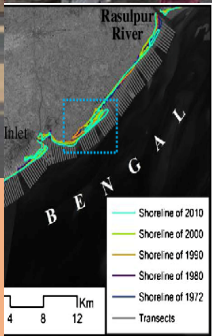




**ONLINE SHORT COURSE**  
**ON**  
**“COASTAL ZONE MANAGEMENT IN**  
**RESPONSE TO NATURAL HAZARDS AND**  
**CLIMATE VARIABILITY”**

**Organized By**      **Conducted By**



**Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP)**  
 (Affiliated to the United Nations)  
 IIRS Campus, 4, Kalidas Road, Dehradun, India  
[www.cssteap.org](http://www.cssteap.org)

**Indian Institute of Remote Sensing (IIRS)**  
**Indian Space Research Organisation (ISRO)**  
 Department of Space, Government of India  
 4, Kalidas Road, Dehradun, India  
[www.iirs.gov.in](http://www.iirs.gov.in)



**Through: Virtual Platform**  
**June 14 – 25, 2021**

## INTRODUCTION

Sea level rise has been considered as one of the major threats to the low-lying coastal regions around the world. Sea level rise increases the vulnerability of the coastal zones which are already exposed to multiple hazards, including storms and storm induced flooding, erosion, tsunamis etc., and the impact of climate change increases the uncertainties and complexity of the scenario. Thus, the appropriate management of the coastal regions are vital for ensuring the environmental and economic stability of the coasts. The coastal management integrates the biological, physical, and policy sciences to form the adequate plans with maximum sustainability for protecting the coastal zones. The long term implications of such actions in response to the natural hazards and climate change are also of vital importance.

## ABOUT CSSTEAP AND IIRS

CSSTEAP was established in India in November 1995 with its headquarters at Dehradun and over the past 25 years, the center has emerged as a Centre of Excellence in capacity building in the field of space science and technology applications. The CSSTEAP programmes are executed by the faculty of Department of Space at campuses namely, Indian Institute of Remote Sensing (IIRS), Dehradun, Space Applications Centre and Physical Research Laboratory, Ahmedabad and UR Rao Satellite Centre, Bengaluru. The training programmes includes PG and Short Courses on RS & GIS, Satellite Communications, Satellite Meteorology and Global Climate, Space & Atmospheric Science, Global Navigation Satellite Systems, Small Satellite Missions and DRR regularly. Besides this many short courses, webinars, MOOC and workshops on various themes are also organized.

IIRS (established in 1966), a constituent unit of ISRO, is a key player for training and capacity building in geospatial technology and its applications through training, education and research in Southeast Asia. The training, education and capacity building programmes of the Institute are designed to meet the requirements of professionals at working levels, fresh graduates, researchers, academia, and decision makers.

## OBJECTIVE OF THE COURSE

The overall objective of this two weeks training programme is to provide an understanding on sea level rise in response to natural hazards and climatic variability and the importance of coastal zone management to the users / researchers / professionals / decision-makers / academicians. The participants will gain knowledge about the coastal zone management concepts, inundation due to tropical cyclones and tsunami, climate change, sea level rise, coastal vulnerability due to inundation and sea level monitoring using remote sensing products. The course will provide an understanding of the advantages of remote sensing observations for coastal zone management and the areas of active research. The course will include theory and hands-on sessions to facilitate in-depth learning.

## COURSE CONTENTS

### *First Week*

- An introduction to ocean remote sensing
- An overview of Climate Change and Natural Hazards in context to ocean sciences
- An introduction to coastal zone management
- Application of geospatial technology for coastal zone management
- Overview of remote sensing applications for coastal hazards

### *Second Week*

- Coastal inundation due to tropical cyclones and tsunami
- Sea level rise in the climate change scenario
- Analysis of coastal vulnerability due to inundation
- Global and regional sea level monitoring using remote sensing data
- Generation of DEM of intertidal zone using Google Earth Engine

## ELIGIBILITY

The applicants should have a master's degree in science or bachelor's degree in engineering or equivalent qualification relevant in the field of study with at least 5 years of experience in teaching/research or professional experience in the field of Marine Science, Earth Science, Oceanography, Fisheries, Environmental Science, and related fields. For candidates with higher qualifications, the minimum experience may be relaxed. Basic knowledge in mathematics and/or statistics is essential. The course will be conducted in English, the candidate should have proficiency in English language.

## COURSE FEE AND HOW TO APPLY

There is no course fee for applicants applying through proper channel. Applicants are requested to send the scan copy of their application forwarded by the Head of their respective organization / institution for consideration through e-mail at [cssteap-admissions@iirs.gov.in](mailto:cssteap-admissions@iirs.gov.in).

**Announcement of course: February 15, 2021**

**Last date for application (via e-mail): April 15, 2021.**

## CONTACT DETAIL

**For any course related query, Kindly contact to**

**Dr. D. Mitra**

**(Course Director)**

(Email: [mitra@iirs.gov.in](mailto:mitra@iirs.gov.in); Ph: +91-135-2524181)

**Dr. Sachiko Mohanty**

**(Course Coordinator)**

(Email: [sachiko@iirs.gov.in](mailto:sachiko@iirs.gov.in); Ph: +91-135-2524178)

**Indian Institute of Remote Sensing  
4, Kalidas Road, Dehradun-248001,  
Uttarakhand, India**



**CENTRE FOR SPACE SCIENCE AND TECHNOLOGY EDUCATION  
IN ASIA AND THE PACIFIC**  
(AFFILIATED TO THE UNITED NATIONS)

**APPLICATION FORM FOR SHORT COURSE ON  
“Coastal zone management in response to natural hazards and climate variability”**

**June 14 - 25, 2021**

**Conducted by  
Indian Institute of Remote Sensing, Dehradun, India  
(Through Online mode)**

**Last date for receipt of application: April 15, 2021  
(Through e-mail: [cssteap-admissions@iirs.gov.in](mailto:cssteap-admissions@iirs.gov.in))**

Affix  
Recent Passport  
Size Photograph

1. Name (Dr/Mr/Mrs/Miss): .....

2. Father's Name: .....

3. Date of Birth (DD/MM/YYYY): ..... 4. Place of Birth: .....

5. Gender (Male/Female): ..... 6. Nationality: .....

7. Contact Information: Present official Address (Valid until what date):  
.....  
.....

Home: ..... Office: .....

Mobile: ..... E-mail: .....

8. Permanent home Address (in your country):  
.....  
.....

Telephone: ..... Alternate E-Mail (G-mail or Yahoo): .....

**9. ACADEMIC QUALIFICATIONS:**

Degree/(Bachelor/ Master)/ Diploma	Duration of Course (mention from which year to year)	University/ Institution Name	Year of passing	Grade/ Percentage	Major subjects/ specialisation

10. DETAILS OF EXPERIENCE:

(a) Present Position: .....

Organisation and Complete Address: .....

.....

Date of joining this Organisation (dd/mm/yyyy): .....

(b) Experience during past 15 years:

Name of the Organisation(s)	Position(s)/Post(s) held	Nature of work done	Duration

11. Have you done any other course from CSSTEAP (If 'yes'; please give details including the month & year):

.....

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12. DETAILS OF PASSPORT: Please provide valid passport details below and if not holding a valid passport, please forward copy of the passport whenever available.

Passport Number	Place of Issue (City and Country)	Date of Issue	Passport Valid up to	Issuing Authority

13. DECLARATION BY THE CANDIDATE:

I have read the announcement brochure and the information provided in the application are correct.

Date:

Place:

Signature of Candidate

14. NOMINATING AGENCY CERTIFICATE:

Dr./Mr./Ms.....is nominated to attend the short course on "Coastal zone management in response to natural hazards and climate variability" to be conducted by Indian Institute of Remote Sensing, Dehradun, Uttarakhand, India during June 14 - 25, 2021 through online mode. It is envisaged to utilize his/her experience in specific tasks of our organization. He/She possesses adequate knowledge of English Language required for the course.

Date:

Place:

Signature:

Name in Capital Letters:

Designation:

Phone No:

Fax No:

Email:

(Official Seal of the sponsoring or nominating authority)

Please send the scan copy of application form duly signed by the nominating agency to the Course Director, CZM Course, Indian Institute of Remote Sensing (ISRO), Dehradun - 248001, Uttarakhand, India through email at [cssteap-admissions@iirs.gov.in](mailto:cssteap-admissions@iirs.gov.in).