikas, Rasmus

Jaagant and Lauri Koskela

Harmonizing Construction Flow: Integrating Takt Planning,

Workspace Management, and

Lookahead Strategies - Eyob T.

Mengiste and Borja Garcia de Soto

Hall C

11:30 AM - 12:15 PM: **People,**

Culture and Change ID 105, 251,

11:30 AM - 12:15 PM: **People,**

Session Chair: Sol Skinnarland

Team Health: a Pulse Check and

Prescription for the Collective

Learning Tool - Anthony Muñoz and

John Cleary

Culture of Quality - Sulyn Gomez

Villanueva, Mauricio Rivera and

Mauricio Neyra

Lean Construction Barriers From

the Organizational Culture Lens -

Rubén Romo, Francisco Orozco,

Francisco Moreno, Caroll Francesconi,

Reinaldo Valdebenito and Eric Forcael

12:15 PM - 13:00 PM: Modular and Off-Site ID 100, 199, 225	12:15 PM - 13:00 PM: Lean Theory ID 152, 188, 299	12:15 PM - 13:00 PM: People, Culture and Change ID 167, 179,
Session Chair: Ivanka Iordanova Impacts of Prefabrication on Construction Workers' Wellbeing: a Case Study - Vishal Sharma, Don Mah, Neetu Sharma, Mohamed Al-Hussein, Ahmed Bouferguene and Applying Lean Standard Operating Procedure to Panelized Prefabrication in the Factory - Leyi Zhou and Xinming Li	Session Chair: Ergo Pikas Lean Principles for Determining Generative Design Benefits - Diego Rojas Marinkelle, Nelly P. Garcia-Lopez and Santiago Lara Paradoxes in Integrated Project Delivery - Una Obiose Kriston Nwajei, Trond Bølviken and Magnus Mikael Hellström	Session Chair: Sol Skinnarland Lean Construction in Germany – Empirical Findings on the Current State of Practice - (Paul) Christian John, Katharina Niederprüm, Eliane Maier and Shervin Haghsheno Evaluating the Perceptions of UK Construction Professionals on the Adoption and Implementation of Lean Construction - Imram Phiri and Emmanuel Itodo Daniel Lean Construction Adoption in Indonesia and Australia: Based on Toe Framework - Muhamad Abduh and Gao Shang
Comparative Analysis of Construction Waste: Robotic Vs. Manual Offsite Assembly - Ali Hadi, Franco Cheung and Solomon Adjei	From Theory to Practice: Applying Time Span of Discretion in Last Planner System® and Takt Production to Navigate Work Complexity - Christopher Görsch, Eelon Lappalainen, Tobias Onshuus Malvik, Joonas Lehtovaara and Jaakko Riekk	
13:00 PM - 14:00 PM: <i>Lunch Break</i>	13:00 PM - 14:00 PM: <i>Lunch Break</i>	13:00 PM - 14:00 PM: <i>Lunch Break</i>
14:00 PM - 15:00 PM: Contract and Cost Management ID 240, 143, 111	14:00 PM - 15:00 PM: Health Safety and Quality ID 125, 200, 228, 252	14:00 PM - 15:00 PM: Learning and Teaching Lean ID 156, 170, 121, 120
Session Chair: Thais Alves Impact of Project Delivery System Selection on Value Generation - Ramzi Chahuán, Harrison Mesa, Omar Zegarra, Beda Barkokebas and Luis Fernando Alarcón	Session Chair: Jochen Teizer Construction Workers' Safety Perceptions and Job Satisfaction: a Comparative Analysis of Denmark and Peru - Edson Zanabria, Danny Murguia and Cristina T. Pérez	Session Chair: Ming Shan Ng Simulation to Bridge the Gap Between Visual Management Theory and on-Site Applications - Srujan Pramod Nawar, Zofia Kristina Rybkowski, Ganesh Devkar and Hameedullah Ehsas
Exploring IGLC Literature on Subcontracting - Gregory F. Saragih, Rafael V. Coelho, Richardus N. Kasih, Wataru Kon and Iris D. Tommelein	Worker Well-being, Suicide, and Lean Construction – Unravelling the Global Silent Killer - Matthew S. Araki and James P. Smith	Dissemination of Target Value Design Principles Through a Bridge Construction Online Simulation: Overview and Case Study - Manav Shah, Doobari Bharadwaj, Hameedullah Ehsas, Shobha Ramalingam and Zofia K. Rybkowski
Enhancing Cost Reliability in Construction: the Synergistic Impact of BIM and Lean Principles - León William, Guevara Jose and García-López Nelly	Good Safety, Health, and Quality Performances in Construction Industry: MRT Jakarta Phase 2 CP203 Through Best 5S Practices - Andung Damar Sasongko, Mardiansyah, Rizky Agung Saputra, Aliset Sebayang, Rias Nur Wulandari, Amy R. Widyastuti and Roberto Prans	Developing and Testing Muri Puzzle Game - Jose Torres, Suryeon Kim, David Jeong and Zofia Rybkowski
	Devising Visual Systems for Quality Management in Construction - Mauricio Neyra, Sulyn Gomez, Carlos T. Formoso and Kevin Ronceros	Development of a Serious Game in Construction Logistics Considering Digital and Lean Tools - Philipp Zielke, Daniel Weber, Franz-Ferdinand Gloser and Svenja Lauble
15:00 PM - 15:30 PM: <i>Coffee Break</i>	15:00 PM - 15:30 PM: <i>Coffee Break</i>	15:00 PM - 15:30 PM: <i>Coffee Break</i>

<p>15:30 PM - 16:15 PM: Production Planning and Control ID 107, 235, 110</p>	<p>15:30 PM - 16:15 PM: Supply Chain Management ID 102, 198, 204</p>	<p>15:30 PM - 16:15 PM: Learning and Teaching Lean ID 201, 194, 186</p>
<p>Session Chair: Farook Hamzeh Building the Capabilities for Takt Production Performance Measurement - Jaakko Riekkii, Joonas Lehtovaara, Olli Seppänen and Antti Peltokorpi</p>	<p>Session Chair: Emmanuel Daniel Leveraging Multi-agent System Powered by Large Language Model to Improve Transparency and Reliability in Automated Supply Chain Coordination - Xianxiang Zhao, Wenyi Kuang and Yong-Woo</p>	<p>Session Chair: Zofia Rybkowski Bridging Theory and Practice: Evaluating Lean Construction with Lego Simulations - Abdhy Gazali, Rina Asri Aisyah, Yusuf Maharani, Prama Putra and Alfandi Ziqri</p>
<p>Zonal Delivery Planning in the Construction of Infrastructure Projects: a Case Study - Ayman Naser</p>	<p>Leveraging the Supplier's Expertise Through an Innovative Organizational Structure - Aishwarya Fadnavis and Yong-Woo</p>	<p>Perceptions of Lean Concepts From Japan: Using an Interactive Game to Teach Lean Terminology - Ming Shan Ng and Qian Chen</p>
<p>Takt Control: Core Concepts and Preliminary Propositions - Carlos T. Formoso, Iris D. Tommelein, Karina B. Barth and Rafael V. Coelho</p>	<p>Integrating Construction 4.0 Technologies to Strengthen Post-disaster Construction Supply Chain - Tran Duong Nguyen, Qinghao Zeng and Pardis Pishdad</p>	<p>Collaborative Online International Learning: a Catalyst for Advancing Lean Construction Education - Ehsan Asnaashari and Amrit Sagoo</p>
<p>16:15 PM - 17:00 PM: Production Planning and Control ID 246, 254, 133</p>	<p>16:15 PM - 17:00 PM: Lean and Green ID 173, 135, 151</p>	<p>16:15 PM - 17:00 PM: Learning and Teaching Lean ID 281, 131, 261</p>
<p>Session Chair: Tatiana Amaral Implementation of Progress Monitoring Dashboard Based on Last Planner System on Pavement Work: a Case Study of Bayung Lencir – Tempino Section 3 Toll Road Construction - Agung Fajarwanto, Rizky A. Saputra, Gregorius A. Sentosa, Akhyaarul U. Azzaqy, Amy R. Widyastuti, Ariel Winfried, Nadlirul Wachid, Dwi Nugroho, Audy Aditriananda and P. Mardiana</p>	<p>Session Chair: Annett Schöttle Exploring the Role of Lean Construction in Decarbonizing the Building Industry: Insights From Industry Experts - Alberto E. Pozzer, Christopher Rausch and Fernanda Leite</p>	<p>Session Chair: Ming Shan Ng Teaching Lean Construction: an Overview of Trends and Future - Eric Forcael, Vicente A. Gonzalez, Rodrigo Herrera, Eder Martínez and Caroll Francesconi</p>
<p>Integrating Agile, Scrum, and LPS Principles: the Development of a Hybrid Agile Lean (HAL) Production Planning & Control System - William Power and Derek Sinnott</p>	<p>Investigating the Role of Lean Tools in Minimizing Construction Waste Across the Triple Bottom Line - Zeina Malaeb and Farook Hamzeh</p>	<p>A Decade of Transformation: the Role of the German Lean Construction Institute in the Construction Industry - Marc Weinmann, Thomas Bär, (Paul) Christian John and Shervin Haghsheno</p>
<p>Roadmap for Implementing Standardized Work in Construction Process with Takt Time Planning - Fabiana Bonesi, Marcus Sterzi, Nicolas F. S. Orellana, Raul A. B. Villanueva and Karina B. Barth</p>	<p>Exploring Lean Principles in Large-scale Renovation: a Review of Socio-economic Impacts - Kädi-Riin Vendel, Ergo Pikas, Lauri Koskela and Müge Tetik</p>	<p>KHS&S – a Case Study of Lean Training for Trade Contractors - Robert Leicht, Blake Tormey, Rob Walter and Elnaz Asadian</p>

17:00 PM - 17:45 PM: **Production System Design** ID 116, 138, 234

Session Chair: John Skaar

Strategic Takt Planning - Iris D. Tommelein and Samir Emdanat

Geotechnical Insights for a Proactive Production System for Earthwork - Kim Simmons, Thomas LaMay and Paz Arroyo

Takt Planning: a Reinterpretation of Adjustment Mechanisms From the Perspective of Slack - Marcus C. T. Fireman and Marco Binninger

17:00 PM - 17:45 PM: **Lean and Green** ID 295, 271, 127

Session Chair: Annett Schöttle

Leaner Construction and Demolition Waste (CDW) Management: Practitioners' Insights - Saleh Alazmi, Imelda Saran Piri, Oisik Das, Mohammed Abdelmegid, Mani Poshdar and Vicente A Gonzalez

Method for Estimating and Planning Carbon Emissions - Kristian Birch Pedersen, Glória Stefankovics, Martin Veis Marxen and Søren Wandahl

Construction Site Emissions: Exploring Sustainable Practices - Müge Tetik, Ergo Pikas, Lauri Koskela and Kädi-Riin Vendel

THURSDAY 5 JUNE 2025

Hall A

9:30 AM - 10:15 AM: Health, Safety and Quality ID 168, 169

Session Chair: Jochen Teizer

Time-lapse Image Processing for Estimating Construction Equipment Emissions - Vimal Bharathi, Kepong Hong and Jochen Teizer

Behavioral Safety Performance Assessment in Construction: a Data-driven Approach in Virtual Reality - Kilian Speiser, Olga Golovina and Jochen Teizer

Hall B

9:30 AM - 10:15 AM: Digital Support for Lean Construction ID 184, 274, 297

Session Chair: Danny Murguia

Use of Computer Vision and Object Detection to Measure Construction Productivity Using Crew Balance Charts - Mauricio J. Toledo, Macarena Lorca and Miguel Mora

Method for Classifying Wastes by Making-do Using Machine Learning - Tatiana Gondim do Amaral, Caio César Medeiros Maciel, Marcos Paulino Roriz Junior and Gabriella
New Model to Minimize Cost and Time of Rework Due to Prefabricated Construction Errors - Reza Maalek

Hall C

9:30 AM - 10:15 AM: People, Culture and Change ID 134, 154, 227

Session Chair: Kristen Parrish

An Investigation of Construction Project Communications Under IPD Constraints - Neil A. Kaufman, Felicia Collins and Haley Rogers

Integrated Project Delivery in Norway – the Clients' Perspective on Challenges - Una Obiose Kriston Nwajei, Trond Bølviken and Magnus Mikael Hellström

Integrating Design and Production Planning to Enhance Collaboration and Secure Project Objectives in Megaprojects: a Reverse Approach - Annett Schöttle and André Haubrich

10:15 AM - 11:00 AM: Production Planning and Control ID 229, 265, 259

Session Chair: Joonas Lehtovaara

Kaizen Events for the Development of the Last Planner System® Maturity in a Construction Project - Kevin Ronceros, Harold Ronceros, Luis Mio, Oscar Miranda, Jose Chicoma and Ricardo Soto

An Agile Approach to Implementing the Principles for Flow Design and Improvement: a Case Study in a Mining Project - Carlos E. Rázuri and Luis F. Alarcón

Lean Thinking for a Digital Last Planner System - Kevin McHugh, Pat Egan and Bhargav Dave

10:15 AM - 11:00 AM: People, Culture and Change ID 180, 279, 205

Session Chair: Kristen Parrish

Revitalizing Language Action in the Last Planner System™ - John Skaar, Trond Bølviken and Bo Terje Kalsaas

The Meaning of Work in Construction: an Individual Well-being Perspective - Sol Skinnarland, Thais da C. L. Alves and Dominic Desmarais

Exploratory Study on Construction Workers Mental Health - Thais da C. L. Alves, Min Liu, Chuanni He, Weilin He and Tejaswini Hegade

11:00 AM - 11:30 AM: Coffee Break

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11:30 AM - 12:15 PM: Production Planning and Control ID 217, 292, 101

Session Chair: Joonas Lehtovaara

What Types of Problem-solving Are Used in the Last Planner System? - Trond Bølviken, John Skaar, Bo Terje Kalsaas and Lauri Koskela

The Last Controller: a Human-centric Approach to Value Delivery in Construction Project Controls - Adam Hoots, Colin Milberg and Vivek Sharma

Optimized Cycle-time Flow Batching: Enhanced Performance in Project Portfolio Management - Doron S. Gabai, Eran Haronian, Rafael Sacks, Mark K. Miera, Tabitha D. Cloyd and Nicah Wong

11:30 AM - 12:15 PM: Digital Support for Lean Construction ID 288, 113, 192

Session Chair: Danny Murguia

Analysis of the Integration Between Digital Twins and Lean Construction for Construction Projects - Jorge Mauricio Ramirez Velasquez and Ivanka Iordanova

Daily Batch Size of Design – Proposal for the Sizing of Design Batches - Eelon Lappalainen, Hisham Abou-Ibrahim, Jyrki Oraskari, Olli Seppänen, Umer Majid and Markus Derry

Simulation and Gamification in Lean Construction: an Overview of Current Applications and Integration Opportunities - Veronic Tuivai, Ali Bidhendi, Mani Poshdar and Kayvan Koohestani

11:30 AM - 12:15 PM: People, Culture and Change ID 136, 232, 171

Session Chair: Patricia Tzortzopoulos

Bridging Perspectives: a Thematic Analysis of Trust in Construction Management - Zeina Malaeb and Farook Hamzeh

Bridging Problem and Solution Spaces: Developing an Innovation Framework with Lean and Agile Methods in Construction - Bernardo Martim Beck da Silva Etges and Carla Schwengber ten Caten

The Adaptive Interoperability Journey: Navigating Fragmentation in Digital AEC Projects - Marc Blancher, Laura Florez-Perez and Danny Murguia

12:15 PM - 13:00 PM: Production Planning and Control and Production System Design ID 129, 165, 187

Session Chair: Tatiana Amaral

What Are the Main Causes of Discontinuous Work? - Asitha Rathnayake, Danny Murguia, Ashan Senel Asmone, Aritra Pal and Campbell Middleton

Model for Production System Design in Modular Construction Projects - Fernanda S. Bataglin, Carlos T. Formoso and Daniela D. Viana

Lean-based Analysis of Factors Influencing Metal Stud Framing and Drywall Workers' Productivity - Hameedullah Ehsas and Zofia Rybkowsk

12:15 PM - 13:00 PM: Product Development ID 250, 272, 273

Session Chair: Frode Drevland

Metrics in Integrated Concurrent Engineering (ICE): Insights, Challenges, and Opportunities - Sivert Risnes Bøen and Frode Drevland

Collaborative Management Practices for High-rise Building Design - Sebastián Parraguez, Karen Castañeda, Edison Atencio and Rodrigo F. Herrera

Design Management in High-rise Building Projects in Chile - Benjamín Aravena, Karen Castañeda, Edison Atencio and Rodrigo F. Herrera

12:15 PM - 13:00 PM: People, Culture and Change ID 294, 140, 118

Session Chair: Patricia Tzortzopoulos

From Projects to Systems: the Alberta Facilities Production System (AFPS) - Lynn Shehab, Jason Russell and Farook Hamzeh

The Hidden Lean: Lessons From Japan - Wataru Kon, Iris D. Tommelein, Gregory F. Saragih, Richardus N. Kasih and Rafael V. Coelho

How Is the Construction Industry Performing? Insights From Four Years of Measurement - Jan A. Elfving, Olli Seppänen and Joonas Lehtovaara

13:00 PM - 14:00 PM: Lunch Break

14:00 PM - 15:00 PM: Plenary

Session 2 ID 218, 115

Session Chair: Thais Alves

**An Exploration of Target Value
Delivery in a Single-entity Design-
build Organisation** - Jeferson Shin-Iti
Shigaki, Takeshi Saito and Hiroaki
Yamasaki

**Strategic Levers for Prefabrication
in Construction: an Economic Case
Study** - Svenja Lauble, Dominik
Steuer, Helena Großmann and Philipp

15:00 PM - 15:30 PM: Coffee Break

15:30 PM - 17:30 PM: Paper 255 and

Lean Simulation Session

Session Chair: Paul Ebbs

**Duplo® Simulation for Introduction
of the Last Planner System®** - David
Umstot and Summer Umstot

FRIDAY 6 JUNE 2025

Hall A

9:30 AM - 10:15 AM: Production System Design *ID 237, 148, 123*

Session Chair: TBD

Method for Designing Macro and Micro Layouts for Storage and Temporary Facilities in Residential Projects Based on Takt Planning - Raquel H. Reck and Marcus C. T. Fireman

Simulation of Takt Time Planning Study Case: Housing in the New Capital City of Indonesia - Rina Asri Aisyah, Abdhy Gazali, Prama Putra, Andek Prabowo, Galang Bastiono and Helen Libastari

A Structured Continuous Improvement Process for High-rise Construction Using Time-motion Studies - Bernardo de Cossio, Danny Murguia, Jorge Gonzalez de Cossio and Jorge Antonio Gonzalez de Cossio

10:15 AM - 11:00 AM: Production Planning and Control *ID 159, 277, 126*

Session Chair: Dave Umstot

Integrating Advanced Work Packaging and Value Stream Mapping Into Last Planner System: an Operational Framework - Ayman Naser

A Multi-criteria Decision Model for Classifying Best Practices to Reduce Making-do Waste - Tatiana Gondim do Amaral, Renato Rafael Del Grosso Filho, Rúbia Cristina de Souza Pessoni, Nadya Regina Galo and Beda Barkokebas

Workflow Issue Identification by Applying Location-based Work Sampling - Malik Madushanka, Tobias Fiirgaard and Cristina T. Pérez

11:00 AM - 11:30 AM: Coffee Break

Hall B

9:30 AM - 10:15 AM: Product Development *ID 142, 144, 275*

Session Chair: Rodrigo Herrera

Plan Validation in TVD: a Healthcare Case Study Project in California - Paz Arroyo, Zofia Rybkowski, Dan Tran and Callahan Lieb

Exploring Opportunities for Integrating Target Value Delivery and Front-end Planning in Industrial Megaprojects - Richardus N. Kasih, Iris D. Tommelein, Rafael V. Coelho, Gregory F. Saragih, Wataru Kon, Richardus B. Utomo and Gerardus B. Kasih

TVD for Enhanced Value: a Case Study of Preconstruction Cost Optimization in Residential Buildings - Frederick M. Gutierrez Lazarte

10:15 AM - 11:00 AM: Product Development *ID 290, 278, 293*

Session Chair: Rodrigo Herrera

House Retrofits: Impacts of Sustainability Measures on Health - Samira Awwal, Patricia Tzortzopoulos, Leigh Fleming and Rakesh Mishra

A Target Value Maturity Model for Performance Target Management in the Design Phase of Lean Construction Projects - Lorine Ouma, Robert Leicht and John Messner

A Framework for Integrating 3P Within TVD - Daniel Forgues, Nicolas Beaulieu, Brenda Da Silva Laurindo and Érik Poirier

11:00 AM - 11:30 AM: Coffee Break

Hall C

9:30 AM - 10:15 AM: Digital Support for Lean Construction *ID 195, 231, 266*

Session Chair: Hisham Abou Ibrahim

Generative AI in Lean Construction: a Scoping Review - Mohammad Hamed Ganji Rad and Mohammad Ilbeigi

Developing a Genai Methodology for Data Analysis in Industrialized Construction: a Lean View - Italo Sepúlveda, Luis F. Alarcón, Beda Barkokebas and Antonia Ebersperger

Towards Enabling Sustainability-aware Operations in Housing Manufacturing with AI-driven Value Stream Mapping: a Review - Miguel Mora, Pingbo Tang and Mauricio Toledo

10:15 AM - 11:00 AM: Digital Support for Lean Construction *ID 137, 207, 196*

Session Chair: Hisham Abou Ibrahim

Perceptions of Robotic Inspections for Confined Spaces in Lean Construction: a Qualitative Study - Zhong Wang, Qiwei Mei, Gaang Lee, Thomas Bock and Vicente A. González

Implications of Construction Robots for On-site Lean Construction: an In-depth Case Study - Rongbo Hu, Jiazhen Mao, Soungho Chae and Justin K.W. Yeoh

Development of a Space Constraint Management Ontology for Lean Construction: Enhancing Constraint Management in Steel Fabrication Projects - Zeyu Mao, Rafiq Ahmad, Farook Hamzeh and Vicente A. Gonzalez

11:00 AM - 11:30 AM: Coffee Break

11:30 AM - 12:15 PM: Production Planning and Control ID 238, 291, 287

Session Chair: Farook Hamzeh

Practices and Barriers to the Adoption of Digital Twin

Construction in Latin America -

Jhonattan G. Martinez, Zulay Giménez,

Luis Salazar, Luis Alva, Luis F.

Alarcón, Timson Yeung and Rafael

Sacks

VDC in Practice: Insights From Production Metrics Reported as Useful by AEC Professionals in Norway - Tulika Majumdar and Katrin Johannesdottir

Implementation of VDC in the Construction Stage of a Hospital: a Case Study -

Adrian R. Gutiérrez

Alvarez, Ronald R. Nuñez Quispe,

Isaac M. Ccoyllar Escobar, Mauricio

A. Melgar-Morales, Felipe M. Arteaga

Linares and David A. Manrique

12:15 PM - 13:00 PM: Modular and Off-Site ID 189, 163

Session Chair: Ivanka Iordanova

A Lean Approach to Productivity Improvement in Roof Panel

Manufacturing for Modular Off-site Construction Using DfMA and

Emerging Technologies -

Amirhossein Mehdipoor, Arash Rohani

Hajiagha, Sahar Mehdipoorkaloorazi

and Ivanka Iordanova

Understanding the Design Process in Modular Construction Projects

Based on Value Stream Mapping -

Vanessa C. Cunha, Carlos T. Formoso,

Louise Amaro and Iamara R. Bulhões

11:30 AM - 12:15 PM: Product Development ID 268, 283, 289

Session Chair: Frode Drevland

Project Governance in a Norwegian Municipality -

Idar Aasland Grande,

Erlend Vassbotn Winther, Ola Lædre

and Atle Engebø

Lean Project Management From the Perspective of Enterprise

Architecture - Eric Forcael, Adrián

Burgos, Edison Atencio, Felipe Muñoz-

La Rivera and Reinaldo Valdebenito

Lean in Action: BZI's Innovation

Process for Steel Erection - Adam

Hoots, Corinne Nalder, James Jeffs,

Shima Clarke and Alex Henry

12:15 PM - 13:00 PM: Digital Support for Lean Construction ID

Session Chair: Claudio Mourgues

A Study of Drone-based Reality Capture for Construction

Management: Kaizen in Daily

Huddles - Jiaxi Zhou, Soungho Chae,

Keiji Tanaka and Rongbo Hu

Feasibility of Eye-trackers for Monitoring Cognitive Load in Lean

Construction 4.0 - Amira Eltahan,

Gaang Lee and Farook Hamzeh

11:30 AM - 12:15 PM: Lean Theory ID 206, 145

Session Chair: Ergo Pikas

Reliable Delivery Order for

Improving Workflow in the

Construction Supply Chain - Yong-

Woo Kim and Glenn Ballard

Prioritizing Lean Construction Practices for Effective Megaproject

Delivery - Abdelazim Ibrahim, Tarek

Zayed and Zoubeir Lafhaj

12:15 PM - 13:00 PM: Learning and Teaching Lean ID 230, 219

Session Chair: Zofia Rybkowski

The Impact of Lean Training Programs on Behavior and

Organizational Performance - Eder

Martinez, Louis Pfister and Eric

Forcael

Direct Work Observations for Workflow Improvement and ISO

18404 Competency Development -

Nour Al Hour, Paul Ebbs and

Emmanuel Manu

13:00 PM - 14:00 PM: Lunch Break

14:00 PM - 16:00 PM: IGLC Business Meetings