Room	Tuesday 4 July	Wednesday 5 July			Thursday 6 July 2017			Friday 7 July			Saturday 8 July		Sunday 9 July		
		Hermes (Theater)	Thalia	Polymnia	Hermes (Theater)	Thalia	Polymnia	Hermes (Theater)	Thalia	Polymnia	Thalia	Prohm	Hermes	Lobby	Thalia
9:00 AM		Registration (Conf. Centre Lobby)											Lean & BIM 101	Registration (Lobby)	
9:00 AM		**Welcome Session**			Registration (Conf. Centre Lobby)			Registration (Conf. Centre Lobby)					Lean & BIM Implementation SME Practical Experience		Joint Summer School - BIM and Lean
10:00 AM		**Keynote:** Factors affecting bid-ask dates on transportation mega projects. Edward Jaeckles, William Raisford, Min Liu, Abdullah Alshamsi, Frank Bowen, Majed Al-Ghandour and Larry Goode			**Keynote:** BIMification: How to create BIMfor retrofitting. Reinaur J. Scherer and Peter Katranuschkov			**Keynote:** Optimal maintenance of below-grade culverts. Massimiliano Luzi and Igal M. Shohet							
		Coffee Break			Coffee Break			Coffee Break							
11:00 AM		1 Assessing construction workers' vigilance level through wearable electroencephalography system. Jaiyu Chen, Fei Dai and Zeyun Chen 2 Scan-to-BIM for small building components. Marcus Gunnarsson, Samuel A. Prieto, Antonio Adan and Frédéric Bosché	2 Evaluating LeapMotion and LeapWatch as a standard for sharing construction data in the AEC/FM domain. Johannes Dimyadi, Guido Governatori and Robert Amor Current state of data exchange between architectural and structural analysis models - A critical review. Goran Stilerick and Ina Knobloch Developing an Open Access BIM objects library: A Hong Kong study. Weisheng Lu, Kai Chen, Jing Wang and Fan Xue	3 Using 360-degree interactive panoramas to develop virtual representations of construction sites. Ricardo Sira Pereira, Hashem Bab-Hadiashar and Masoud Gheisari Teaching technological leadership in globally distributed teams working with building information models. Carrie Sturts Dossick, Anne Anderson, Nathan Blanchard and Laura Osburn Examining the effect of boundary spanning technologies in virtual project teams. Sierra Costa, John E. Taylor, Carrie Sturts Dossick, Josh Ivris, Anne Anderson and Tripp Shealy	13 The critical role of assessible data for BIM-based automated rule checking systems. Wasan Sulthan, Johannes Dimyadi, Yong-Cheol Lee, Charles Eastman and Robert Amor Development of a BIM adoption impact map. Ury Gluvovich and Rafael Sacks	14 Vision-based detection of bills at flat level surfaces. Binghui Zhang and Zhenhua Zhu Automatic monitoring of operating equipment efficiency for air pollutant emission estimation. Xiaoning Ren, Zhenhua Zhu and Zhi Chen	15 Predictive risk modeling of differential bridge settlement. Jiwei Zhang, Tim Taylor, Roy Boright, Gabe Dale and Mellora Mamlouk Low-cost fleet management solutions in the framework of emerging markets. Dimitra Chondrogianni, Christos Goldiamos and Torgeir Stephenson Resilience assessment of interdependent critical infrastructure systems. Quan Mao and Nan Li	19 Minimizing misclassifications of over-height vehicles due to wind. Berta Nguyen and Ioanna Bitsakos Information technologies and information requirements: a BIM-based approach. Silvia Mastrolembo Ventura, Nicolas Zin and Angela Cridani	20 A case study on comparative analysis of 3D point clouds from UAV and terrestrial laser scanning for bridge condition assessment. Varun Kasireddy and Burcu Akinci Development of 3D-building models using multi-source data: A study of high-density urban area in Hong Kong. Ke Chen, Fan Xue and Weisheng Lu Comparing feature matching algorithms for measuring in-plane strains on civil infrastructure. Yong-Feng, Fei-Dai and Jiaqing Zhao	21 A comparison review of automated construction scheduling methods. Maryam Montazer, Daniel Rebolj and Detlef Heck Using optimization to manage quarries in the recycling of construction and demolition waste. Nadine Abdeghfir, F. Jordan Brour and Noam Shoor Cloud-based project management in the Greek construction industry: What is the distance to cover?. Yiannis Xenidis and Emmanuel Chioritelis	Industry Sponsors Exhibition	
		Break			Break			Break							
12:00 PM		4 Modularized validation of a building information model according to the specifications of the facility management handover and COBie. Yongchao Lee, Eunhee Yang, Charles Eastman and Cathy Eastman 2 Requirements for ontology development in the AECO industry. Aaron Costin and Charles Eastman 3 Proposing a central AEC ontology that allows for domain specific extensions. Maria Hellen Rasmussen, Peter Pauwels, Christian Anker Hansen and Jan Karlshøj	5 Automated construction progress monitoring using continuous multipoint indoor and outdoor 3D scanning. Zoran Pučko and Danijel Rebolj Planning site-detailed visual inspections of construction sites. Henk Fruneels, Jan Mellier and Markus König Pavement anomalies detection and classification using entropic texture segmentation and support vector machines. Georgios Hadjidemetriou and Symeon K. Christodoulou	6 Integrated data analytics-visualization framework for proactive assessment of safety performance. Eirikora Pereira, Sangok Han and Simaan AbouRizk On-site mobile application for enhanced safety and quality. Iqbal M. Mohtat, Bilaana Tak, Mesoimilano Luzi and Matty Revoir BIMSLIFE: GNSS and BIM-data fusion for mapping human-machine interaction. Olga Sokovnina and Jochen Teizer	16 Towards systems integration theory in megaprojects: A system-of-systems framework. Jin Zhu, Ali Mostafavi and Jennifer Whyte Applying system and requirement engineering for information modeling in infrastructure projects. Charles Eastman Torbert and Christopher Cassling Ontology- and filewave-based platform for rapid development of BIM applications with reasoning support. Zhibang Ma and Zhe Liu	17 Recursive segmentation for area bridge information modeling. Rasdan Lu and Ioanna Bitsakos Asphalt road layer detection for construction progress monitoring. Steven Vick and Ioanna Bitsakos UrbanPlanAR: BIM-mobile visualization in urban environments. Ana Vaz, Fernando Branco, Rui Santos, Rui Pedro Lopes, Luísa Bastos, Antonio Vieira, Ernesto Bonomi, Giorgio Baiotti, Rufino Mall and Mirh Nicolo	18 BIMATCON, self-maintaining and rejuvenating constructions. Daniel Rebolj, Riko Bailoni, Andrej Sergo and Nenad Cuk Bailoni Towards a taxonomy of cyber-physical system applications in construction. Nadia Mostafavi-Esfahani and Chinthy Anandha	22 Dialogue types for collaborative design: A front-end BIM application. Mehdi Mirhi Lasso and Aldo Tonola A conceptual model for investigating BIM adoption by organizations. Ahmed Ahmed, John Kissane and Mohamed Kassem A review on capability and maturity models of building information modelling. Gaoan Yilmaz, Ali Akcamete Gungor and Onur Demirors	23 Pre-bid clarification for construction project risk identification using unstructured text data analysis. Jaehee Lee, June-Seong Yi, Jongwook Son and Ye-Eun Jang Construction delay and disruption claims assisted through BIM technology. Agelliki Valavanioglou, Daniel Rebolj and Detlef Heck Structured evaluation of pre-construction cost alternatives with BIM and resource integrated simulation. Gulcan Sevda Balbal and Ragip Aslan	24 Use of augmented reality technology to enhance comprehension of sheet drawing construction. Fugenfeiwan Bademci, Nathan Blom and Raja R. A. Issa Towards people-centred precedents for parametric design: The case of wayfinding in large-scale public buildings. Vasilis Kontiza, Marcel Bruhl and Timo Hartmann Comparison of marker-based and markerless AR: a case study of an indoor decoration system. Jack Chang, Keya Chen and Weiwei Chen	Optional Full day trip - Symposium	Summer School - BIM Summer School - Lean Construction	Lunch (Hotel Restaurant)		
1:00 PM		Lunch (Hotel Restaurant)			Lunch (Hotel Restaurant)			Lunch (Hotel Restaurant)							
2:00 PM		7 Implementing a data-driven simulation method for quantifying pipe welding operator quality performance. Wenying Ji and Simaan AbouRizk 2 Implementation of hybrid occupancy modeling Framework to support building energy simulation. Ashrant Aryal, Michael Chuffum, Cameron S. Walker, Mani Pradhan and M. Adil Abdeneur 3 Using ABM to evaluate the impact of social networks on construction labor productivity. Daniel Koehlen, F. Jordan Brour and Noam Shoor	8 Prevalent issues in BIM-based construction projects. Rahim A. Rahman and Steven K. Ayer Baby steps with BIM – Learning to walk the talk. Kathryn Davies, Suzanne Wilkinson and Damian Manwell MM Innovation Capability Programme of Ireland. Alan Hore, Barry McAuley and Roger West	9 Pattern-based generation of 4D schedules for robust construction management. Juergen Melzner, Jochen Hoff and Jochen Teizer Building information modelling as a cost control tool for critical construction project management. Stylianos Karatzas and Athanasios Chassiakos Predicting highway projects' actual duration using neural networks. Eudoxia Dylios, Athanasios Karatzas, Georgios Aretoulis and Theodoros Masklavas	European Council on Computing in Construction (EC3) Meeting			25 A platform for automated technical building management services using ontology. Georg Ferdinand Schneider, Yashar Kabirzadeh, Georgios D. Kontes, Dominik Grün and Simone Steiger Linked data for cross-domain constraint information sharing in CAD construction. Jan Wang, Wendi Shou, Peng Wu and Xiangyu Wang A platform for enriching BIM representation through semantic web technologies. Davide Simeone and Stefano Cursi	26 Automating the creation of facility and energy management building information models. Daniel Sobieraj, Brandon Bortkuski and J.J. McArthur A cloud-based platform for IFC file enrichment with second-level space boundary topology. Georgios Nektarios Lilis, Kyriakos I. Kiklopatras, Georgios I. Giannakis and Dimitrios Rovas Developing a campus wide building information system based on open standards. Andrea Bulla, Tuomas Kimmanen, Wangan Dave and Kary Frilsbling	27 Can immersive virtual environments be used for understanding occupant-system interactions under thermal stress?. Gulcan Cizicek, Burcin Becerik-Gerber, Ali Ghahamani and Yuchen Wang Impact of immersive and interactive information visualization on construction fighting choices. Juan P. Carrasco and Burcin Becerik-Gerber Reality capture and visualization of 3D at gas facility data for operations and decommissioning. Joao Pedrosa, Huda Dawood and Nashi Dawood	Summer School - BIM Summer School - Lean Construction	Construction Innovation Competition Keynote Construction 2025: Lean & BIM future	Industry Sponsors Exhibition	
3:00 PM		Coffee Break			Coffee Break			Coffee Break							
4:00 PM		10 Automated optimization of steel reinforcement in RC building frames using BIM and hybrid GA. Jack C.P. Cheng and Mohit Mangal 2 Estimating constructability review benefits for highway projects. Matthew Staneback, Roy Sturgill, Kristian Arnold and Timothy Taylor 3 Post-earthquake damage assessment of buildings: an overall overview. Handrosa Rashidi, Javad Majrouhi Sardroud and Ioanna Bitsakos	11 Application of immersive virtual reality systems in an interdisciplinary design studio course. Fatiz Cardinoso, Danielle Oyman, Yifan Liu and John Messner Cognition enhancement using virtual reality in apartment customization. Amit Dryan and Rafael Sacks Integrating virtual reality and BIM for end-user involvement in design: A case study. Madeleine Petrova, Mie Birrin Rasmussen, Rasmus Lund Jensen and Kjeld Scott	12 Development of an urban exodus model: The case study of Aberdeen. Meredith Lowe, Richard Laing, Jake Lovedaj, David McClean and Sandy Beattie Detection of construction equipment using deep convolutional neural networks. Hyoungkwan Kim, Young Woo Heng and Hyeonseok Ko Investigation of terrestrial laser scanning reflectance intensity and RGB distributions to assist construction material identification. Muhammad Usman Hassan, Asli Akcamete and Cagla Meral	Optional Half day trip - Knossos, Skalani, Pezas			28 Data management methods for a 3D product model in graph database. Tsutomu Wakabayashi and Nobuyoshi Yabuki Automated IFC-based processes in the construction sector: A case study of the Norwegian Public Roads Administration. Gudmund Nesheim, Gudrun Frøiland Mellum and Birte Gjerstad A lean based collaboration platform for data transmitting in building design. Zhuohua Huang and Abhi Nair	29 From BIM models to integrated energy efficiency applications for industrial facilities. Georgios Giourtis, Peter Sinnen, Bernhard Hienzl, Ines Leobner and Ina Knoraus Integrating technologies for demand response in blocks of buildings - a UK case study. Tracey Crosbie, John Broderick, Mamunur Dawood, Richard Charlesworth, Vaishnavi Vukkum, Michael Short and Nashwan Dawood Automation of geometry input for building code compliance check. Elisabetta Petrova, Peter Lind Johansen, Rasmus Lund Jensen, Steffen Malskær and Kjeld Scott	30 Integrating visual analytics and machine learning into BIM-enabled facilities management. Christopher Raghubar, Nima Shokouhi, Brandon Bortkuski, Arjun Ao and J.J. McArthur BIM big data system architecture for asset management: A case study of Hamilton Waterworks. Ahmed Farghaly, Henry Abesiis, Christos Anastasiou and Graham Wood Implementation of a preference monitoring application for office building occupants. Yewande Abraham, Zhuian Zhao, Chinwy Anunkha and Somayeh Asadi	Closing Session & W78 Committee Meeting				
5:00 PM		Break			Break			Break							
6:00 PM								Folklore Night, Closing & Awards							
7:00 PM	Registration												KILC Registration		
8:00 PM	Welcome Reception & Poster Session (Beach Bar)												KILC Welcome Reception (Beach Bar)		
9:00 PM															