

# URBAN ANALYTICS

## EVALUATING AND MEASURING SUSTAINABILITY OF CITIES

(A NITI Aayog & GIAN collaborative)

**Venue - Continuing Education Centre**  
Indian Institute of Technology Roorkee

**JUNE 04-09, 2018**

**Organised by:**  
Indian Institute of Technology Roorkee



**International Expert**  
**Dr. Subhro Guhathakurta**

Professor and Director  
Center for Spatial Planning Analytics  
and Visualization  
School of City and Regional Planning  
Georgia Institute of Technology  
Atlanta, Georgia (USA)



**Program Coordinator**  
**Dr. Arindam Biswas**

Department of Architecture & Planning  
IIT Roorkee  
Roorkee 247667  
e-mail: arndmfap@iitr.ac.in  
Tel: +91 13322 84785  
Mobile: +91 81940 86066

**Registration**

Register through the GIAN portal:  
<http://www.gian.iitkgp.ac.in>  
or  
contact the program coordinator

**Overview**

This course discusses the concerns and challenges faced by cities today. Apparently it accommodates over half of the world's population. Our predominantly urban world has been made possible by far-reaching institutional, organizational, infrastructural, and technological advances that have enabled high rates of productivity growth as well as improved public health. Yet, the increasing pace of growth of urban populations is threatening to overwhelm scarce natural resources such as food, energy, and fresh water. Expansion of urban infrastructure and services is failing to keep pace with urbanization leading to higher levels of pollution, congestion, and disruptions in essential services that is degrading quality of life in many cities. These impacts of rapid urbanization are being felt differentially across different parts of the world as well as among different social groups within the same region. This course provides a critical review of these and other forces driving urban growth together with focused discussions about strategies that show promise of sustainable urban development. The review of challenges and possible solutions will be conducted within a comparative, cross-cultural framework. It will raise critical questions about the processes and substance of sustainable planning while navigating through debates about the issues as they have coalesced over almost a half-century.

**Objectives**

This course will provide students with knowledge and resources to: 1) understand the implications of urbanization for sustainable development;

2) appreciate the drivers of urban growth and its uneven impact on different places and peoples; 3) evaluate the conditions of sustainability in different urban regions using conceptual and analytical tools; and 4) critically examine the current debates within sustainability as it relates to urban areas and be able to contribute to that debate.

**Course Modules**

*The course would provide interactive learning platform in GIS*

**Module A**

Understanding sustainability concepts and their evolution

**Module B**

State of sustainability in the world's cities (part I)

**Module C**

State of sustainability in the world's cities (Part II)

**Module D**

Planning for sustainable development: Tools and strategies (part I)

**Module E**

Support Planning for sustainable development: Tools and strategies (part II)

**Module F**

Public Participation in sustainable planning

**Module G**

Approach to be sustainable Indian city

**Course Team**

*Patron*  
**NITI Aayog, MHRD & GIAN**

*Course Coordinator*  
**Dr. Arindam Biswas**

*International Expert*  
**Dr. Subhro Guhathakurta**

**How to reach**

Roorkee city is well connected to Delhi by rail and road.

It is situated on National Highways 58 and 73 and is on Amritsar-Howrah main rail route. Trains between Delhi and Roorkee are New Delhi-Dehradun-New Delhi Shatabdi Express and Dehradun-New Delhi-Dehradun Janshatabdi Express. The nearest airport is located at Jollygrant, (Dehradun). But most preferable airport nearest from Roorkee is the New Delhi International Airport which is about 180 kilometers away.

**Expected Participants**

- Planners, architects, geographers, engineers, executives and researchers from service and government organizations including R&D laboratories.
- Student students at all levels (BTech / B.Arch / M Arch/ MPlan / MSc / MTech / PhD) or Faculty from reputed academic institutions and technical institutions.

**How to Register**

Register through the GIAN portal <http://www.gian.iitkgp.ac.in> or contact the program coordinator. The participation fees for taking the course is as follows:

**Participants from abroad**

**US \$ 250**  
**industry / Research Organizations**  
**INR 10,000**  
**Academic Institutions**  
**INR 6000**  
**Students**  
**INR 3000**

**Accommodation**

IIT Roorkee would provide accommodation to limited participants on first-come-first-served basis. Rooms would be provided depending on availability.