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Drawing, Design and Building Information Modelling (BIM): Embedding Advanced Digital Tools in the Academy Programs for Building Engineers and Architects

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Abstract : This paper deals with the integration of advanced digital design and modelling tools and methodologies, known as Building Information Modelling, into the traditional Academy educational programs for building engineers and architects. Nowadays, the challenge the Academy has to face is to present the new tools and their features to the pupils, making sure they acquire the proper skills in order to leverage the potential they offer also for the other courses embedded in the educational curriculum. The syllabus here presented refers to the "Drawing for building engineering", "2D and 3D laboratory" and "3D modelling" curricula of the MSc in Building Engineering of the Politecnico di Milano. Such topics, included since the first year in the MSc program, are fundamental to give the students the instruments to master the complexity of an architectural or building engineering project with digital tools, so as to represent it in its various forms.

Keywords: BIM, BIM curricula, computational design, digital modelling

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