

Online International STC under TEQIP-III

Sustainable, Resilient and Smart Built Infrastructure in Developing Countries

October 20-24, 2020

Organized by

Dr B R Ambedkar National Institute of Technology, Jalandhar - 144011, Punjab

COORDINATORS



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FOREIGN TEACHING FACULTY



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REGISTRATION DETAILS

Registration Link:

https://www.nitj.ac.in/events_registration/stc_civil/login

Registration Fee

Indian participants: INR 1000/-

Foreign participants: US\$100/-

NITJ Faculty: Free Registration

CONVENOR



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ABOUT THE INSTITUTE

Dr B R Ambedkar National Institute of Technology (NIT), Jalandhar was established in the year 1987 as Regional Engineering College, was given the status of National Institute of Technology in the year 2002, and functions under the aegis of Ministry of Human Resource Development (MHRD), Government of India. As an Institute of National Importance, it imparts high quality technical education in Engineering, Technology and Science to produce competent technical manpower for the country. The institute offers Bachelor of Technology (B. Tech.) programmes in nine disciplines of Engineering and Technology along with the Research Programmes leading to Master of Technology (M.Tech.) and Doctor of Philosophy (Ph.D.) As per the survey conducted by NIRF in the year 2020, the institute was ranked 52nd amongst all engineering institutions, including IITs in the country.

OVERVIEW

The course is aimed at sharing latest knowledge on pollution control, resource conservation, and livable communities through innovative technologies, ultimately towards smart and sustainable cities. The term “Smart City” has now become a buzzword and is extensively used and talked about in the recent past more-so than ever before. However, the definition or the concept of smart city may vary based on how one perceives it. As exemplified by the Smart Cities Mission of the Government of India (GoI), the objective of this initiative is “to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of ‘Smart’

Solutions”. The focus is on meeting the minimal needs of a city first and then looking at the opportunities to improve the life style of the people by incorporating innovative technologies, best urban planning practices, development of public-private partnerships and by making changes to policies to realize a sustainable development. The essence of this mission is also aimed at creating a replicable model which can set an example to other aspiring cities to transform themselves into a smart city thereby spearheading the creation of similar Smart Cities across the country.

There is a pressing need for ‘Smart’ solutions thorough the initiatives as such in order to cope with the grand challenges of the world including global climate change and increasing population. Application of smart solutions will enable the cities, through states and through nations to bring about a reform in the use of technology, information and data to improve the infrastructure and services and at the same time improve the quality of life, and also preserve the planet earth with its rich resources for the coming generations.

OBJECTIVES

The primary objectives of the course are as follows:

- i. To expose the emerging global challenges and concepts of sustainability, resiliency, and sustainable development
- ii. To inform on sustainability and resiliency assessment frameworks
- iii. To understand on sustainable and resilient engineering practices
- iv. To inform the examples and case studies of sustainable and resilient built infrastructure

TENTATIVE LECTURE SCHEDULE

Session-1: 09:00 AM to 10:30 AM IST

Session-2: 06:30 PM to 08:00 PM IST

Day 1

Session 1: Emerging Global/Local Challenges for Sustainable Development

Session 2: United Nations Sustainable Development Goals (UN SDGs)

Day 2

Session 1: Triple Bottom Line (TBL) of Sustainability Framework

Session 2: Resiliency and Resilient Design Framework

Day 3

Session 1: Carbon Footprint and Life Cycle Assessment (LCA)

Session 2: Examples of LCA Application

Day 4

Session 1: Green Buildings and *LEED*

Session 2: Sustainable Civil Infrastructure and Envision

Day 5

Session 1: Sustainable Waste/Materials Management

Session 2: Sustainable and Resilient Built Infrastructure: Case Studies

WHO CAN ATTEND

- Executives, engineers and researchers from manufacturing, consultancy firm, service and government organizations including R&D laboratories.
- Students at M.E./M.Tech./MS/PhD or Faculty from reputed academic institutions and technical institution preferably with engineering background
- Faculty who is teaching the similar subject