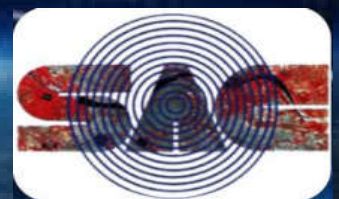


**Centre for Space Science and Technology
Education in Asia and the Pacific**

Announces

**ONLINE SHORT COURSE
On**

**INTEGRATED SATELLITE NAVIGATION
AND COMMUNICATION SYSTEM
AND ITS APPLICATIONS
(NAVCOM)**



Organized by

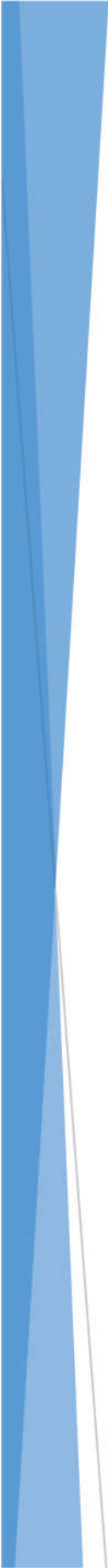
**Centre for Space Science and Technology
Education in Asia and the Pacific (CSSTEAP)
(Affiliated to the United Nations)**

Conducted by:

Space Applications Centre (SAC), ISRO

Academic Year

2025



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Online Short Course on NAVCOM

Background

From the last few decades, the use of space technology for welfare of mankind and overall development of the humanity is growing exponentially. Today, Satellite Communications (SATCOM) and Satellite Navigation (SATNAV) are an integral part of the modern life. While Satellite based navigation system provides user position ubiquitously, Satellite Communication can communicate this position information to anywhere needed. The synergic coalition of these two ground breaking technologies are creating large impact through their conjunctive applications. From online cab booking to originating medical emergency and from tracking running status of trains to search and rescue missions, the combined navigation and communication technology and applications have proliferated into human lifestyles and has become an integral part of both rural and urban societies. For sustainable development in Asia and the Pacific region, all concerned countries need understanding the related technology to nurture it and take it forward. This can be achieved through capacity building and thus bridging the gap between the technology and using the application. Towards this end, the Centre for Space Science and Technology Education in Asia & the Pacific (CSSTEAP) is offering an 8 day long online course in NAVCOM.

NAVCOM Course Overview

The course titled 'Integrated Navigation and Communication System and its Applications (NAVCOM)' is proposed to be conducted online over the duration of 8 days. The course focuses on the requirement, methodology and applications of the integration of the SATNAV and SATCOM systems. It aims to equip the participants with knowledge and basic skills to understand, use and implement the integrated system for various applications. After covering the basic prerequisites, the course will comprise of the topics concerning technologies relevant for the purpose including its safety and security aspects. It will finally cover the different applications in varied fields. It will also provide basic hands on experience to the participants relevant to the subject.



NAVCOM Course

a. Course Objectives

The course objective is to introduce the concepts of the existing technology of that combines SATCOM and GNSS to derive useful outcomes. The participants will be introduced to the relevant topics of the subject. With this, they shall be able to (i) know the background of the developments (ii) understand the working principles of the systems, (iii) become acquainted with the latest applications of NAVCOM (iv) develop basic skills to implement and apply new applications, and (v) enhance the self-reliance by contributing to policy making, planning, development and management of similar systems and applications to real-world problems.

b. Course Contents

The contents of the course are highly integrated and designed to maximize linkages across the following key themes. For more detailed course, please write back to us.

Fundamentals

Technology

Applications

- Background
- SATCOM & SATNAV Basic Theory
- Signals and Systems
- Combining SATCOM & SATNAV
- NAVCOM Architecture
- NAVCOM Security aspects
- NAVCOM Applications and Case Studies
- Advanced NAVCOM Topics

INVITATION OF NOMINATION

Nominations are invited from candidates in countries of Asia and the Pacific Region for the educational program of the Centre. Nominations of candidates will have to be endorsed by recognized institutions (e.g. organization heads etc.) in their respective countries. Endorsing institutions should ensure that the returning scholar will contribute in development oriented activity in the area of newly acquired knowledge and skills.

Important Details

Selection

Course mode:	Online
Announcement:	25 September, 2025
Opening of Application Submission:	25 September, 2025
Closing of Application Submission:	25 October, 2025
Selection Letter to Candidates:	05 November, 2025

Course

Number of Seats:	Max 100
Starting of the Course:	19 November, 2025
Closing of the Course:	28 November, 2025
Timing (IST):	09:30 – 17:30 hrs.

Who Should Apply

Professionals

Development and Service Engineers and specialists
Technical Professionals, Decision Makers and
planners in relevant areas

Decision Makers

Government officials

Researchers & Students

Students and Young researchers interested in
space based technology
Researchers and Faculties from relevant areas

ELIGIBILITY

Bachelor's Degree in Electronics/Telecommunications/Electrical Engineering/Computer Science OR Master's degree in Science (Physics, Electronics) or equivalent with at least 2 years of experience in teaching/research or professional experience in the relevant field. The candidates should be nominated by the head of the organization for attending the course.

How to Apply

Applications should be made in ONLINE MODE ONLY by visiting the CSSTEAP website www.cssteapun.org. The details of the application procedure will be available at the web page. Applicants are required to follow the instructions given therein to successfully submit the application. Offline applications or late submissions will NOT be considered.

SELECTION OF CANDIDATES

Based on the completed application forms received, the Selection Committee will select the candidates as per selection criteria set by CSSTEAP. Selection criteria include satisfying eligibility requirement, country representation, proficiency in English language, etc. Preference will be given to the nominated candidates from countries in Asia and the Pacific. However, willing participants from other parts of the world can also apply.

IMPORTANT INFORMATION:

1. Interested candidates have to fill application form in online mode ONLY.
2. It is essential that all necessary details are provided in the Application Form. Application Forms without requisite details may not be considered.
3. The application form should be filled carefully with verified and correct information. If any information is hidden or found to be wrong later, appropriate actions may be taken against the candidate.
4. Applicant should attach copies of the necessary certificates as instructed in the application form. Information of the highest degree obtained (Degree certificate and mark sheet/grade card) to be provided in the application.
5. Applicants, who have done their higher studies in a medium (language) other than English, are required to submit a certificate of English language issued by an accredited language institution in the country or by the local UNDP.
6. All the degree certificates, if not in English may please be translated in English and attested by the Head of the organization / notary or transcript in English can be submitted with seal.

In case of any issue in filling up the application form, please write us your problem to cssteap-admissions@iirs.gov.in

More About the Course

COURSE EXPENSES

There is no course fee for this course.

MEDIUM OF INSTRUCTION

The language of the courses is English. Therefore, proficiency in the language is a mandatory requirement. The nominating officer need to affirm the applicant's competence in spoken and written English with supporting document uploaded along with the application.

FACULTY

The faculty consists of scientists and engineers from Space Applications Centre, and other Centers of Indian Space Research Organisation (ISRO), having experience in the field of SATCOM, SATNAV and related technologies and applications. The core faculty has a strong scientific and academic background with a number of research publications to their credit.

COURSE METHODS AND TEACHING AIDS

The course will be conducted in online mode using a secured meeting platform over internet. Soft copy of the lectures/presentations will be supplied to all the students. In addition, computer based experiments, and case studies will also be used for the course.

EVALUATION PROCEDURE

Performance of the participants will be assessed through online tests at the end of the course.

AWARD OF CERTIFICATE

On successful completion of the course, the Centre will award Certificate. Bonafide participants, completing the course with more than 90% attendance will only be eligible for the certificate.



About CSSTEAP

CSSTEAP was established in India in November 1995 with its headquarters in Dehradun and over the past 30 years, the center has emerged as a Centre of Excellence in capacity building in the field of space science and technology application. The CSSTEAP programs 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 programs 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. For more information visit www.cssteapun.org.



Dr. R. P. Singh
Director, CSSTEAP

About SAC

Space Applications Centre (SAC), one of the major centers of the Indian Space Research Organization, is engaged in the research and development of applications of Space Technology in the field of Communications, Remote Sensing, Meteorology, and Satellite Navigation. Its achievements include development of communication, navigation and meteorological payloads and designing various applications. SAC has immensely contributed in the recent ISRO achievement of successful soft landing on moon by delivering important payloads like camera, altimeter etc. SAC has one of the biggest cleanrooms in Asia where the satellite payloads are integrated and tested. This center is conducting CSSTEAP courses since 1997 and provides its infrastructure to conduct the courses to the students of CSSTEAP. For more information, visit www.sac.gov.in



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