



Short course on

Building Energy Simulation for ECBC 2017

Feb 12, 2018 to Feb 16, 2018

International Institute of Information Technology- Hyderabad
Gachibowli, Hyderabad-500032

About the course

This course addresses the skills and knowledge requirements for carrying out energy simulations for ECBC. Since ECBC is mandatory for commercial buildings, reliance on simulation tools has increased in the recent past. The course will cover intermediate level topics such as modelling chilled water and VRF systems, introduction to CFD and natural ventilation. It will consist of several tutorials and project to show compliance with ECBC 2017. There will be an exam on the fourth day. The course will be handled by academicians and practitioners.

Who should attend?

Architects , Civil Engineers, HVAC and Electrical consultants, Energy Auditors, Green Building facilitators/ consultants, ECBC Third Party Assessors, ECBC Master Trainers, ECBC experts etc.,

Prerequisites

This is not an introductory course. The participants are expected to have basic knowledge of:

- Building Physics
- Whole building energy simulation (at least one project for ECBC/ASHRAE).
- Familiarity with building services especially Heating Ventilation and Air Conditioning (HVAC), Interior illumination
- Building energy codes such as ASHRAE 90.1, ECBC

Topics to be covered

- Introduction to ECBC 2017
- Introduction to Design Builder
- Geometry and importing DXF
- Materials and construction
- Opening and Shading
- Analysis of simulation results
- Daylighting simulation for ECBC
- Lighting and controls
- Cooling Load Estimation
- Introduction to Central HVAC system
- Central HVAC system - Water side
- Central HVAC system - Air side
- VRV modelling
- CFD for Natural Ventilation
- CFD for HVAC
- Natural Ventilation, Thermal storage and Renewable Energy systems

Laptop requirements

Laptop with MS Windows operating system and a mouse.

Minimum 4 GB RAM(Recommended 8 GB) and 2 GB free disk space(preferably SSD hard disk). 2.4 GHz dual core processor or faster. Higher the configuration, the faster and better will be the software performance.

Course timings: 08:30-18:00

Day 1 : 09:00-18:00 Day 4 : 08:30-19:30

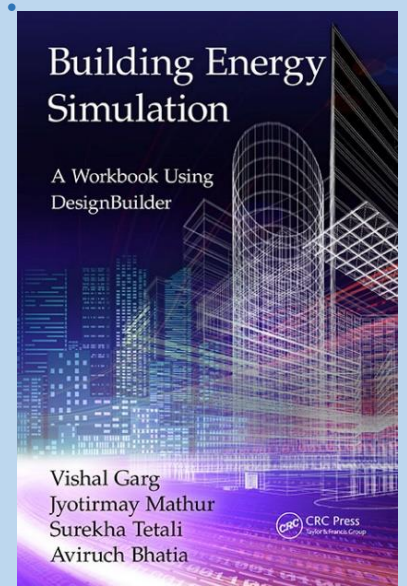
Day 2 : 08:30-18:00 Day 5 : 08:30-17:30

Day 3 : 08:30-18:00

What is included in the course?

- Book on Building energy Simulation - <http://bit.do/simulationbook>
- Soft copy of ECBC 2017
- Lunch+ Tea/Coffee during breaks
- 30 days free evaluation license of Design Builder software

Limited Number of Seats !!!



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Faculty

Dr. Vishal Garg is Associate Professor and Head of the Center for IT in Building Science at IIIT Hyderabad. His current research interests are in the areas of building energy simulation, building automation and cool roofs. He holds a B.Tech. (Hons.) degree in



Civil Engineering from MBM, Jodhpur and a Ph.D. from IIT Delhi. He is actively involved with green building movement, development of eTools for advancing energy efficiency in buildings, energy efficiency building code and its implementation. He was the founding president for Indian chapter of International Building Performance Simulation Association (IBPSA) and chaired the organizing committee of international conference for Building Simulation-2015.

Mr. S Srinivas S, Deputy Executive Director at the CII heads the Green Building division. He has work experience spanning over 33 years. A Mechanical Engineer with post-graduation in Energy management, he has varied experience



across multiple functions of Production, Maintenance, Projects, Consultancy and Training in the fields of energy efficiency and green buildings. He is an IGBC Accredited Professional. He has facilitated more than 300 buildings in achieving the Green Building rating and is now working on sustainable practices for the built environment. He is the Key member in establishing the Green Building Services in IGBC and was instrumental in developing 22 green building rating programmes of the Indian Green Building Council.

Mr. PC Thomas specialises in Integrated Building Design; using simulation tools to assist in the design and delivery of sustainable buildings, in particular, in predicting the performance of the mechanical services. He has a



Masters degree in Mechanical Engineering, 20 years of consulting, research and teaching experience in Sustainable Buildings, Building Energy Simulation, Energy Auditing, Energy Efficiency in Buildings, and Solar Energy. PC enjoys working in a team environment to help design and retrofit buildings to deliver sustainable, high performance buildings. He is a founding Director of Team Catalyst Proprietary Limited, with the motto, "Driving Sustainability Through Teamwork". PC Thomas is currently Adjunct Associate Prof, Sydney School of Architecture, Design and Planning at The University of Sydney where he lectures to post graduate students.

Dr.-Ing. Jyotirmay Mathur is a Professor of Mechanical Engineering and the Founding Head of the Centre for Energy and Environment at MNIT, Jaipur. He has done post graduation in Energy Studies from IIT Delhi, and doctorate in energy systems from University of Essen, Germany.



Dr. Mathur has published 65 research papers in refereed international journals and has presented more than 100 papers and talks at international seminars and conference, besides writing five books. Dr. Mathur works in the field of energy modelling, codes and standards, energy conservation in buildings, passive cooling, adaptive thermal comfort and building integrated photovoltaic systems.

Mr. Abdullah Nisar Siddiqui is currently associated with United Nations Development Programme (UNDP) as Project Manager for the UNDP-GEF-BEE project on "Energy Efficiency in Commercial Buildings", based at Bureau



of Energy Efficiency, Ministry of Power. He also serves as a visiting faculty at Faculty of Architecture and Ekistics, Jamia Millia Islamia (Central University), New Delhi. Abdullah has dual Master degrees in Architecture (M.Arch) Building Services and Recreational Architecture; and a Bachelor degree in Architecture (B.Arch) from Jamia Millia Islamia, New Delhi. He is an ECBC Master Trainer and also certified GRIHA Evaluator & Trainer, IGBC AP and LEED Green Associate – USGBC.

Course Fee (Including GST)

	Early (Before 5th Feb,2018)	Regular
Non-Member	Rs.40,000/-	Rs.44,000/-
Member*	Rs.36,000/-	Rs.40,000/-

*Member of IGBC, IGBC AP, IBPSA India

Course co-ordinators:

Dr.Vishal Garg & Prof. Jyotirmay Mathur

To register, click- <https://goo.gl/mzMcjU>