

9th International online training course
on
Small Satellite Mission



Organized By
Conducted By

Virtual Platform: GoToMeeting
(December 14 to December 25, 2020)



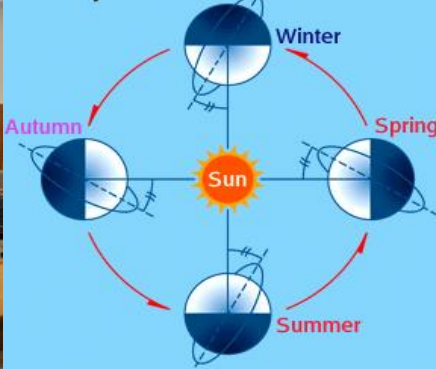
Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP)
(Affiliated to the United Nations)
IIRS Campus, 4, Kalidas Road, Dehradun, India
www.cssteap.org



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



U R Rao Satellite Centre (URSC)
Indian Space Research Organisation (ISRO)
Department of Space, Government of India
Vimanpura Post, Bengaluru, India
www.ursc.gov.in



INTRODUCTION

Space technologies, especially satellites are important instruments for development and progress of humankind. Satellites are used for Earth observation, Communication, Navigation, Atmospheric studies, Astronomical observations and Military applications. Satellites provide uninterrupted services with less cost when compared with conventional methods for similar applications. With an increase in the awareness of benefits of space technologies, many countries are integrating space capabilities into their national development programmes. The increase in cost, complex technology, high fabrication skills and continuous service requirements restrict the satellite fabrication and launch to only a few countries or agencies. On the other hand, the revolution in electronics miniaturization, invention of smart materials has reduced the satellite size and mass. Further, the improvements in computation capability, high capacity storage devices, imaging technology, control intelligence and onboard automation have opened the opportunities to design and fabricate smaller, faster and cheaper sophisticated 'small' satellites for all.

ABOUT CSSTEAP, IIRS AND URSC

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 IIRS (established in 1966) 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.

The U R Rao Satellite Centre (URSC) in Bengaluru, is the lead centre of ISRO engaged in developing satellite technology and fabrication of satellite systems for scientific, technological and application missions.

OBJECTIVE OF THE COURSE

The overall objectives of the two weeks training course are

- To generate awareness among users/ researchers, professionals, decision-makers and academicians on small satellites.
- To generate awareness of the satellite applications, space technologies and international cooperation in space activities.

COURSE CONTENTS

First Week

- Orbit (Classification, Utility, Dynamics, Determination, GPS and Corrections)
- Mechanical Systems (Structure and Mechanisms)
- Thermal control system
- Mission Analysis and Planning
- Power generation, storage and distribution systems
- Remote Sensing data utilization
- Control Systems (Sensors, Processors and actuators)

Second Week

- Electrical System (Digital systems)
- Telemetry and tele-command systems
- Communication systems
- Facilities required for Environmental tests
- Resources required for Fabrication
- Project Management
- Reliability, Testing & Measurements- space systems
- Launch vehicle interfaces & Launch base operations
- Small Satellites and Emerging Technologies
- Spacecraft on-orbit Operations

ELIGIBILITY AND SELECTION PROCESS

The course is aimed for decision makers, senior space technologists, managers, researchers and professionals in the fields of space technology.

- A limited number of seats are available for this course, which will be filled with participants from different countries.
- Government employees and professionals working in the field of space technology would be given priority.
- Candidates who have obtained a degree in electrical or electronics or mechanical engineering will be given preference. Candidate should have proficiency in English language as whole course will be conducted in English.
- The selection of candidates is carried out by a designated selection committee.
- Link of lectures will be shared with selected candidate in due course.

HOW TO APPLY

Applicants are requested to send the scan copy of their application forwarded by the Head of their respective institute for consideration **through e-mail at cssteap-admissions@iirs.gov.in** latest by **November 15, 2020**. Incomplete applications will not be considered for selection.

CONTACT DETAILS

CSSTEAP

(Email: cssteap@iirs.gov.in; Ph: +91-135-2524225
Indian Institute of Remote Sensing, Dehradun, India

Course Director: Dr. P. Murugan

(Email: muu@ursc.gov.in; Ph: +91-080-25082638)
U R Rao Satellite Centre, Bengaluru, India

Course Coordinator: Dr. Ashutosh Srivastava

(Email: asrivastava@iirs.gov.in; Ph: +91-135-2524133)
Indian Institute of Remote Sensing, Dehradun, India



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

**APPLICATION FORM FOR
9th INTERNATIONAL TRAINING COURSE ON
SMALL SATELLITE MISSION**

December 14, 2020 to December 25, 2020

Conducted by

Indian Institute of Remote Sensing, Dehradun, India

U R Rao Satellite Centre, Bengaluru, India

(Through Webinar mode)

**Last date for receipt of application: November 15, 2020
(Through e-mail: cssteap-admissions@iirs.gov.in)**



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)

.....

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. (For foreign national only)

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 "Small Satellite Mission" to be conducted by Indian Institute of Remote Sensing, Dehradun, India and U R Rao Satellite Centre, Bengaluru during December 14- December 25, 2020 through webinar mode. It is envisaged to utilise 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 Coordinator (SSM), CSSTEAP, Indian Institute of Remote Sensing, Dehradun - 248001, India by November 15, 2020 through Email at cssteap-admissions@iirs.gov.in.