

# FACULTY DEVELOPMENT PROGRAM ON CLIMATE CHANGE & ADAPTIVE ARCHITECTURE



## Course Description:

Humans have been adapting to their environments throughout history by developing practices, cultures and livelihoods that suited to local conditions. As the climate changes globally and locally, the built environment is subjected to different climatic exposure than in the past. Adaptation measures are required to ensure the long-term integrity and successful operation of the built environment. Designing for adaptation is an opportunity to explore new design territory and to develop new materials and construction methods to address our changing climate. This program teaches about the effects of Climate change on the built environment, opportunities and means to adapt to climate change.

## Eligible Participants:

Architecture Faculty  
Engineering Faculty  
Management Faculty and others

## Program Co-ordinator:

Ar. Hema Sree Rallapalli  
GITAM School of Architecture, Hyderabad.  
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## Course Contents:

Climate change and impact on the built environment

- Trends in climate change and its consequences.
- Effect of climate change on built environment
- Urban Issues – UHI, Disaster risk, Vulnerability, etc.
- Need, Opportunities & Challenges for Adaptive Architecture

Learning from the past and present

- Vernacular Architecture
- Climate responsive/Bioclimatic Architecture
- Disaster resistant architecture
- Kinetic Architecture

Measures and strategies for adaption to climate change

- Materials used and construction practices in the existing buildings in India
- Energy Conservation Measures for new construction and retrofitting solutions for existing buildings

Hands-on activity to retrofit existing building

- Introduction to energy simulation
- Use energy simulations to evaluate design strategies

Innovative materials and technologies to adapt to climate change

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<https://atalacademy.aicte-india.org/signup>

Telangana–November–Engineering–Online–Climate Sciences

---- Five Day **Online** Faculty Development Program is from **02-11-2020 to 06-11-2020** ----

| Schedule | Session-I   | Session-II  | Session-III   |
|----------|---|---|---|
| Day 1    | Climate Change and Adaptive Architecture - Introduction       | Vernacular Architecture                                       | Climate-responsive Architecture                               |
| Day 2    | Disaster Resilient Architecture                               | Kinetic Architecture  | UHI Reduction   |
| Day 3    | Retrofitting Existing Building – Hands on – Energy Simulation | Retrofitting Existing Building – Hands on– Energy Simulation  | Retrofitting Existing Building – Hands on– Energy Simulation  |
| Day 4    | Retrofitting Existing Building – Hands on– Energy Simulation  | Retrofitting Existing Building – Hands on – Energy Simulation | Retrofitting Existing Building – Hands on – Energy Simulation |
| Day 5    | Innovative Materials Technologies to adapt to climate change. | Exam  | Feedback and Valedictory                                      |

E-Certificate upon successful completion (80% attendance and min 60% marks in assessment)

Organised by,

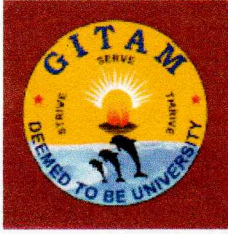
GITAM School of Architecture,  
GITAM (Deemed to be University),  
Patancheru, Hyderabad - 502329



Supported by,

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# GITAM SCHOOL OF ARCHITECTURE

## GITAM

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(Established u/s 3 of the UGC Act, 1956)

Accredited by NAAC With 'A+' Grade

Rudraram, Patancheru Mandal, Sangareddy District, TS - 502 329.

07-11-2020,

Hyderabad.

Ramana Koti

BEMP, LEED Fellow

Lord Aeck Sargent, A Kattera Company,

United States of America.

Dear Mr.Ramana Koti

On behalf of the Gitam School of Architecture, GITAM (Deemed to be University) we wanted to express our appreciation to you for being the speaker on "An Introduction to Climate Change and Adaptive Architecture" in the Online Faculty Development Program we conducted from November 2<sup>nd</sup>-6<sup>th</sup> on "Climate Change and Adaptive Architecture" supported by AICTE-ATAL Academy. Your talk was extremely informative and very well delivered which has reflected in the tremendous positive response we received from the participants.

Thank you for personally taking time to provide us with the timely information. We appreciate and look forward to your continued support.

Sincerely,

*G.Sunil Kumar*

Prof.G.Sunil Kumar

Director,

Gitam School of Architecture,

GITAM (Deemed to be University)

Hyderabad

