Conference Schedule

Time slots (Room column): 8:00 AM, 9:00 AM, 10:00 AM, 11:00 AM, 12:00 PM, 1:00 PM, 2:00 PM, 3:00 PM, 4:00 PM, 5:00 PM, 6:00 PM, 7:00 PM, 8:00 PM, 9:00 PM

Tuesday 4 July

- 7:00 PM: **Registration**
- 8:00 PM: **Welcome Reception & Poster Session (Beach Bar)**

Wednesday 5 July

Rooms: Hermes (Theater) | Apollon | Orpheas

- Registration (Conf. Centre Lobby)
- **Welcome Session**
- **Keynote:** Factors affecting bid let dates on transportation mega projects. Edward Jaselskis, William Rasdorf, Min Liu, Abdullah Alsharef, Frank Bowen, Majed Al-Ghandour and Larry Goode
- Coffee Break

Room	Session	Track	#	Paper
Hermes (Theater)	1	Highlight	1	Assessing construction workers' vigilance level through wearable electroencephalography system. Jiayu Chen, Fei Dai and Zejun Chen
			2	Scan-to-BIM for small building components. Blanca Quintana, Samuel A. Prieto, Antonio Adan and Frédéric Bosché
Apollon	2	PPM - Data Exchange	1	Evaluating LegalDocML and LegalRuleML as a standard for sharing normative information in the AEC/FM domain. Johannes Dimyadi, Guido Governatori and Robert Amor
			2	Current state of data exchange between architectural and structural analysis models - A critical review. Goran Sibenik and Iva Kovacic
			3	Developing an Open Access BIM objects library: A Hong Kong study. Weisheng Lu, Ke Chen, Jing Wang and Fan Xue
Orpheas	3	VR - Collaboration	1	Using 360-degree interactive panoramas to develop virtual representation of construction sites. Ricardo Eiris Pereira, Hashem Izadi Moud and Masoud Gheisari
			2	Teaching technological leadership in globally distributed teams working with building information models. Carrie Sturts Dossick, Anne Anderson, Nishant Bordia and Laura Osburn
			3	Examining the effect of boundary spanning technologies in virtual project teams. Semra Comu, John E. Taylor, Carrie Sturts Dossick, Josh Iorio, Anne Anderson and Tripp Shealy

- Break

Room	Session	Track	#	Paper
Hermes (Theater)	4	PPM - Semantics / FM	1	Modularized validation of a building information model according to the specifications of the facility management handover and COBie. Yongcheol Lee, Eunhwa Yang, Charles Eastman and Kathy Roper
			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. Mads Holten Rasmussen, Pieter Pauwels, Christian Anker Hviid and Jan Karlshøj
Apollon	5	DA - Inspection	1	Automated construction progress monitoring using continuous multipoint indoor and outdoor 3D scanning. Zoran Pučko and Danijel Rebolj
			2	Planning uav-assisted visual inspections of construction sites. Henk Freimuth, Jan Müller and Markus König
			3	Pavement anomalies detection and classification using entropic texture segmentation and support vector machines. Georgios Hadjidemetriou and Symeon E. Christodoulou
Orpheas	6	DA - Safety	1	Integrated data analytics-simulation framework for proactive assessment of safety performance. Estacio Pereira, Sanguk Han and Simaan AbouRizk
			2	On-site mobile application for enhanced safety and quality. Igal M. Shohet, Bhanu Tak, Massimiliano Luzi and Matty Revivi
			3	BIM4LIFE: GNSS and BIM data fusion for mapping human-machine interaction. Olga Golovina and Jochen Teizer

- Lunch (Hotel Restaurant)

Room	Session	Track	#	Paper
Hermes (Theater)	7	DA - Simulation	1	Implementing a data-driven simulation method for quantifying pipe welding operator quality performance. Wenying Ji and Simaan AbouRizk
			2	Implementation of hybrid simulation modelling framework in construction. Ashkan M. Naraghi, Vicente A. Gonzalez, Michael O'sullivan, Cameron G. Walker, Mani Poshdar and M. Adel Abdelmegid
			3	Using ABM to evaluate the impact of social networks on construction labor productivity. Daoud Kiomjian, F. Jordan Srour and Issam Srour
Apollon	8	PPM - Learning	1	Prevalent issues in BIM-based construction projects. Rahimi A. Rahman and Steven K. Ayer
			2	Baby steps with BIM – Learning to walk the talk. Kathryn Davies, Suzanne Wilkinson and Dermott Mcmeel
			3	BIM Innovation Capability Programme of Ireland. Alan Hore, Barry McAuley and Roger West
Orpheas	9	PPM - Scheduling	1	Pattern-based generation of 4D-schedules for robust construction management. Juergen Melzner, Jochen Hanff and Jochen Teizer
			2	Building information modelling as a cost control tool for critical chain construction project management. Stylianos Karatzas and Athanasios Chassiakos
			3	Predicting highway projects' actual duration using neural networks. Euthimios Glymis, Athanasios Kanelakis, Georgios Aretoulis and Theodoros Mastoras

- Coffee Break

Room	Session	Track	#	Paper
Hermes (Theater)	10	DA	1	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. Nikiforos Stamatiadis, Roy Sturgill, Kiriakos Amiridis and Timothy Taylor
			3	Post-earthquake damage assessment of buildings: an overall overview. Hamidreza Rashidi, Javad Majrouhi Sardroud and Ioannis Brilakis
Apollon	11	VR - Design	1	Application of immersive virtual reality systems in an interdisciplinary design studio course. Fadi Castronovo, Danielle Oprean, Yifan Liu and John Messner
			2	Cognition enhancement using virtual reality in apartment customization. Amit Dayan and Rafael Sacks
			3	Integrating virtual reality and BIM for end-user involvement in design: A case study. Ekaterina Petrova, Mai Brink Rasmussen, Rasmus Lund Jensen and Kjeld Svidt
Orpheas	12	DA - Inspection / Point cloud	1	Development of an urban as-built model: The case study of Aberdeen. Marianthi Leon, Richard Laing, Jake Loveday, David McClean and Sandy Beattie
			2	Detection of construction equipment using deep convolutional networks. Hongjo Kim, Hyoungkwan Kim, Yong Won Hong and Hyeran Byun
			3	Investigation of terrestrial laser scanning reflectance intensity and RGB distributions to assist construction material identification. Muhammad Usman Hassan, Asli Akcamete and Cagla Meral

- Break

Room	Session	Track	#	Paper
Hermes (Theater)	31	VR - Safety	1	Serious games vs. traditional tools in construction safety training: a review. Yifan Gao, Vicente A. González and Tak Wing Yiu
			2	The need for enhancing earthquake evacuee safety by using virtual reality serious games. Ruggiero Lovreglio, Vicente Gonzalez, Robert Amor, Michael Spearpoint, Jared Thomas, Margaret Trotter and Rafael Sacks
			3	Safety training for scaffolding and formwork construction by using virtual environment. Isik Ates Kiral and Semra Comu
Apollon	32	EMM - Design	1	Evolutionary optimization of building envelope design with photovoltaics-integrated shading devices. Ipek Gürsel Dino
			2	The influence of space layout design on occupant's energy behaviour. Elham Delzendeh and Song Wu
			3	Decision support tool for energy efficient building retrofit actions. Farid Fouchal, Vanda Dimitriou, Tarek M Hassan, Steven Firth, Argyris Oraiopoulos, Jonathan Masior and Sven Schimpf
Orpheas				**JCCE AE Meeting**

Thursday 6 July 2017

Rooms: Hermes (Theater) | Apollon | Orpheas

- Registration (Conf. Centre Lobby)
- **Keynote:** BIMification: How to create BIM for retrofitting. Raimar J. Scherer and Peter Katranuschkov
- Coffee Break

Room	Session	Track	#	Paper
Hermes (Theater)	13	Highlight	1	The critical role of accessible data for BIM-based automated rule checking systems. Wawan Solihin, Johannes Dimyadi, Yong-Cheol Lee, Charles Eastman and Robert Amor
			2	Development of a BIM adoption impact map. Ury Gurevich and Rafael Sacks
Apollon	14	DA - Safety / Equipment	1	Vision-based detection of falls at flat level surfaces. Bingfei Zhang and Zhenhua Zhu
			2	Automatic monitoring of operating equipment efficiency for air pollutant emission estimation. Xiaoning Ren, Zhenhua Zhu and Zhi Chen
			3	
Orpheas	15	ITS/SE	1	Predictive risk modeling of differential bridge settlement. Jiwen Zhang, Tim Taylor, Roy Sturgill, Gabe Dadi and Nikiforos Stamatiadis
			2	Low-cost fleet management solutions in the framework of emerging markets. Dimitra Chondrogianni, Christos Gioldasis and Yorgos Stephanedes
			3	Resilience assessment of interdependent critical infrastructure systems. Quan Mao and Nan Li

- Break

Room	Session	Track	#	Paper
Hermes (Theater)	16	SE	1	Towards systems integration theory in megaprojects: A system-of-systems framework. Jin Zhu, Ali Mostafavi and Jennifer Whyte
			2	Applying system and requirement engineering for information modeling in infrastructure projects. Charles-Edouard Tolmer and Christophe Castaing
			3	Ontology- and freeware-based platform for rapid development of BIM applications with reasoning support. Zhiliang Ma and Zhe Liu
Apollon	17	DA (Point cloud) / AR	1	Recursive segmentation for as-is bridge information modelling. Ruodan Lu and Ioannis Brilakis
			2	Asphalt road layer detection for construction progress monitoring. Steven Vick and Ioannis Brilakis
			3	UrbanPlanAR: BIM mobile visualisation in urban environments with occlusion-aware augmented reality. Ludovico Carozza, Enrique Valero, Frédéric Bosché, George Banfill, Rufus Mall and Minh Nguyen
Orpheas	18	SSD R/PPM	1	Building model object classification for semantic enrichment using geometric features and pairwise spatial relationships. Ling Ma, Rafael Sacks and Uri Kattel
			2	SMARTCON, self-maintaining and rejuvenating constructions. Danijel Rebolj, Riko Šafarič, Andrej Šorgo and Nenad Čuš Babič
			3	Towards a taxonomy of cyber-physical system applications in construction. Nazila Roofigari-Esfahan and Chimay Anumba

- Lunch (Hotel Restaurant)
- **European Council on Computing in Construction (EC3) Meeting**
- Optional Half day trip - Knossos, Skalani, Peza

Friday 7 July

Rooms: Hermes (Theater) | Apollon | Orpheas

- Registration (Conf. Centre Lobby)
- **Keynote:** Optimal maintenance of below-grade culverts. Massimiliano Luzi and Igal M. Shohet
- Coffee Break

Room	Session	Track	#	Paper
Hermes (Theater)	19	Highlight	1	Minimising misclassifications of over-height vehicles due to wind. Bella Nguyen and Ioannis Brilakis
			2	Information technologies and information requirements: a BIM-based approach. Silvia Mastrolembo Ventura, Nicolas Ziv and Angelo Ciribini
Apollon	20	DA - Point cloud	1	A case study on comparative analysis of 3D point clouds from UAV and terrestrial scanners for bridge condition assessment. Varun Kasireddy and Burcu Akinci
			2	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
			3	Comparing feature matching algorithms for measuring in-plane strains on civil infrastructures. Youyi Feng, Fei Dai and Jiaqing Zhao
Orpheas	21	PPM - Scheduling	1	A comparison review of automated construction scheduling methods. Maryam Montazer, Danijel Rebolj and Detlef Heck
			2	Using optimization to manage quarries in the recycling of construction and demolition waste. Nadine Alzaghrini, F. Jordan Srour and Issam Srour
			3	Cloud based project management in the Greek construction industry: What is the distance to cover?. Yiannis Xenidis and Emmanouil Chiotakis

- Break

Room	Session	Track	#	Paper
Hermes (Theater)	22	PPM - BIM Adoption	1	Dialogue types for collaborative design: A front-end BIM application. Marianthi Leon and Alice Toniolo
			2	A conceptual model for investigating BIM adoption by organisations. Ahmed Ahmed, John Kawalek and Mohamad Kassem
			3	A review on capability and maturity models of building information modelling. Gokcen Yilmaz, Asli Akcamete Gungor and Onur Demirors
Apollon	23	DA - Procurement	1	Pre-bid clarification for construction project risk identification using unstructured text data analysis. Jeehee Lee, June-Seong Yi, Jeongwook Son and Ye-Eun Jang
			2	Construction delay and disruption claims assisted through BIM technology. Ageliki Valavanoglou, Danijel Rebolj and Detlef Heck
			3	Structured evaluation of pre-construction cost alternatives with BIM and resource integrated simulation. Gulsum Sevde Baltasi and Ragip Akbas
Orpheas	24	AR	1	Use of augmented reality technology to enhance comprehension of steel structure construction. Fopefoluwa Bademosi, Nathan Blinn and Raja R. A. Issa
			2	Towards people-cenred precedents for parametric design: The case of wayfinding in large-scale public buildings. Vasiliki Kondyli, Mehul Bhatt and Timo Hartmann
			3	Comparison of marker-based and markerless AR: a case study of an indoor decoration system. Jack Cheng, Keyu Chen and Weiwei Chen

- Lunch (Hotel Restaurant)

Room	Session	Track	#	Paper
Hermes (Theater)	25	PPM - Semantics	1	A platform for automated technical building management services using ontology. Georg Ferdinand Schneider, Yashar Kalantari, Georgios D. Kontes, Gunnar Grün and Simone Steiger
			2	Linked data for cross-domain constraint information sharing in LNG construction. Jun Wang, Wenchi Shou, Peng Wu and Xiangyu Wang
			3	A platform for enriching BIM representation through semantic web technologies. Davide Simeone and Stefano Cursi
Apollon	26	EMM/DA - FM	1	Automating the creation of facility and energy management building information models. Daniel Sobieraj, Brandon Bortoluzzi and J.J. McArthur
			2	A cloud-based platform for IFC file enrichment with second-level space boundary topology. Georgios Nektarios Lilis, Kyriakos I. Katsigarakis, Georgios I. Giannakis and Dimitrios Rovas
			3	Developing a campus wide building information system based on open standards. Andrea Buda, Tuomas Kinnunen, Bhargav Dave and Kary Främling
Orpheas	27	VR - FM	1	Can immersive virtual environments be used for understanding occupant-system interactions under thermal stimuli?. Gokce Ozcelik, Burcin Becerik-Gerber, Ali Ghahramani and Yuchao Wang
			2	Impact of immersive and interactive information visualization on occupant's lighting choices. Joao P. Carneiro and Burcin Becerik-Gerber
			3	Reality capture and visualisation of 3D oil & gas facility data for operations and decommissioning. Joao Patacas, Huda Dawood and Nash Dawood

- Coffee Break

Room	Session	Track	#	Paper
Hermes (Theater)	28	PPM - Data Exchange	1	Data management methods for a 3D product model in graph database. Tsutomu Watanuki and Nobuyoshi Yabuki
			2	Automated IFC-based processes in the construction sector: A method for improving the information flow. Claudio Mirarchi, Daniela Pasini, Alberto Pavan and Bruno Daniotti
			3	A bim based collaboration platform for data transmitting in building design. Zhuohua Huang and Aizhu Ren
Apollon	29	EMM	1	From BIM models to integrated energy efficiency applications for industrial facilities. Georgios Gourlis, Peter Smolek, Bernhard Heinzl, Ines Leobner and Iva Kovacic
			2	Integrating technologies for demand response in blocks of buildings - a UK case study. Tracey Crosbie, John Broderick, Muneeb Dawood, Richard Charlesworth, Vladimir Vukovic, Michael Short and Nashwan Dawood
			3	Automation of geometry input for building code compliance check. Ekaterina Petrova, Peter Lind Johansen, Rasmus Lund Jensen, Steffen Maagaard and Kjeld Svidt
Orpheas	30	DA - FM	1	Integrating visual analytics and machine learning into BIM-enabled facilities management.. Christopher Raghubar, Nima Shahbazi, Brandon Bortoluzzi, Aijun An and J.J. McArthur
			2	BIM big data system architecture for asset management: A conceptual framework. Karim Farghaly, Henry Abanda, Christos Vidalakis and Graham Wood
			3	Implementation of a preference monitoring application for office building occupants. Yewande Abraham, Zhidan Zhao, Chimay Anumba and Somayeh Asadi

- Break
- **Closing Session & W78 Committee Meeting**
- Break
- **Folklore Night, Closing & Awards**

Saturday 8 July

Rooms: Apollo | Room

- Optional Full day trip - Spinalonga
- Apollo: Summer School - BIM (morning); Summer School - BIM (afternoon)
- Room: Summer School - Lean Construction (morning); Summer School - Lean Construction (afternoon)

Sunday 9 July

Rooms: Hermes | Lobby | Apollon

Hermes	Lobby	Apollon
Lean & BIM 101	Registration (Lobby)	
Lean & BIM Implementation: SME Practical Experience	Industry Sponsors Exhibition	Joint Summer School - BIM and Lean
Coffee Break		
Lean & BIM Implementation: Large Firm Experience		
Lunch (Hotel Restaurant)		
Construction Innovation Competition	Industry Sponsors Exhibition	Joint Summer School - BIM and Lean
Keynote		
Coffee Break		
Construction 2025: Lean & BIM future		
IGLC Registration		
IGLC Welcome Reception (Beach Bar)		