

3rd Edition INTERNATIONAL SUMMER SCHOOL ONLINE 2022





GIS-BIM for a digital integrated design



3rd Edition 2022
15 July
29 July



DRAFT ACTIVITY PLAN TIMESHEET

				Total hours	Recorded Lesson on Moodle	Hours of live activity	Date of live activities on Moodle	
P	Summer school opening ceremony			1,0		1	15 July 2022	
Module 1	GIS and BIM: Digital Transformation of the Construction Industry							
1a	The Digital Transformation of the Construction Industry. A choice of Industrial Policy. The strategic role of international standardization in BIM. Scenarios and Standards of the ISO standard 19650:2018. Definitions and Considerations from EUBIM Task group Handbook;	SAPIENZA University of Rome	Francesco Ruperto	2,0	2,0			
1b	Digital methods and tools in the construction process for an efficient project management workflow: case histories of digital Twins for Residential design solutions. Activities from GIS, BIM and Digital Twin CITERA Laboratory	SAPIENZA University of Rome	Sofia Agostinelli	2,0	2,0			
1c	Construction 4.0: Advanced Technology, Tools and Materials for the Digital Transformation of the Construction Industry	SAPIENZA University of Rome	Marco Casini	2,0	2,0			
1d	Digital methods and tools in the construction process for an efficient project management workflow: case histories. Interaction of Digital Twins & Artificial Intelligence systems aimed at optimizing processes	University of Verona	Claudio Tomazzoli	3,0	3,0			
Module 2	GIS-BIM Theory and practice							
2a	Geographic Information Systems and its integration with BIM methodologies. Why to integrate GIS with the BIM methodologies, tools and procedures? Beyond the 3D modelling: geography and GIS multi-thematic environment, additional dimensions of BIM data.	SAPIENZA University of Rome	Patrick Maurelli	4,0	4,0			
2b	A case study of excellence in the integration of GIS-BIM in Italy in large infrastructural works		TBD	2,0	1,0			
Module 3	Historic building information modelling (HBIM)							
3	The integrated management of sustainable processes of requalification and recovery in the architectural and environmental heritage. Purpose of the activity is to learn what are the methods and tools to investigate and learn about historical architecture and subsequently organize the data for different types of processing: on one hand the use of ICT to communicate historical and cultural heritage; on the other hand, the use of HBIM to preserve and reuse existing buildings and areas.	SAPIENZA University of Rome	Tommaso Empler	2,0	2,0			
Intermediate test 25 July 2022				1,0	1,0			
Module 4	GIS and BIM International Case Histories							
4.1	Data Collection (Survey and GIS) – Information Modeling (3D Modelling). Building Understanding (Collaboration and Information Exchange /Visualisation) Decision Making THEORY	University of Nottingham Ningbo China	Georgios Kapogiannis	1,0	3,0			
4.2	From Policy to Implementation		Nicoleta Panagiotidou	1,0				
4.3	Design and Modelling as well as the importance of manufacturing contribution (Asset Information Modelling and GIS), from a Business and Project perspective.		Georgios Kapogiannis	1,0				
4.4	Case studies			MichaelWoldemariam	1,0		1	Live lesson from 25 to 27 of July 2022
5	The Digital Transformation of the Construction Industry in China (TBC)	Univ. Yangzhou (China)	ZHANG Bing Peng Ye	4,0	3,0	1		
6	The Digital Transformation of the Construction Industry in Indonesia (TBC)	Institut Teknologi Bandung	TBD	4,0	3,0	1		
7	BIM and Tropical Architecture solutions in Costa Rica (TBC)	Universidad de Costa Rica	Emily Vargas	4,0	3,0	1		
8	Digital Twin experience UTP Panamá (TBC)	Universidad Tecnologica de Panamá	Martin Edmundo Candanedo	4,0	3,0	1		
Final test on MOODLE Platform				1,0		1,0	28 of July 2022	
Lessons on the E-Learning MOODLE platform in asynchronous mode					32,0		From 15 to 24 of July 2022	
Total blended activities (live activities via E-Learning MOODLE Platform)						8	Live lesson from 25 to 27 of July 2022	
Total hours of activity (recorded and live)				40,0				
1 hour = 50 minutes video lesson				Rev. 7				