

10th International training course
on
Small Satellite Mission
(Through Online Mode)

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



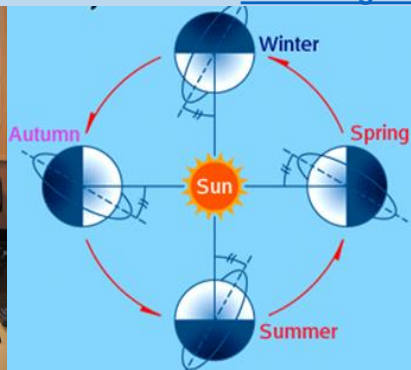
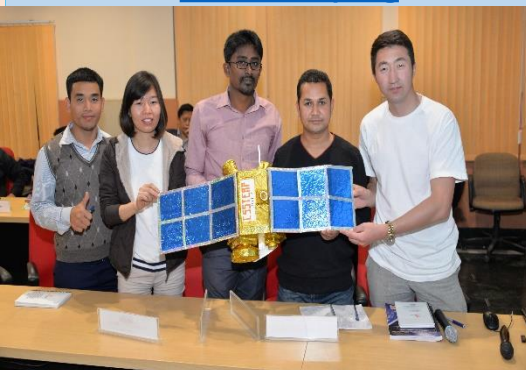
Indian Institute of Remote Sensing (IIRS)
Indian Space Research Organisation (ISRO)
Department of Space, Government of India
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www.iirs.gov.in



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



(December 13 to December 24, 2021)



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

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 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 the course will be conducted in English medium.
- The selection of candidates will be carried out by a designated selection committee.
- The web link will be shared with the selected candidates to attend the online course in due time.

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 **October 01, 2021**. Incomplete applications will not be considered for selection.

CONTACT DETAILS

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