

14
2017

NOON TALK @ DIATI

**Mercoledì 3 MAGGIO 2017
ore 13.00**

**Politecnico di Torino
Sala Riunioni 1° piano,
DIATI ingresso 3**

Maurizio Cellura

Full professor of Building Physics and Energy Systems at the University of Palermo

“The role of life cycle assessment in the decarbonization of the building sector”

Prof. **Gianandrea Blengini** moderates the discussion



**POLITECNICO
DI TORINO**

Dipartimento di Ingegneria
dell'Ambiente, del Territorio
e delle Infrastrutture



ABSTRACT

The building sector is one of the most relevant sectors in terms of generation of wealth and occupation, but it is also responsible of relevant consumption of natural resources and generation of environmental impacts. In the European Union, the building sector is responsible of around 50 to 60% of the use of natural resources, and these percentages will not decrease, without the development of strategies oriented to the reduction of the use of fossil fuels and to the increase in the use of renewable energy technologies.

In order to improve the eco-profile of the building sector, the reduction of the use of resources and the minimization of environmental impacts have become in the last years one of the main objectives to achieve in the design of sustainable buildings. In particular, the application of the Life Cycle Thinking, through the Life Cycle Assessment (LCA) approach is needed for a concrete decarbonization and application of the circular economy principles to the building sector.

The application of the LCA methodology to the building sector can be a useful tool to assess, according to a detailed and reliable approach, the eco-profile of buildings and construction materials.

The seminar will discuss these topics on both a methodological and practical approach.

BIOGRAPHY

Full professor of Building physics and energy systems since 2011 at the University of Palermo, his scientific activity is mainly oriented towards energy and environmental topics, with focus on energy efficiency in buildings, technologies powered by renewable energy and decarbonization strategies of systems and processes. His experience on international level on building science and LCA is clarified by the coordination of several national and International research projects on energy-environmental topics, his teaching experiences in international courses and seminars and by the participation to many International Energy Agency work groups: task 27 (Performance of Solar Facade Components), 38 (Solar air-conditioning and refrigeration), 48 (Quality Assurance & Support Measures for Solar Cooling Systems) and 40 (Towards Solar net zero energy buildings), Annex 57 (Evaluation of embodied energy and CO_{2eq} for building construction) and 62 (Ventilative cooling).

He is currently head of the Energy and Information Technologies Ph.D. courses at the University of Palermo.

He is also author of more than 260 in the fields of LCA, multicriteria decision making, industrial ecology, energy efficiency in buildings and building simulation.

He has worked in the field of LCA applied to buildings in the last three decades and has recently become President of the Italian Life Cycle Assessment network.

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Please bring
your own mug.
Coffee and tea
will be
provided
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Save the date for our next speaker-event, on June 7 2017, at 13:00.