

# Sustainable Design & Construction for Climatic Uncertainty & Extremes

15 - 19 July 2020

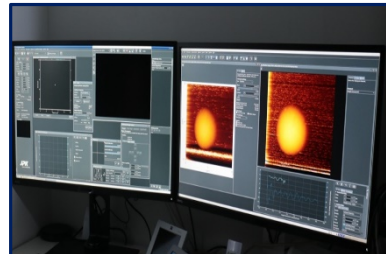
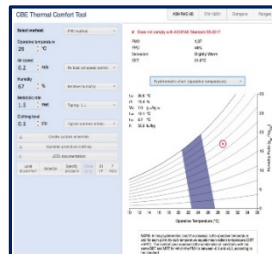
<b>Modules</b>	<b>Introduction &amp; Background</b> : July 15 <b>Building Envelope &amp; Systems</b> : July 16 <b>Building Site and Water Management</b> : July 17 <b>Health and Well Being</b> : July 18 <b>Synergy - Integrating Technologies &amp; Community Development</b> : July 19 <b>Number of participants for the course will be limited to fifty.</b>
<b>You Should Attend If...</b>	<ul style="list-style-type: none"> <li>▪ You are a Professional working in the field of Architecture, Engineering or Environment / Resource Management</li> <li>▪ You are a student (B.Sc. B. Tech /M. Sc /M. Tech /B.Arch/ M. Arch /PhD) or faculty in the field of Architecture, Engineering, Environment, Energy or allied field</li> <li>▪ You are a stakeholder in the Building Industry</li> </ul>
<b>Fees</b>	The participation fees for taking the course is as follows: <b>Participants from abroad : US \$500</b> <b>Industry/ Research Organizations: 30000</b> <b>Academic Institutions : 10000</b> The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr. free internet facility. The participants will be provided with accommodation on payment basis.

## Overview

Climatic uncertainty and the ever more common extremes call for a design and construction paradigm shift. This course aims to expose students to the domain of green sustainable planning, design and construction in their complexity, especially in hot arid environments expanding due to desertification, but also in other environments where climatic extremes become all the more common. Students will learn basic concepts, and acquire working tools. The course aims at exposing students to principles and practices of green sustainable planning and design in a critical manner.

Discussion topics range from standards and assessment tools, through people-environment interrelations, to energy and other resources related issues (Embodied Energy - EE, Operational Energy - OE, Life Cycle Energy Analysis - LCEA, and Comprehensive Design and Management). Passive and low energy building design strategies and systems will be demonstrated through actual realized projects of different building types, including high-rise ones. Zero and nearly-Zero Energy Buildings (ZEBs and nZEBs) as well as Zero Energy Communities (ZECs) and the integration of green technologies aimed at synergetic added values will be discussed critically.

Course participants will learn these topics through lectures, discussions and tutorials. Also, case studies and assignments will be developed to encourage a research-based approach among the participants.



# The Faculty



**Dr. Isaac A. Meir** is an Architect, Town Planner and faculty member of the departments of Structural Engineering, and Energy Engineering, Faculty of Engineering Sciences, BGU. He is Associate Professor Chair, Desert Architecture & Urban Planning (DAUP) & the Bona Terra Dept. of Man in the Desert (MID) (2005-2010). Published over 180 papers, reports, chapters in books and collective volumes.



**Dr. Roshni Udyavar Yehuda** is President, Institute of Environmental Architecture and Research (IEAR), Mumbai, Director, Roshni Udyavar & Associates, and Advisor, Environment & Sustainability, Science & Technology Park, Pune. She is a Bureau of Energy Efficiency (BEE) certified Master Trainer and empanelled energy efficiency expert professional.



**Prof. R. K. Pandit** is the Director of the Madhav Institute of Technology & Science, Gwalior, India.

Global Initiative of Academic Networks (GIAN) is convened under the aegis of MHRD, Govt. of India. It ensures to garner best international experiences into our systems of education. The course aims to improve professional skills for the design and development course aims at exposing students to principles and practices of green sustainable planning and design in a critical manner, to stress the importance of integrative design involving all disciplines (planner, architect, structural engineer, HVAC lighting water and sewage consultants, transportation consultant etc.) from the very early stages of conceptual design, to provide exposure to practical aspects of sustainable design through global and local case studies, to enhance the knowledge and skills of participants through introduction to various assessment tools related to sustainable design and construction.