

# Climate Change: Science, Impact and Adaptation

(1 – 8 December, 2016)

## Overview

How our communities should become resilient to climate change impacts? How should we design future smart cities that are climate smart? What is the current understanding about the science of climate change applied to regional and local scales? What is the expected nature of hazards and extremes to climate change? How are we understanding these changes and what can communities do to become resilient? These and related questions will be addressed in this short course.

This course is organized in three modules that should be taken together. The topics in Module A will introduce to the participants the scientific basis of climate change-fundamentals and science of climate variability and climate change, extreme weather events in association with climate change, processes and method of assess. Module B focuses on observations and modeling aspects – observations and monitoring of anthropogenic effects, regional and global modeling system, impact of land use land cover on climate along with hands-on exercises. In Module C, Applications, case studies and adaptation strategies will be covered. Also case studies and assignments will be shared to stimulate research interaction among participants.

<b>Course Modules</b>	<p>A: Scientific basis of Climate Change : 1 – 2 December, 2016          B: Observation and Modeling : 2 – 5 December, 2016          C: Applications, case studies and Adaptation strategies : 6 – 8 December, 2016</p>
<b>You Should Attend If...</b>	<ul style="list-style-type: none"> <li>▪ You are an atmospheric/climate scientist, scholar from research/operational/academic institutions and interested in climate change issues.</li> <li>▪ You are a student or faculty from academic institution interested in learning about science of climate change and impacts.</li> <li>▪ You are a practitioner/NGO/policy maker, media personnel, involved/interested with science of climate change and related issues.</li> <li>▪ You are a member of risk assessment/disaster management group, insurance analyst, and smart city planner; and interested in climate change, impact and adaptation issues.</li> </ul>
<b>Fees</b>	<p>The course registration fees for taking the course is as follows:  <b>Participants from abroad : USD 300</b>  <b>Industry/ NGOs/Others : Rs. 10000</b>  <b>Central &amp; State Government agencies: Rs. 5000</b>  <b>Academic Institutions (Faculty/Students/Project Staff): Rs. 3000</b></p> <p>The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges and internet facility. The participants will be provided with accommodation on payment basis.</p> <p>With partial financial support from Department of Science and Technology, Govt. of India, under the Climate Change Program, a limited number of participants will be supported with travel grant (course registration fee, travel and local hospitality). Students/young faculty from academic institutions under 40 years of age who wish to avail this support to attend the course may mail their request letter with complete bio-data to the undersigned (Prof. U. C. Mohanty; ucmohanty@iitbbs.ac.in) on or before <b>31 October, 2016</b>.</p> <p>Online registration by paying web registration fee is mandatory for all participants in addition to the course registration fee given above. For any queries regarding registration or other practical information, please contact the course coordinator.</p> <p><b>Number of participants for the course will be limited to 50.</b></p> <p><b>Register online at <a href="http://www.gian.iitkgp.ac.in/GREGN">http://www.gian.iitkgp.ac.in/GREGN</a></b></p>

## The Faculty



**Prof. Dev Niyogi** is a Professor with joint appointment in departments of Agronomy- Crops, and Earth System Sciences and the Earth, Atmospheric and Planetary Sciences at Purdue University. He is also the state climatologist of Indiana. His research seeks to advance the understanding of land surface processes in environmental, weather forecasting and climate analysis using a combination of models and satellite remote sensing and multiscale analysis products. Focus is not only developing regional assessments but also on the development of adaptation and mitigation tools. Additional details regarding the projects and the activities of land surface modeling group can be found at <http://landsurface.org/>.



**Prof. U.C. Mohanty**, after about 34 years of experience in teaching and research in Indian Institute of Technology (IIT) Delhi, is currently serving as a Visiting Professor in the School of Earth, Ocean and Climate Sciences, IIT Bhubaneswar. His research areas of interest are Tropical Meteorology, Monsoon Dynamics, Climate studies and Meso-scale Modelling of Extreme Weather Events such as Tropical Cyclones, Severe thunderstorms and monsoonal heavy rainfall. Additional information about his recent projects and research activities can be found at <http://www.iitbbs.ac.in/profile.php/ucmohanty/>



**Dr. V. Vinoj** is an Assistant Professor at the School of Earth, Ocean, and Climate Sciences, IIT Bhubaneswar, India. He received the Ph.D. degree in 2009 in atmospheric sciences from the Indian Institute of Science, Bangalore. He is an atmospheric/climate scientist by training. His expertise lies in the integration of both observations and modeling to understand various aspects related to aerosol effects including radiative forcing, monsoon rainfall and long range transport of aerosols/pollutants. Further details can be obtained from <http://www.iitbbs.ac.in/profile.php/vinoj/>

### Bank details for online payment of course registration fee:

**A/C Name: CEP, IIT Bhubaneswar**  
**A/C No: 24282010001960**  
**IFSC Code: SYNB0002428**  
**Bank Name: Syndicate Bank**  
**Branch Address: Indian Institute of Technology (IIT), Bhubaneswar**

## Course Co-ordinators

### **Prof. U. C. Mohanty**

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