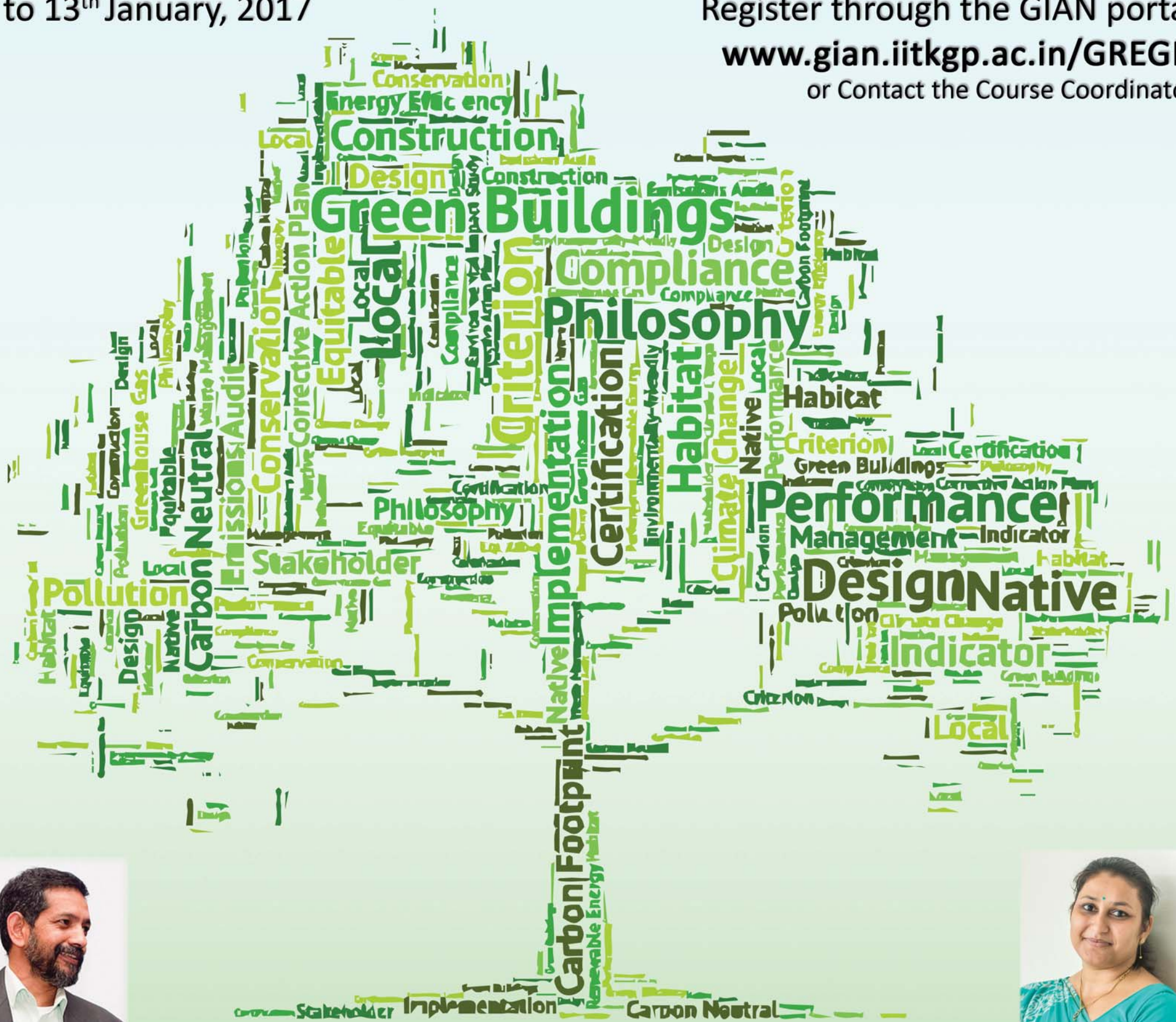


# PHILOSOPHY, DESIGN, IMPLEMENTATION AND PERFORMANCE

## REGISTRATION

**[www.gian.iitkgp.ac.in/GREGN](http://www.gian.iitkgp.ac.in/GREGN)**

or Contact the Course Coordinator



## INTERNATIONAL EXPERT

[Building Energy Integration Engineer]

Director, Team Catalyst  
Green Star Faculty  
Trainer, Supervisor and  
Accredited Assessor for NABERS



## COURSE COORDINATOR

[Assistant Professor]

Department of Architecture and Planning  
IIT Roorkee, Roorkee, Haridwar  
Uttarakhand - 247667

TEL: +91 1332 284776 (O), 286776 (R), +91-9997011410(M)

**EMAIL:** avliafap@iitr.ac.in; avlokita.agrawal@gmail.com

## VENUE

CONTINUING EDUCATION CENTRE [IIT Roorkee]



## REGISTRATION DETAILS

### WHO CAN ATTEND?

- Executives, engineers and researchers from manufacturing, service and government organizations including R&D laboratories.

- Student students at all levels (BTech / MSc / MTech / PhD) and Faculty from reputed academic / technical institutions.

### HOW TO REACH?

Roorkee is well connected to Delhi by rail and road. It is situated on National Highways 58 and 73. Easiest way to get to Roorkee is by train. Nearest Railway Station is in Roorkee, situated 3 Km. from the campus and nearest airport is Dehradun's Jolly Grant airport.

### FEES

The participation fees for taking the course is as follows:

- Participants from abroad: **US \$800**
- Industry/ Research Organizations: **Rs. 20,000**
- Academic Institutions: **Rs. 10,000**
- Students: **Rs. 3,500**

*\* The above fees include all instructional materials, computer use for tutorials, 24 hours free internet facility.*

- Number of participants for the course will be limited to **thirty**.
- Register by **05th December 2016** to secure a place.

### ACCOMMODATION

IIT Roorkee will provide accommodation to a limited number of participants on a first come first serve basis. Depending upon availability of rooms at the guest houses and hostels, accommodation will be provided on single / twin sharing on payment basis.

## COURSE TEAM

### PATRONS

**MHRD** [Ministry of Human Resource and Development]  
**GIAN** [Global Initiative for Academics Network]

### COURSE COORDINATOR



**DR. AVLOKITA AGRAWAL**  
*Assistant Professor*  
Dept. of Architecture and Planning  
Indian Institute of Technology Roorkee

### INTERNATIONAL EXPERT



**MR. P C THOMAS**  
*Building Energy Integration Engineer*  
Director, Team Catalyst  
Green Star Faculty  
Trainer, Supervisor and  
Accredited Assessor for NABERS

*\* Other experts of National Repute will also join.*

## CONTACT INFORMATION

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GLOBAL INITIATIVE OF ACADEMIC NETWORKS

# GREEN BUILDINGS

## PHILOSOPHY, DESIGN, IMPLEMENTATION AND PERFORMANCE

**VENUE**  
**CONTINUING EDUCATION CENTRE**  
[IIT Roorkee]

**COURSE DATES**  
2<sup>nd</sup> to 13<sup>th</sup> January, 2017





## INTRODUCTION

Buildings are major consumer of resources in the world and India. With our lifestyle and energy consumption pattern changing, per capita energy consumption is increasing and buildings account for major share of this energy being increasingly consumed. The statistic, attributed to BEE, and often quoted, is that 70% of buildings that will exist in 2030 have not yet been built. The need to make better buildings which consume optimal amount of resources (land, energy, water) and produce less waste is paramount under such circumstances. Government, Industry and society are collectively working towards making such buildings which are popularly called as ‘Green Buildings’. Rating bodies like IGBC and GRIHA are promoting the acceptance of such buildings.

With green and energy efficient buildings gaining momentum, the need of the hour is to build professionals who can design and deliver such buildings. Many capacity building programs are conducted by government and industry where beneficiaries are majorly professionals already working in industry. These existing programs target one part of the entire process of developing a green building. Thus the professionals and their knowledge remains compartmentalized. Few professionals come out of their domains and learn about other modules. This makes green building design and implementation a ‘hard to achieve task’. This short program aims at providing a comprehensive course to participants covering all aspects of Green Buildings right from conception to construction and operation. This would enable them to handle everything related to Green building in an integrated manner. This would allow to reduce cost and time both thereby catalyzing faster growth of green buildings.

## THE AIM

Understanding that knowledge related to Green buildings is available in part at various sources, this course aims at delivering a comprehensive package which covers all aspects of Green Buildings to ensure integration of design, implementation and operations.

## THE OBJECTIVES

The primary objectives for achieving this aim are:

- i) Exposing the participants to the concept and need of sustainability as a whole and sustainable development including sustainable design of buildings popularly known as Green Buildings.
- ii) Understanding the fundamentals of Green Buildings- Thermal Comfort, Passive design, Resource conservation, integrated design, etc.
- iii) Understanding various parts of green building design and implementation including strategies and methods of implementation – Land efficiency, Water efficiency, Energy Efficiency, material efficiency, environment quality etc.
- iv) Equipping the participants with knowledge of whole building simulation tools for assessing building design for energy efficiency and comfort creation- fundamentals and practical implementation through practical assignments.
- v) Enhancing the capability and confidence of participants to handle real time problems of green buildings through case studies and real examples.

## COURSE MODULES

**MODULE A:** Green Building Case Studies

**MODULE B:** Climate Responsive Design

**MODULE C:** Site Development Strategies

**MODULE D:** Water Efficiency and Material Efficiency

**MODULE E:** Energy Efficiency

**MODULE F:** Whole Building Simulation and Post Occupancy Evaluation

## ABOUT THE ORGANISING INSTITUTE

Indian Institute of Technology Roorkee is amongst the foremost institutes of national importance in higher technological education and applied research. Since its establishment, the Institute has played a vital role in providing the technical man power and know-how to the country and in carrying out research. The Institute ranks amongst the best technological institutions in the world and has contributed to all sectors of technological development. The institute offers Bachelor’s Degree courses in 21 disciplines including Architecture and Engineering. It offers Post-Graduate Degree in 55 disciplines of Applied Science, Architecture & Planning, Engineering, Computer Applications and Business Administration.

## ABOUT GIAN

Government of India has approved a new program titled Global Initiative of Academic Networks (GIAN) in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country’s existing academic resources, accelerate the pace of quality reform, and elevate India’s scientific and technological capacity to global excellence by evolving a system of guest lectures by internationally and nationally renowned experts which helps to garner the best international experience into our systems of education, enable interaction of students and faculty with the best academic and industry experts from all over the world and also share their experiences and expertise to motivate people to work on Indian problems.