Interdisciplinary PhD Scholarship in
Architecture, Built environment and Construction Engineering
in collaboration with
Information Technology
on

FORESIGHT FOR SUSTAINABLE SMARTER BUILT ENVIRONMENTS

In recent decades we are experiencing an implicit transition towards more digitally-enabled buildings, cities and communities, with a view to smarter and more sustainable eco-systems in which to live. When we look at what is identified in the literature as a 'smart city framework', we find a dominant concept of integrating ICT solutions, sensors and other physical devices, data and human insights to improve building and city services and connect them to citizens. The current pandemic has contributed to the rapid acceleration of this process but, at the same time, has led to the rise of new needs and priorities that may lead to a significant rethinking of the ways and spaces where people will live, work and move in their daily lives, with a consequent reconsideration of the role of technology.

Established trends in technological development may in fact be suspended by the emergence and convergence of alternative scenarios, or even diverted towards new horizons for newly emerging needs.
In the research community, especially when dealing with issues having a long-term impact, there is a growing consensus and attention towards the need of recognizing possible future challenges well in advance, to be able to have the most appropriate responses. In this context, the proposed research aims at exploring the different plausible futures for a human-centered smart built environment, scanning the horizon to envision possible scenarios in the broader perspective of future of smart cities and communities. Such a foresight process will allow to identify future opportunities, challenges and criticalities that may emerge, as the ICT technologies meet the built environment.
The fundamental method underlying the proposed research is foresight, a systematic process of analysis and construction of visions of the future, a multidisciplinary activity in its premises in order to be effective. In particular, the foresight methods and tools applied will be participatory and open, involving participants and collaborators from different disciplines and areas of expertise; departments ABC and DEIB are two leading actors (given the specific context) but extended to a wider community. This will allow the inclusion of the different definitions and narratives of the smart buildings and smart cities concepts that are often organized by industry sectors: ICT, electronics, mobility, governance and construction.

The PhD Candidate will be trained in the adoption of Systems Thinking and Futures Thinking approaches for identifying the long-term issues and challenges shaping the future development of a human-centered smart built environment and to exploring their implications for research supporting sustainability targets in the horizon 2050.

Research directors:
Giuliana **Iannaccone**
Cristiana **Bolchini**

The program lasts 3 years.
Application deadline: 2pm on 20 May 2021 (CEST- Central European Summer Time).
Link to apply: https://lnkd.in/d9W289s

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