

AICTE QIP Sponsored One week Online Faculty Development Programme

On

ENERGY EFFICIENT AND INNOVATIVE BUILDING CONSTRUCTION PRACTICES

From 23-28 August, 2021

Sponsored by



Organized by



National Institute of Technical Teachers Training and Research
Ministry of Education, Govt. of India
Sector-26, Chandigarh-160019

INTRODUCTION AND OBJECTIVES

The importance of energy efficient and green buildings has assumed great urgency today. In light of fast depleting energy resources, energy scarcity and increasing environmental pollution, innovative ways to cut down energy consumption are necessary. The construction industry is one of the largest energy consuming sectors. In modern buildings significant amount of energy is also consumed to keep the building environment comfortable. Estimates suggest that about 20-25 percent of the total energy demand is due to manufacturing materials required in the building sector, while another 15 percent goes into the running needs of the building like lighting, air-conditioning, room heating and ventilation etc. Increased development of housing and commercial buildings has imposed immense pressure on our dwindling energy sources. The availability of energy is limited and known resources of energy are exhausting fast. Therefore, energy efficiency is assuming importance in different sectors. In view of the global energy crisis and increasing energy demand which is expected to continue along with possible end-use restrictions, energy efficiency and energy management is essentially required.

COURSE CONTENTS

- Optimization of Envelope for Building Energy Efficiency & Thermal comfort
- Energy Efficient and Innovative Construction Practices
- Supplementary Cementitious Materials: Microstructure Investigations
- Behaviour of Precast Energy Efficient System
- Energy Efficient Earthquake Resistant Technologies
- Achieving energy in buildings using Efficient Solar PV systems
- Indoor air pollution and Energy efficiency of building
- Potential Use of Pine Needles as Fiber Reinforcement For Concrete
- Advances in Water Proofing and Thermal Insulation Materials
- Ultra high strength concrete, its production characterisation and uses
- 3-S Prefabricated construction- An Innovative and energy efficient building approach
- Zero Energy Buildings
- Practical Aspects and Innovations in Mud Construction

METHODOLOGY

This one-week programme will judiciously utilize various instructional methods by integrating theory classes, audio-visual presentations and educational video films shows. In order to make the programme participatory, group discussions and project formulations exercises will also be conducted. Besides the institute faculty, experts will be invited from IIT's and Industry working on green, energy efficient and innovative building practices. The Programme will be conducted through online mode.

TARGET GROUP

Faculty members of all Engineering disciplines, Architectural, Management and Humanities streams working in an AICTE approved engineering college/institute can participate in this programme. Researchers and field engineers can also join the programme by registering themselves on Link given in the brochure or at NITTTR website.

REGISTRATION

There is no fee for the course

Participants need to register themselves latest by 17th August 2021 by providing their official ID card/sponsorship letter in the form : <https://forms.gle/rWa8puszNpzs5igv5> For any query, participants can contact the coordinators.

CERTIFICATION:

A online test will be conducted at the end of the program. Certificates will be issued to those participants who score minimum 50% marks in the test with minimum 80 % attendance in the programme.

ABOUT NITTTR, CHANDIGARH

Since its inception in 1967, NITTTR (formerly TTTI) Chandigarh has made rapid strides in the areas of engineering and technology and emerging areas like computer, educational technology, entrepreneurship development, rural development, industry-institute interaction and educational management. Presently, the institute conducts more than 400 short-term training programmes annually for polytechnics and engineering colleges teachers, professionals and managers of industries. The institute also conducts a large number of AICTE sponsored Summer and Winter Schools every year. The institute offers eight postgraduate programmes in engineering and engineering education through regular and modular modes. In addition to education and training programmes, the institute renders extension services to Polytechnics, undertakes research and development projects and develops print and non-print instructional material.

CIVIL ENGINEERING DEPARTMENT

Civil Engineering Department conducts training programs in the upcoming areas of Civil Engineering and other relevant technical areas. Department is having a team of experienced faculty and backup of supporting staff. Print and non-print instructional material produced by the department is internationally acclaimed. The department is equipped with state of art laboratories and offers research-based consultancy and testing facilities to various state and central government organizations.

PATRON



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COORDINATORS



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Experts for the Programme



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Dr. Rajneesh, Ex-Professor, IIT Mandi



Dr. S. D Naskar, Vice-President, B.G Shirke Construction Pvt. Ltd.



Ar. Sangeet Sharma, Practicing Architect, A-3 Foundation, Chandigarh



Er. Tirtha Pratin Banerjee, General Manager, Pidotite Pvt Ltd.



Dr. Balkar Singh, Ex- Jt. Director, PEDA, Chandigarh



Ar. Savneet Kaur, Managing Director, Imarat Foundation, Karnal