

CONFERENCE PROGRAM

- DRAFT



3D AUSTRALIA 2017

3D Cadastre Training (9am-5pm)

Tuesday 24th October 2017, Old Engineering School, The University of Melbourne, Parkville

Urban Analytics Data Infrastructure Launch (6pm-8pm)

3D AUSTRALIA 2017

BIM and GIS Integration Workshop

Wednesday 25th October 2017- Old Engineering School, The University of Melbourne, Parkville

7:30 am to 9:00 am Registration and Reception

OPENING SESSION

9:15 am to 10:30 am
Welcome
Mohsen Kalantari, Chair of IAG BIM/GIS working group
Keynote Address: A Coordinated Vision for GIS, BIM and Digital Engineering
John Mitchell, Director, buildingSMART Australasia chapter

10:30 am to 11:00 am Break

SESSION 1: BIM and GIS INTEGRATION WORKSHOP - TECHNICAL PERSPECTIVES

11:00 am to 12:30 pm
The Automation Challenge of Mapping IFC-BIM Models into CityGML Building Models (2)
Rudi Stouffs and Patrick Janssen
Urban Building Heritage Management with LiDAR, BIM and GIS (10)
Sean William Morrish and Debra Laefer
Prioritizing Maintenance Plan of Civil Infrastructure Systems through an Integration Framework of BIM and GIS (5)
Jiawei Chen, Pingbo Tang and Todd E Rakstad
Modelling Disaster Risk Management: A BIM-GIS Integration Approach (6)
Azadeh Maghooli and Farid Karimipour

12:30 pm to 1:30 pm

Lunch

SESSION 2: BIM and GIS INTEGRATION WORKSHOP - STANDARDS PERSPECTIVES

1:30 pm to 3:00 pm	Open Information Exchange Standards for the Integrated Digital Built Environment (9) Jim Plume
	A Standards Perspective of BIM-GIS Integration Chris Body
	Building SMART Alliance and Open Geospatial Consortium Framework for Collaboration on BIM-GIS Interoperability (8) Jim Plume, Carsten Roensdorf and Scott Simmons

3:00 pm to 3:30 pm

Break

SESSION 3: BIM and GIS INTEGRATION WORKSHOP - STRATEGIC PERSPECTIVES

3:30 pm to 5:00 pm	A Conceptual Framework for Multi-Scale Urban Energy Modelling Using 3D Geospatial Technology (12) Soheil Sabri, Behzad Rismanchi and Abbas Rajabifard
	Exploring the Legal and Institutional Implications of Australian Public Policy Perspectives Towards Leveraging BIM-GIS (3) Ilsa Kuiper and Colin Duffield
	BIM-GIS Integration as Dedicated and Independent Course for Geoinformatics Students: Merits, Challenges, and Ways Forward (4) Ihab Hijazi, Andreas Donaubauer and Thomas Kolbe
	Comparison of a Smart Mobile Application-Supported Evacuation System and Traditional Evacuation Systems Yasin Ortakci, Umit Atila, Emrullah Demiral, Kasim Ozacar and Ismail Rakip Karas
	Data Requirement of Public Space in 3D: Physical and Social Dimensions (11) Zhixuan Yang and Abbas Rajabifard

3D AUSTRALIA 2017

3D GEOINFO CONFERENCE 2017

Thursday 26th October 2017- Old Engineering School, The University of Melbourne, Parkville

OPENING CEREMONIES

8:45 am to 10:30 am	Welcome Abbas Rajabifard and Mohsen Kalantari
	Keynote Address 1: 3D Queensland Steven Jacoby, Executive Director Land & Spatial Information - Queensland Department of Natural Resources & Mines
	Keynote Address 2: Smart City Transitions and nD System Challenges and Opportunities Greg Foliente, The University of Melbourne
10:30 am to 11:00 am	Break

SESSION 1: DRIVERS OF 3D GEOGRAPHIC INFORMATION

11:00 am to 12:30 pm	User Requirements Gathering for 3D Geographic Information in the United Kingdom (26) Kelvin Wong and Claire Ellul
	CityGML and the Streets of New York - A Proposal for Detailed Street Space Modelling (9) Christof Beil and Thomas H. Kolbe
	Exploring the Potential of BIM for Operational Integrated Asset Management - a Real World Infrastructure Example (28) Gareth Boyes, Claire Ellul and Daniel Irwin
	Industry talk: 3D City Heritage, It's Place in a Smart, Sustainable City (23) Sean William Morrish and Debra Laefer

12:00 pm to 1:30 pm

Lunch

SESSION 2: REASONING AND ORGANISING 3D GEOGRAPHIC INFORMATION

1:30 pm to 3:00 pm	Model for Reasoning from Semantically Rich Point Cloud Data (22) Florent Poux, Romain Neuville, Pierre Hallot and Roland Billen
	Spatio-Semantic Comparison of Large 3D City Models in CityGML using a Graph Database (12) Son H. Nguyen, Zhihang Yao and Thomas H. Kolbe
	Towards a Decision Support Tool for Mapping and Rendering 3D Models: Application to Selectivity Purpose of Single Object in a 3D City Scene (19) Romain Neuville, Jacynthe Pouliot, Florent Poux, Pierre Hallot, Laurent De Rudder and Roland Billen
	Topologically Consistent Models for Efficient Big Geo-Spatial Data Distribution (13) Markus Jahn, Patrick Bradley, Mulhim Al-Doorri and Martin Breunig
	Industry talk: Working with 3D Geoscape Data in ArcGIS (25) Simon Jackson

3:00 pm to 3:30 pm

Break

SESSION 3: FROM GEOGRAPHIC INFORMATION TO INDOOR INFORMATION

3:30 pm to 5:00 pm	Integration of GIS and BIM Data: What Are the Geometric and Topological Issues? (32) Ken Arroyo Ohori, Filip Biljecki, Abdoulaye Diakité, Thomas Krijnen, Hugo Ledoux and Jantien Stoter
	Stochastic and Geometric Reasoning for Indoor Building Models with Electric Installations – Bridging the Gap between GIS and BIM (35) Youness Dehbi, Jan-Henrik Haurert and Lutz Plümer
	About the Subdivision of Indoor Spaces in IndoorGML (20) Abdoulaye Abou Diakité, Sisi Zlatanova and Ki-Joune Li
	Industry Talk: Multiple Environments for Visualising Spatial Reality: Blurring the Lines between Geospatial Visualisation and Virtual Reality (17) Keri Niven and Cameron Irvine

3D GEOINFO CONFERENCE 2017

Friday 27th October 2017- Old Engineering School, The University of Melbourne, Parkville

WELCOME

Co-chairs Professor Abbas Rajabifard & Dr. Mohsen Kalantari

9:00 am to 10:30 am	Keynote Address 1: 3D Cadastre in Augmented / Virtual Reality Craig Sandy, Surveyor General of Victoria
	Keynote Address 2: 3D GeoInfo and the Smart City Approach: A better way to understand and prepare for change David Hasset, Team Leader GIS, Smart City Office, City of Melbourne
	Keynote Address 3: The importance of 3D information for building the cities of tomorrow Mr Joseph Abhayaratna, CTO of PSMA Australia; Co-chair of OGC Smart Cities DWG

10:30 am to 11:00 am

Break

SESSION 4: POTENTIAL APPLICATIONS OF 3D GEOGRAPHIC INFORMATION

11:00 am to 12:30 pm	Estimating Building Age with 3D GIS (16) Filip Biljecki and Maximilian Sindram
	CityBEM: an Open Source Implementation and Validation of Monthly Heating and Cooling Energy Needs for 3D Buildings in Cities (33) Syed Monjur Murshed, Solène Picard and Andreas Koch
	Solar Potential Analysis and Integration of the Time-dependent Simulation Results for Semantic 3D City Models using Dynamizers (14) Kanishk Chaturvedi, Bruno Willenborg, Maximilian Sindram and Thomas H. Kolbe
	Modelling Urban Noise in CityGML ADE: Case of the Netherlands (36) Kavisha Kumar, Hugo Ledoux, Tom Commandeur and Jantien Stoter
	Industry talk: 3D Neighbourhood Surveys for Architecture and Planning (30) Simon Cookes

12:00 pm to 1:30 pm

Lunch

SESSION 5: 3D GEOGRAPHIC INFORMATION IN ACTION

1:30 pm to 3:00 pm	Capture and Three Dimensional Projection of New South Wales Strata Plans in LandXML Format (5) Brad Harding and Ashleigh Foreman
	3D Digital Cadastre Journey in Victoria, Australia (10) Davood Shojaei, Hamed Olfat, Mark Briffa and Abbas Rajabifard
	Industry Talk Integration of Citizen Information into 3D Cadastral System with Applications (44) Shen Ying, Renzhong Guo, Weiyang Li, Zhigang Zhao and Biao He
	Industry Talk :3D Queensland and the Digital Built Environment (24) Michael Haines
	Industry Talk: The Cycle of Digital Cadastral Survey Information in New Zealand: Closing the Loop with 3D (40) Trent Gulliver

3:00 pm to 3:30 pm

Break

SESSION 6: SHORT PRESENTATIONS

3:30 pm to 5:00 pm	Investigating Integration Capabilities between IFC and CityGML LoD3 for 3D City Modelling (37) George Floros, John Pispidikis and Efi Dimopoulou
	CityGML Modelling for Singapore 3D National Mapping (7) Kean Huat Soon and Victor Khoo
	Indoor Space Location Model Based on Location Service (34) Yan Zhou, Guixiang Zeng, and Yueying Huang
	A WebGIS to Support GPR 3D Data Acquisition: A First Step for the Integration of Underground Utility Networks in 3D City Models Paulo Guilherme Tabarro, Jacynthe Pouliot, Richard Fortier and Louis-Martin Losier
	High-resolution Urban Greenery Mapping for Micro-Climature Modelling Based on 3-D City Models (41) Jaroslav Hofierka, Michal Gallay, Jan Kanuk, Jozef Supinsky and Jan Sasak
	Acquisition and Processing of High Resolution Hyperspectral Imageries for the 3D Mapping of Urban Heat Islands and Microparticles of Montreal (42) Richard Mongeau, Francois Cavayas and Yves Baudouin
	Multi-Dimensional Pattern Discovery of Trajectories Using Contextual Information (38) Mohammad Sharif and Ali Asghar Alesheikh
	LADM and INTERLIS as a Perfect Match for 3D Cadastre (43) Eftychia Kalogianni, Efi Dimopoulou, Wilko Quak and Peter van Oosterom