



## **5<sup>th</sup> EduBIM : journées de l'enseignement et de la recherche autour du BIM et de la Maquette Numérique**

**Call for papers – Research Workshop EDUBIM – 15th mai 2019 - ENS Paris-Saclay**

The arrival of BIM in the field of construction profoundly modifies the design process, implementation, operation and maintenance of buildings and infrastructures. It works on all construction processes modifying the activity, the management, sector companies, their partnerships and also contracts. We ask as a postulate that this arrival of BIM is not simply important development as it changes with versions of complicated software channels but it involves a profound change in processes. Therefore, the arrival of BIM in the construction industry challenges and involves several scientific disciplines and revolutionizes, civil engineering disciplines, urban engineering, urban planning and architecture, geospatial information.

This testing of several disciplines in a new context, requires the construction of a scientific community that addresses these problems facing these situations and be able to query but also contribute to changing disciplines. This is the objective of this research workshop. This is a testing in a new context that requires a true conceptual work, helping to advance these disciplines. Contributing works are expected in several areas. Collaborative work is the base of BIM, on project but also in knowledge elaboration!

These conceptual works will be at the heart of disciplines but will increasingly be mostly discussed multidisciplinary and systemic way. Indeed the multidisciplinary approach will take into account a complex professional environment and will construct theoretical proposals likely to intervene in the discussion of each of the scientific disciplines. Processes such as those of cooperation and innovation, especially of disruptive innovation, such are hardly treated appropriately by a single discipline. Similarly, business processes, and modeling of new business processes are both relevant for architectural, civil and urban engineering, information systems, management science and new numerical services.

The social and legal sciences cannot be absent from this multidisciplinary approach. Primarily, science organizations and management can largely be put to use through the issues of the management of project teams, sites. Through concepts like that one of PLM for very specific products BTP, changing business models including the changing roles from design to construction and operation of the works and their dismantling. Finally, economic and legal conditions, such as the conditions of design and built and developments legal tools and coaching sector economic conditions tools, like national public contracts and laws deserve to be studied. The sociology of organizations can also help with situated studies.

Expected **papers** and **literature review** will cover all areas mentioned including:

- The modes of cooperation between software (Interoperability, standardization and standards) [IFC, CityGML, CoBIE, ...]
- The integration of sustainable development objectives: social and managerial terms of phases of destruction and recycling of buildings, roads and structures.
- The development of the businesses from the perspective of sociology of trades
- Developing ontology on the domain.
- Teaching new tools and their usage contexts
- Teaching methods for BIM collaboration
- Creativity and BIM: from first ideas to model
- GIS links / BIM tools and all the issues of spatial situations
- The conditions and processes of innovation in the context defined by BIM
- Lean management, PLM
- Modeling BIM objects
- Modeling of new business processes
- Processes and BIM technologies
- openBIM
- Big Data
- The development of skills
- Project driving including a BIM approach
- Requirement management, System engineering

Expected papers shall be 12 pages, up to 15 pages, references included. French or English can be used, abstract in English and French. Digital proceedings will be published and deposited on the MINnD project website. Papers will be reviewed, following academic way, by two scientists in the field.

**Deadline for full papers: 14<sup>th</sup> January 2019 – Repository:**

**Accepted papers with or without revision will be announced: 5<sup>th</sup> March 2019**

Last year the proceedings has been published at Eyrolles Editions under the title “A la pointe du BIM : ingénierie et architecture, enseignement et recherché.” This year, we are working to publish it again.

Scientific committee: (*being finalized*)

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Website:

<https://edubim2019.sciencesconf.org/>

