



## **Masterclasses of CERTES Laboratory**

## Introduction of the Latest Standards, Technologies and Cases of Energy Efficiency in Building and Green Building in China

Form 23 to 26 September 2019

14h - 17h30 PM.

## By Prof. Borong LIN, Tsinghua University

This lecture would be consisted of 4 parts with total 12 hours.

- P1. Introduction of the current development of energy efficiency in building and green building in China. The latest data of energy, water, material consumption in buildings and the relative standards for design or operation stages would be introduced with a comparison on that of developed countries. The future roadmap of energy efficiency in building for China also be introduced with several scenario analyses.
- **P2.** New technology for green building design with case studies. Decision making in early architectural design stages is crucial as well as difficult. Needs and perceptions from stakeholders and regulations are difficult to predict and share among the architectural and engineer design team at the early stage. It is then difficult to understand which design concepts are the most valuable to explore. This lecture builds upon performance-oriented design methodologies and develops a tool integrated with SktechUp (MOOSAS) and a three-step methodology and to maximize energy efficiency and IEQ creation in early design stages for green buildings with several cases.
- **P3.** Optimizing the IEQ and EE performance of green buildings by sensor monitoring and datamining. This lecture would introduce the art of state of using new IEQ sensor to collect the IEQ parameters, occupant satisfaction and energy consumption. And how to improve the environmental efficiency by data-mining technologies.
- **P4.** New technologies and case study for nearly zero energy buildings, healthy building and district heating in China. This lecture would introduce the art of state of nearly zero energy buildings, healthy building and district heating in China with innovative technologies or demo buildings. Some key indexes comparison and experience and lesson would be also introduced with case studies.

## **Contacts:**

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