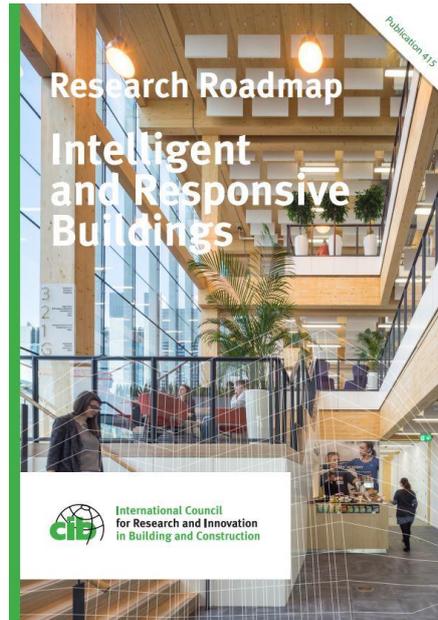




April 2019

CIB Workshop Announcement Research Roadmap Intelligent and Responsive Buildings



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This is the announcement of a Workshop that will present the findings for the recent published Roadmap by the CIB W098 Commission – Intelligent and Responsive Buildings, in association with the CIBSE Intelligent Buildings Group.

This Workshop will be held during the WBC19 in Hong Kong. The final date and time of this workshop will be known at later time, please check the program for more information, <http://www.wbc2019.hk/>.

Intelligent Buildings have to fulfil 3 main challenges:

- to be sustainable;
- to use technology effectively;
- to ensure they are buildings designed with environments in which people thrive and flourish.

The key criteria for achieving good quality intelligent buildings are:

- Satisfying client and supply stakeholder objectives and needs;
- Meeting social and environmental needs
- Recognition of available resources.

The Roadmap has distinctive themes which set the pathway for the future.

LESSONS FROM HISTORY

The present evolves from the past and points ways to the future. History shows many effective ways of environmental control which must not be forgotten.

LESSONS FROM NATURE

Biomimetic architecture uses Nature as the inspiration because it is economic in use of energy and materials. Biophilic design helps to achieve calming environments for thinking and creativity.

BUILDINGS FOR PEOPLE

Our designs affect people's physical, mental and social wellbeing. The environment together with other factors is a significant cause of absenteeism and presenteeism which is very costly.

ROLE OF TECHNOLOGY

The rapid pace of technology and the opportunities it offers cannot be ignored. However there are downsides too . Buildings need to focus on simplicity not complexity.



The Fourth Revolution is underway and robotics; quantum computing; internet of things; smart materials; nanotechnology; 3D/4D printing; artificial intelligence are some of the technologies which are already impacting architecture. Intelligent buildings need to be adaptable to change to use the opportunities offered by these technologies for new and old buildings.

SUSTAINABLE ARCHITECTURE

Effective and efficient use of resources like energy, water and waste is vital so CO2 emissions and pollution are low or preferably zero. Low or neutral carbon buildings can be improved so we see the emergence of carbon positive buildings. Buildings can become energy generators.

DECISION MAKING

At every stage in planning, design, construction, commissioning and post occupancy evaluation decisions have to be made which offer continuity from one stage to the next. There has to be a vision. There has to be connectivity between all the stakeholders. Long term thinking is essential with an emphasis on value not short term costs.

POST OCCUPANCY EVALUATION OF INTELLIGENT BUILDINGS

We need to share successes as well as failures so we do not keep repeating the same mistakes. Let us be an open forum to learning from each other.

GENERAL

The creation of shared visions, effective teams, clear structures and robust processes ensures that the intelligent building being constructed will demonstrate the purpose for which it was conceived. Times are certainly changing so there needs to be an outlook by the project team which is long term and not just short-term. In a way this Roadmap is about change as reflected in society besides the advancements in technology that we create.

The Workshop will summarise these issues and is welcomes all to come and participate.

Coordinators



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Presenters

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Availability

The Research Roadmap is electronically available for free from the CIB website [here](#).

The publication is written in association with CIBSE Intelligent Buildings Group, more information about CIBSE is to be obtained [here](#).

Information

You can find more information on the activities of the CIB Commission W098 – Intelligent and Responsive Buildings [here](#).

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