eg-ice 2017 Programme

Sunday 9th July 2017

Time	Title	Author (s) / Chair / Location
19:00	**Get together / Ice breaker / Registration**	**ESLC, ground floor**

Monday 10th July 2017

Time	Title	Author (s) / Chair / Location
08:30 - 09:00	Registration	ESLC, C floor
09:00 - 09:15	Opening	**ESLC, room C01**
	Keynote 1	
09:15 - 10:00	Adaptive and responsive built environments	Burcin Becerik-Gerber (University of Southern California)
10:00 - 10:20	Break	
	Session 1 - Optimisation and Search	**Pieter de Wilde**
10:20 - 10:40	(29) Combined Super-Structured and Super-Structure Free Optimisation of Building Spatial Designs (p. 23)	Sjonnie Boonstra, Koen van der Blom, Hèrm Hofmeyer and Michael Emmerich (Eindhoven University of Technology, Leiden University)
10:40 - 11:00	(36) A system for crowdsourcing on-demand quantitative design space exploration in 3dspace (p. 1)	David Birch and Alvise Simondetti (Imperial College London, Arup)
11:00 - 11:20	(17) An integrated ontology-based approach for optimizing structural design at early stage with consideration of environmental impact and cost (p. 323)	Jisong Zhang, Haijiang Li, Yinghua Zhao and Guoqian Ren (Cardiff University, Dalian Maritime University)
11:20 - 11:40	(37) A computational paradigm for the optimisation of steel building structures based on cost and carbon indexes in early design stages (p. 64)	Stathis Eleftheriadis, Cyrille Dunant, Michał Drewniok and Will Rogers-Tizard (University College London, Price & Myers)
11:40 - 12:00	Break	

eg-ice 2017 Programme

	Session 2 - Building Performance Analysis	Philipp Geyer
12:00 - 12:20	(11) Impact of zoning strategies for building performance simulation (p. 35)	Aurelien Bres, Florian Judex, Georg Suter and Pieter de Wilde (Austrian Institute of Technology, Vienna University of Technology, Plymouth University)
12:20 - 12:40	(24) Towards Energy Efficient Operational Patterns in Air Handling Units in Highly Sensed Buildings (p. 45)	Gokmen Dedemen and Semiha Ergan (New York University)
12:40 - 13:00	(35) Using BIM throughout the Occupancy of Residential Buildings to Benefit Homeowners: A Roadmap to Viability (p. 188)	Stewart Long and Haijiang Li (Cardiff University)
13:00 - 14:00	Lunch	ESLC, C floor
	Session 3 - Building Information Modelling	Timo Hartmann
14:00 - 14:20	(9) A framework for ontology-based design assessment for human behaviour during fire evacuation (p. 13)	Calin Boje and Haijiang Li (Cardiff University)
14:20 - 14:40	(39) Framework for shared visualization and real-time information flow to the construction site (p. 286)	Ranjith Soman, David Birch and Jennifer Whyte (Imperial College London)
14:40 - 15:00	(49) BIM for Asset Management: A taxonomy of non-geometric BIM data for asset management (p. 96)	Karim Farghaly, Henry Abanda, Christos Vidalakis and Graham Wood (Oxford Brookes University)
15:00 - 15:20	Break	
	Session 4 - Design Support	Jakob Beetz
15:20 - 15:40	(5) A graph-based generative method for supporting bridge design (p. 294)	Barbara Strug, Ewa Grabska and Grażyna Ślusarczyk (Jagiellonian University)
15:40 - 16:00	(14) Application of graph databases and graph theory concepts for advanced analysing of BIM models based on IFC standard (p. 146)	Ali Ismail, Ahmed Nahar and Raimar Scherer (Technische Universität Dresden)
16:00 - 16:20	(52) BIM-Based Model for the Automatic Generation of Construction Sequences (p. 74)	Yasmeen A. S. Essawy and Khaled Nassar (The American University in Cairo)
17:30 - 19:00	EG-ICE Committee Meeting (members only)	The Hemsley, room B1
19:00	Barbecue (bar opens at 17:00)	The Hemsley

eg-ice 2017 Programme

Time	Title	Author (s) / Chair / Location
08:30 - 09:00	Registration	ESLC, C floor
	Keynote 2	
09:00 - 9:45	The Construction Industry: A Digital Future	Philip Robinson (Laing O'Rourke)
09:45 - 10:00	Break	
	Session 5 - Building Information Modelling	**André Borrmann**
10:00 - 10:20	(10) Towards an adaptive framework for customized civil engineering platforms (p. 250)	Michael Polter and Raimar Scherer (Technische Universität Dresden)
10:20 - 10:40	(12) Construction Health and Safety Management – a Methodological Review Towards a Smart and Holistic Approach (p. 126)	Shang Gao and Haijiang Li (Cardiff University)
10:40 - 11:00	(19) IFC-based Modeling and Management of Design Options (p. 208)	Hannah Mattern and Markus König (Ruhr-Universität Bochum)
11:00 - 11:20	(40) Rules Complexity Classification for Automated Compliance Checking (p. 136)	Seyedamir Hakim, Fulvio Re Cecconi, Mario Claudio Dejaco and Sebastiano Maltese (Politecnico di Milano)
11:20 - 11:40	Break	
	Session 6 - Design Support	**Georg Suter**
11:40 - 12:00	(38) Investigating solar envelope by making use of point cloud data (p.106)	Miktha Farid Alkadri, Michela Turrin and Sevil Sariyildiz (Delft University of Technology)
12:00 - 12:20	(13) Natural language controlled parametric design (p. 303)	Lucian-Constantin Ungureanu and Timo Hartmann (Technical University of Berlin)
12:20 - 12:40	(21) Parametric information modelling of mechanised tunnelling projects for multi-level decision support (p. 228)	Jelena Ninic, Christian Koch and Walid Tizani (University of Nottingham)
12:40 - 13:00	(15) Towards Precedent Based Design Foundations for Parametric Design Systems (p. 178)	Vasiliki Kondyli, Mehul Bhatt and Timo Hartmann (University of Bremen, Technical University of Berlin)

eg-ice 2017 Programme

13:00 - 14:00	Lunch	ESLC, C floor
	Session 7 - Advanced Computing	**Ian Smith**
14:00 - 14:20	(26) Comparison of machine learning algorithms for forecasting of residential complex energy consumption (p. 333)	Miloš Šipetić, Filip Petrushevski and Florian Judex (Austrian Institute of Technology)
14:20 - 14:40	(22) Deep Neural Network Architectures for Component-Based Machine Learning Model in Building Energy Predictions (p. 260)	Sundaravelpandian Singaravel, Philipp Geyer and Johan Suykens (Katholieke Universiteit Leuven)
14:40 - 15:00	(44) Collaborative BIM Reconstruction on Mobile Consumer Devices (p. 116)	Steffen Franz, Robert Irmler and Uwe Rüppel (Technische Universität Darmstadt)
15:00 - 15:20	(42) A Case Study Application of Unmanned Aerial Systems (UAS) on Highway Construction Projects (p. 313)	Xi Wang, Gabriel Dadi and Tim Taylor (University of Kentucky)
15:20 - 15:40	Break	
15:40 - 16:30	**EG-ICE General Assembly (open to all attendees)**	**ESLC, room C01**
17:30 - 19:00	Archery taster session	David Ross Sports Village
19:30	Workshop Dinner	The Hand & Hart

eg-ice 2017 Programme

Time	Title	Author (s) / Chair / Location
08:30 - 09:00	Registration	ESLC, C floor
	Keynote 3	
09:00 - 9:45	Digital transformation of the construction sector	Jennifer Whyte (Imperial College London)
09:45 - 10:00	Break	
	Session 8 - Monitoring and Control	**Haijiang Li**
10:00 - 10:20	(6) IFC-based modeling of cyber-physical systems in civil engineering (p. 269)	Kay Smarsly, Michael Theiler and Kosmas Dragos (Bauhaus University Weimar)
10:20 - 10:40	(18) Improving infrastructure-asset management through reasoning that is compatible with mental models of engineers (p. 279)	Ian Smith (École polytechnique fédérale de Lausanne)
10:40 - 11:00	(41) Case study on Preventative Maintenance for Asphalt Pavements (p. 218)	Dominic Michaels, Brian Wood, Gabriel Dadi and Tim Taylor (University of Kentucky)
11:00 - 11:20	(20) Deformation Monitoring of a Steel Structure Using 3D Terrestrial Laser Scanner (TLS) (p. 168)	Jatmiko and Panos Psimoulis (University of Nottingham)
11:20 - 11:40	Break	
	Session 9 - Knowledge Based Systems and Gaming	**Kay Smarsly**
11:40 - 12:00	(23) Using a knowledge based system for automatic site equipment planning (p. 158)	Katrin Jahr and André Borrmann (Technical University Munich)
12:00 - 12:20	(30) Constructability Assessment Model for Buildings Design (p. 86)	Abdelaziz Fadoul, Walid Tizani and Christian Koch (University of Nottingham)
12:20 - 12:40	(16) Computer Technology for Serious Gaming in Education: A Literature Review (p. 239)	Carlos Arturo Osorio Sandoval, Christian Koch and Walid Tizani (University of Nottingham)
12:40 - 13:00	**Closing Session**	**ESLC, room C01**
13:00 - 14:00	Lunch	ESLC, C floor

Accepted papers not presented at the workshop

Title	Author (s)
(7) An embedded algorithm for detecting and accommodating synchronization effects in wireless SHM systems (p. 54)	Kosmas Dragos and Kay Smarsly (Bauhaus University Weimar)
(28) Application of global sensitivity analysis methods in geotechnical problems (p. 198)	Elham Mahmoudi, Raoul Hölter, Markus König and Tom Schanz (Ruhr-Universität Bochum)