

Alberto Pavan,

Architect,

- Associate professor of *Construction Management and Project management* at AIUC (Architecture, Urban Planning, Construction Engineering) School of Politecnico di Milano (2021/--)
- Assistant professor of *Construction Management, Project management and Architectural Design Studio For Complex Constructions - Technology And Design in Bim Environment*; at AIUC (Architecture, Urban Planning, Construction Engineering) School of Politecnico di Milano (2018-2020)
- Research fellow of *Project management* at Politecnico di Milano (2013-2017)
- Lecturer of *Project management, Economic evaluation of plans and projects, Management of real estate assets, Economics and Appraisal in construction* at Politecnico di Milano (2001-2012)

PhD courses:

- *Research In Building Process Management: Towards A Digital And Circular Economy* - Politecnico di Milano (2018/--)

Master courses (others universities or schools):

- *BIM A+ European Master In Building Information Modelling* - Universidade do Minho, University of Ljubljana, Politecnico di Milano (2019/--)
- *Bim- Building Information Modeling* – Università La Sapienza (Rome)
- *BIM – Expert in computer modeling and project management* – Università di Udine (2020/--)
- *Bim- for the management of design processes* – Università di Firenze (2018/--)
- *Infrastructure BIManager* – Politecnico di Torino (2018/--)
- *Bim- Building Information Modeling* – Università di Reggio Calabria
- *BIM Manager* – Scuola Pesenti – Politecnico di Milano (2017/--)

Education (essentials):

- PHD – *Building Systems and Processes*, Dip. BEST - Politecnico di Milano (2007)
- MASTER DEGREE II Level – “*Polis Maker for the management of the transformation of urban settlements. Choices and interventions for the quality of life*” - Politecnico di Milano, Università degli Studi di Milano Bicocca, Università Cattolica del Sacro Cuore, Università Carlo Cattaneo LIUC, International University of Monaco IUM; (2009/2010)
- MASTER DEGREE – *Architecture* - Politecnico di Milano (1994)

Projects (essentials):

1. PRINCIPAL INVESTIGATOR project H2020: “*DigiPLACE (Digital PLATform for Construction in Europe)*”; project cost € 1.000.000,00; (2019/--)
2. RESEARCH GROUP LEADER task: WP2-T2.3 - WP4-T4.1 - WP9-T9.3, project H2020: “*BIM4EEB - BIMbased fast toolkit for Efficient rEnovationin Buildings*”; project cost € 6.933.940,00; (2019/--)

3. PRINCIPAL INVESTIGATOR project: "*INNOVance - Digital Italian platform for construction sector*"; Industry 2015 grant, Efficiency Energy, MISE - Ministry of Economic Development; project cost: 16.320.703 €; (2011/2014)
4. PRINCIPAL INVESTIGATOR project: "*BIMRel – BIM platform for construction product*"; "Smart Living" grant, Regione Lombardia; project cost: € 2.000.000; (2019/--)
5. PRINCIPAL INVESTIGATOR project: "*GREEN BIM - Green Building Information Modeling*"; POR Calabria FESR 2014- 2020; (2017/2019)
6. RESEARCH GROUP LEADER task: OR1: "*Building Logbook*"; project: "From BIM to CIM "; POR Campania FESR 2014 – 2020; (2018/2020)
7. CO- PRINCIPAL INVESTIGATOR project: "*Protocol for the digital verification of building practices*" (E-permit), City of Milan, Politecnico di Milano, Architects Register of Milan; (2016/2020)

Standards:

8. PRESIDENT subcommittee UNI/CT 033/SC02 "*BIM and digital management of construction information processes*"; (2019/--)
9. EXPERT at ISO TC 59/SC16/ WG13 – Implementation of collaborative working over the asset lifecycle: ISO/DIS 10650; (2015/--)
10. EXPERT at CEN TC 442 - Building Information Modelling: WG3 – Information Delivery specification; WG4 – Support Data Dictionaries; (2015/--)

Researches (essentials):

11. SUPERVISOR of research programme: "*Analysis of standards, administrative procedures, protocols and engineering knowledge in order to determine the parameters necessary for code checking and telematic validation of the digital model of the building (BIM)*" - Politecnico di Milano/ABC - ACCA spa; (2017/2018)
12. CO- SUPERVISOR of research programme: "*Structuring of a standard general information specifications for works and/or services contracts of the Department according to the standard UNI 11337:2017*" - Politecnico di Milano/ABC - Interregional Department for Public Works of Lombardia and Emilia Romagna (MIT); (2018/2019)
13. SUPERVISOR of research programme: "*Knowledge network for product and process innovation in the construction sector. Sustainability, energy efficiency and digitalisation for businesses and the supply chain*", PhD School, Dip.ABC-Politecnico di Milano / AssimpredilANCE, XXXI Cycle; (2015/2019)

Titles:

14. RESEARCH GROUP MEMBER, *Linked Building Data Community Group*, W3C (The World Wide Web Consortium); (2017/--)
15. MEMBER of the Governing Council, *Building Smart Italy*, Italian chapter of Building Smart International (BSI); (2005/2015)
16. DEPUTY MANAGER European Master - II Level - "*BIM A+ european master in building information modelling*" - ERASMUS+ - AA 2019/20 2020/21; Universidade do Minho, University of Ljubljana, Politecnico di Milano;

17. MEMBER of the Master's Committee di I e II level “*BIM Manager*”, Dep.ABC, Consorzio Universitario CIS-E, Scuola AIUC; (2017/--)
18. CO-DIRECTOR, Higher Education Course, Università Cattolica del Sacro Cuore / TeMA-Milan Chamber of Commerce, “*Expert Real Estate Evaluator*”; (2016/2019)
19. DIRECTOR “*Technical Consultant Review*”, Maggioli Editore – Rimini - ISSN: 0394-6916; (2009/2011)
20. MEMBER Editorial Committee “*INNOVANCE*” series of book, EdilStampa, ISBN: 9788878641204; (2017/--)
21. MEMBER Advisory Board, “*Dn Building Information Modeling, Data & Semantics*”, DEI Tipografia del Genio Civile, ISSN 26108755; (2017/--)
22. MEMBER Editorial Advisory Board, “*Impact of Industry 4.0 on Architecture and Cultural Heritage*”, IGI Global, USA, 2019; ISBN13: 9781799812340; (2019/--)
23. CHIEF ADVISOR start-up *Consorzio ANCEnergia*, Consortium for Energy Efficiency of Assimpredil-ANCE, su ricerca IEFE - Università Bocconi; (2007)
24. CHARTERED MEMBER, RICS (Royal Institution of Chartered Surveyor); (2006/2009)
25. MEMBER Board of Directors: *Istituto Industriale Edile Carlo Bazzi*, appointment City of Milan / Architects Register of Milan; (2017/--)
26. MEMBER Board of Directors: *CCLM (Center of Construction Law & Management)*, Politecnico di Milano, Università degli Studi di Brescia, Università degli Studi di Milano, (2020/--)

Conferences (essentials):

27. SPEAKER international conference BIM in planning and building permit processes: “*Prototype of BIM digital Pre-Checking for building Permits release: Graphic, documentary and legal coherence*” - BSI (Building Smart International), Barcelona (04/05-04-2017)
28. CO-AUTHOR international conference paper, Dematerialisation de la commande publique, controles regolamentaires et exploitation des donnees: “*Optimiser les achats grace au BIM; example de la Ville de Milan*”, BIM WORLD 2018, Parigi; (29-03-2018)
29. CHAIRMAN standard UNI 11337:2017 “*Digital management of construction information processes*” – parti 1, 2, 3, 4, 5, 6; (2009/2017)
30. ORGANIZATION International meeting CEN/TC442, Building Information Modelling (BIM), WG1 Terminology, WG2 Exchange information, WG3 Information Delivery Specification, WG4 Support Data Dictionaries; (06/07-03-2018)
31. ORGANIZATION International meeting ISO/TC59/SC13/WG13, standard ISO 19650, “*Organization of information about construction works - Information management using building information modelling*”; (23/24-02-2015)
32. SPEAKER international meeting ISO/TC59/SC13/WG13, Implementation of collaborative working over the asset lifecycle, “*Standard UNI 11337 parts 4-5*”, DIN Berlin; (18/19-08-2014)
33. SPEAKER international meeting ISO/TC59/SC13/WG13, Implementation of collaborative working over the asset lifecycle, “*Standard UNI 11337 parts 1-3*”, BSI Londra; (11-06-2014)

Prize:

34. PAPER AWARD Winner (2019), 14th International OTMC Conference & 7th IPMA Research Conference, Senior Researcher category: "*BIM Implementation in Public Infrastructure: CDE Design for Italian Airport Systems*", Zagreb (M. Mancini, M. Rotelli, A. Pavan; p. 422-442, ISBN:978-953-7686-08-6)
35. AWARD Paolo Scolari (2017), "*in recognition of the role played in the development of technical standardization and its influence on the economic and social life of the Italian System*"; UNI Italian standardisation body
36. HONOURABLE MENTION (2017), *The American Architecture Prize, Architectural Design* (2017) - Section: Restoration & Renovation; Maggiolina residential design, Milan

Work experience (2006 – 2018):

37. FOUNDER and partner of BAEC – *Building Appraisal & Estimating Consulting* (Milan, Italy) - Economics in construction, Appraisal and Estimating consulting, Litigations, BIM Management and design - <http://www.baec.it/>

Publications (essentials):

38. *BIM based collaborative building process management* – 2019 - B. Daniotti, A. Pavan, S. Lupica Spagnolo, V. Caffi, D. Pasini, C. Mirarchi (2019). p. 1-181, Springer, ISBN: 978-3-030-32888-7, doi: 10.1007/978-3-030-32889-4 - <https://www.springer.com/gp/book/9783030328887>
39. *Analysis of Existing Open Standard Framework and Ontologies in the Construction Sector for the Development of Inference Engines* – 2019 - B. Di Martino, C. Mirarchi, S. Ciuffreda, A. Pavan (2020). In: Complex, [...] s (CISIS-2019). Advances In Intelligent Systems And Computing, vol. 993, p. 837-846, ISBN: 9783030223540, ISSN: 2194-5357, Sydney, Australia, doi: 10.1007/978-3-030-22354-0_77
40. *Artificial Intelligence and Semantic Web Technologies to Empower Interoperability and Data Usage* – 2019 - C. Mirarchi, A. Pavan, B. Di Martino, A. Esposito (2019). In: C. Bolognesi C. Sant'Agata, mpact of Industry 4.0 on Architecture and Cultural Heritage. p. 306-329, IGI Global, ISBN: 9781799812340, doi: 10.4018/978-1-7998-1234-0.ch013
41. *Building Information Models are Dirty* – 2019 - C. Mirarchi, A. Pavan (2019). In: Proceedings of the 2019 European Conference on Computing in Construction. p. 131-141, ISBN: 9781910963371, Chania, Crete, Greece, doi: 10.35490/EC3.2019.180
42. *Supporting Facility Management Processes through End-Users' Integration and Coordinated BIM-GIS Technologies.* – 2018 - Claudio Mirarchi, Alberto Pavan, Francesco De Marco, Xiangyu Wang, Yongze Song (2018). ISPRS International journal of geo-information, vol. 7, p. 1-19, ISSN: 2220-9964, doi: 10.3390/ijgi7050191
43. *BIM Electric Objects Plug-in for Industry 4.0* – 2020 - A. Pavan, A. Cunico, C. Mirarchi, D. Mocellin, E. Sattanino, V. Napoleone (2020).. In: B. Daniotti M. Gianinetto S. Della Torre, Digital Transformation of the Design, Construction and Management Processes of the Built Environment. p. 73-83, Springer, ISBN: 978-3-030-33569-4, doi: 10.1007/978-3-030-33570-0
44. *Decision-Making BIM Platform for Chemical Building Products.* – 2020 - G. Gazzaniga, L. Coppola, B. Daniotti, C. Mirarchi, A. Pavan, V. Savoia (2020). In: B. Daniotti M. Gianinetto S. Della Torre, Digital Transformation of the Design, Construction and Management Processes of the Built Environment. p. 61-71, Springer, ISBN: 978-3-030-33569-4, doi: 10.1007/978-3-030-33570-0

Complete list in:

<https://re.public.polimi.it/cris/rp/rp20220?start=80&sortBy=2&order=DESC&type=all#.YifxJAzZqM>

PhD Thesis supervisor (essentials):

45. *Knowledge network for innovation of construction sector: Increasing efficiency through process digitisation of the entire chain* - (2019)
46. *Construction sector (AEC) Digitalization - The case of little and micro companies* - (2020)
47. *Information Management for Construction Projects 4.0* - (2021)
48. *Digital information merging in the construction supply chain towards a 'construction industry 4.0'* - (2021)

Master's degree Thesis supervisor (essentials):

49. *Planning and control in construction: analysis and integrations of three methodological approaches. Location-Based Management System (LBMS), Last Planner System (LPS) and Critical Path Method (CPM)* - 2020
50. *A proposal on LOIN definition of BIM models, aligned with project management tools, for non-construction related companies* - (with reviewer) - 2020
51. *Agile Project Management and Its Application in the Construction Industry* - (with reviewer) - 2020
52. *Development of an information method and system for the management of maintenance data in application to MEP of Villa Alari in Cernusco sul Naviglio* - (with reviewer) - 2019
53. *The construction process in a contract BIM* - 2019
54. *Implementation of cost control and construction management activities through BIM methodologies: to achieve interoperability between management software in 4D e 5D dimension* - (with reviewer) - 2019
55. *Analysis and reorganization of project flows for the correct management of contract* - (with reviewer) - 2019
56. *Challenges in the implementation of Building Information Modeling (BIM) in Colombian Small and Medium Enterprises (SMEs): the case study of the recreational center of Apulo, Colombia* - 2019
57. *Verification and validation of information models in the final design phase: Development of a verification flow suitable for the validation of a BIM model by the clients and the issue of enabling qualifications by the competent administrations* - (with reviewer) - 2019
58. *A comparative analysis of common data environments focusing on the use of Aconex* - 2019
59. *Analysis and reorganization of project flows for the correct management of the job* - (with reviewer) - 2019
60. *Data sharing information systems: from the common data environment (CDE) to the data base management system (DBMS). Fallout for the construction sector* - (with reviewer) - 2019
61. *BIM in Project Management: analysis and comparison of Italy / Germany, optimization of the preliminary phase in the case of Deutsche Bahn* - (with reviewer) - 2019
62. *The adoption of the IFC for the life cycle of the work: analysis of the information flow and case studies for its application in the real estate management phase* - (with reviewer) - 2019

63. *Exchange of information in building processes: optimization of communication between companies and suppliers - definition of the analysis tool - (with reviewer) - 2018*
64. *Digitized information flows in the building process through the use of a data sharing environment CDE - (with reviewer) - 2018*
65. *The Digital Building File. BIM methodologies as a strategic tool for the implementation of collaborative Asset Management platforms - (with reviewer) - 2018*
66. *The management of data and processes of the manufacturing industry: a methodology and a resource for the construction supply chain - (with reviewer) - 2018*
67. *SMART BIM: Data platforms for efficient information management of the building process - (with reviewer) - 2018*
68. *Developing a compute and metadata item generator from objects in a BIM model - (with reviewer) - 2018*

Milan, 30.09.2021

(Alberto Pavan)

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CV ai fini della pubblicazione in ottemperanza all'art.15 del D.Lgs. 33/2013