

ONLINE CSSTEAP SHORT COURSE ON “Earth’s Atmosphere and Climate Change”

October 21 – 25, 2024

Organized by



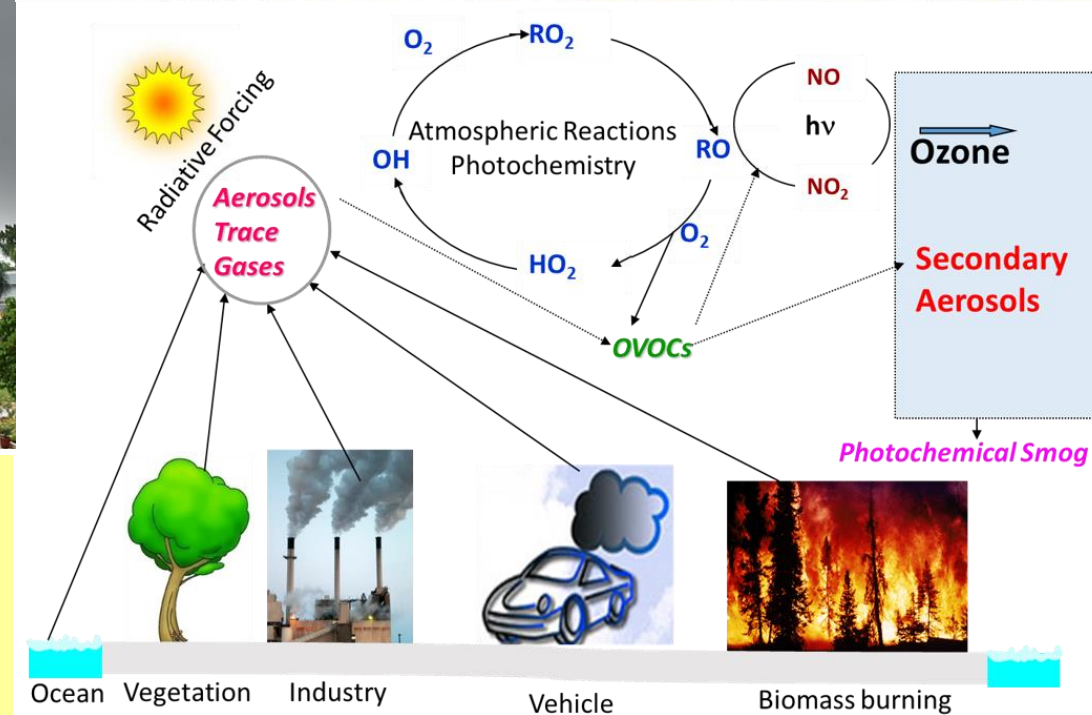
Conducted by



Centre for Space Science and Technology
Education in Asia and the Pacific (CSSTEAP)
(Affiliated to the United Nations)
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www.cssteapun.org



Physical Research Laboratory (PRL)
(A Unit of Dept. of Space, Govt. of India)
Navrangpura, Ahmedabad, India
www.prl.res.in



INTRODUCTION

The Earth is unique among the planets of solar system because of presence of air and water. It has a composition that supports life, maintains surface temperature, and filters out biologically harmful UV radiation from Sun. Most physical and chemical processes which govern climate occur in the lower atmosphere. The climate is a result of interactions between atmosphere, oceans, land and biosphere. Increasing human activities lead to climate change. It is therefore necessary to understand the links between the different processes that maintain atmospheric composition and climate.

Climate change refers to a change in the state of the climate that can be determined by changes in the mean and/or the variability of its properties/constituents. Climate change can last for decades or even longer. The changes due to internal processes in the climate system, natural processes such as solar irradiance changes and volcanic eruptions, and human activities by causing changes in the green house gas concentrations, aerosols, and cloudiness in the Earth's atmosphere contribute to climate change.

ABOUT CSSTEAP

The CSSTEAP was established in India in November 1995 with its headquarters in Dehradun and is considered as the Centre of Excellence by UNOOSA. The 1st campus of the Centre was established in Dehradun, India and is hosted by Indian Institute of Remote Sensing (IIRS), a constituent unit of Indian Space Research Organisation (ISRO). The CSSTEAP has been imparting training and educational programmes related to RS & GIS, Satellite Communication, Satellite Meteorology, Space Science, Global Navigation Satellite Systems, and Small Satellite Mission, helping participants in developing research skills through its Master Degree, Post Graduate and Certificate programmes.

ABOUT PRL

Known as the cradle of Space Sciences in India, the Physical Research Laboratory (PRL) was founded in 1947 by Dr. Vikram Sarabhai. As a unit of the Department of Space, Government of India, PRL carries out fundamental research in selected areas of Physics, Space & Atmospheric Sciences, Astronomy & Astrophysics, Solar Physics, Planetary and Geosciences.

OBJECTIVE OF THE COURSE

The main objective of the course is to provide a brief overview of the salient features of the Earth's atmosphere, its composition and processes that drive its climate and climate change with an emphasis on the recent trends. The course will have lectures on the techniques used to study the composition of the Earth's atmosphere, its constituents, and in addition, will cover modeling aspects.

COURSE CONTENTS

1. Earth's atmosphere, aerosols, climate, and climate change
2. Characteristics of trace gases and their contribution to climate change
3. Clouds and their role in weather and climate variability
4. Remote sensing techniques for aerosols and trace gases measurements
5. Perspectives of global scale atmospheric circulation
6. Introduction to atmospheric waves
7. Modelling of changes in natural and anthropogenic effects

ELIGIBILITY AND HOW TO APPLY

Applicants should have a Master's degree in Science or other equivalent qualification, OR a Bachelor's/Master's degree in Engineering or Technology. Since the whole course will be conducted in English, the applicant should have proficiency in the English language.

Applicants should apply online through the CSSTEAP website <https://admissions.cssteapun.org/login>

Announcement of Course: September 20, 2024

Last date for receipt of application: October 14, 2024

In case of any difficulties while submitting the online application form, please e-mail at websupport@iirs.gov.in

Link for lectures will be shared with selected applicants in due course. Applicants are advised to check the website www.cssteapun.org regularly for further updates and information.

CONTACT DETAIL

For any course related query, the applicants may contact

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