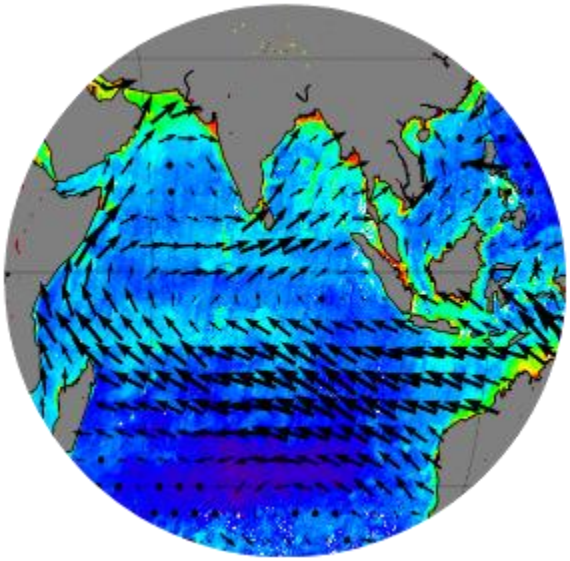
Earth and Climate Sciences Area (ECSA)

CSSTEAP Course Closure Report
on
“Satellite Remote Sensing for Ocean Applications”

27 October - 07 November, 2025



National Remote Sensing Centre (NRSC)
Indian Space Research Organization (ISRO)
Hyderabad

Report at Glance

Name of the Course	: Satellite Remote Sensing for Ocean Applications
Program Sponsor	: CSSTEAP-NRSC
Implementing Agency	: NRSC
Venue	: IMGEOS Facility, Shadnagar
Dates	: October 27 - November 07, 2025
Total Participants	15
Duration total	: 12 Days
Reported by	: Ocean Science Group (OSG), ECSA NRSC

1. Overview

The Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) is a United Nations-affiliated institution established in 1995, headquartered in Indian Institute of Remote Sensing (IIRS), Dehradun, India. It is dedicated to building regional capacity in space science and technology applications for sustainable development. CSSTEAP offers postgraduate-level training, workshops, and research programs in key areas such as satellite communications, remote sensing, space science, and satellite meteorology. These programs integrate theoretical instruction with practical applications, utilizing state-of-the-art facilities and collaborations with premier space agencies like ISRO. The center aims to equip participants from member countries with advanced skills, promoting regional cooperation and innovation in space technology. Graduates who pass out from these courses contribute to diverse fields, including natural resources monitoring, disaster management, environmental monitoring, and other remote sensing application domains, emphasizing the center's pivotal role in addressing regional and global challenges through space-based solutions.

As part of this program, the National Remote Sensing Centre (NRSC) organized the second annual CSSTEAP Short Course on "Satellite Remote Sensing for Ocean Applications" from 27 October to 07 November 2025 at the Knowledge Resource Area, IMGEOS facility Earth Station, Shadnagar. The course aimed to provide advanced training to participants from the Asia-Pacific region on the application of satellite remote sensing technologies for oceanographic studies. The program covered various aspects of ocean monitoring, including ocean color, ocean biogeochemistry, water quality parameters, sea surface temperature (SST), sea surface salinity (SSS), sea level, ocean winds, SAR ocean applications, and carbon dynamics, with a focus on using satellite data for oceanographic research and environmental management. The participants were also introduced to basic concepts of utilizing remote sensing data for ocean circulation and wave modeling.

Participants were introduced to the latest remote sensing techniques, tools, and software for analyzing ocean data. Practical sessions provided hands-on experience in processing and interpreting satellite imagery for various ocean applications, such as climate change monitoring, marine ecosystem health, and coastal management. The course also emphasized the integration of remote sensing with other oceanographic data for enhanced modeling and forecasting. By fostering expertise in satellite remote sensing, the short course contributed to capacity building in the region, promoting the sustainable use of ocean resources and addressing the challenges of global marine environment monitoring.

2. Inaugural Session of the CSSTEAP Short Course

The Course was attended by 15 participants, representing a diverse set of countries within the Asia-Pacific region. The participation included 11 foreign officials from Kazakhstan (3), Indonesia (2), Philippines (2), Sri Lanka (3), and Mongolia (1), along with 4 participants from India. This international collaboration emphasizes the significance of regional cooperation in advancing satellite remote sensing applications for oceanographic research and environmental monitoring. This broad participation reflects the program's

regional significance and its role in promoting international collaboration and knowledge-sharing in space science and technology education. The presence of participants from diverse backgrounds contributed to a rich exchange of ideas and experiences, enhancing the overall learning experience for everyone involved.

The participants represented various organizations across the Asia-Pacific region, including:

1. Department of Space Systems, Kazakhstan
2. Philippine Space Agency, Philippine
3. National Research and Innovation Agency, Indonesia
4. National Agency for Meteorology and Environmental Monitoring (NAMEM), Mangolia
5. Survey Department of Sri Lanka
6. Center for Studies on Bay of Bengal, Andhra University, India
7. Dr. M.G. R Educational and Research Institute, Chennai, India.
8. CSIR-National Institute of Oceanography, Visakhapatnam, India

The Satellite Remote Sensing for Ocean Applications (SRSOA) course commenced with an inaugural session on 27 October 2025, marking the beginning of the training programme. The programme began with welcoming of guests and the ceremonial lighting of the lamp, followed by a welcome address by Dr. M. Naresh Kumar, Manager, NRSC CSSTEAP Programme Office, and NRSC. This was followed by an online address from Dr. Arijit Roy, Programme Coordinator, CSSTEAP, who briefly spoke about the objectives of the CSSTEAP programme and its role in capacity building across the Asia-Pacific region. Dr. P. V. Nagamani, Course Director, then provided a brief overview of the course, outlining the training objectives, technical sessions, and expected learning outcomes for the participants.

During the inaugural session, Dr. Aparna N., Deputy Director, Management Systems Area (MSA), NRSC, Shri G. Srinivasa Rao, Deputy Director, Earth and Climate Sciences Area (ECSA), NRSC, and Shri. K. H. Rao, Former Group Director, Ocean Science Group, NRSC addressed the participants and highlighted the growing importance of satellite-based Earth observation for ocean monitoring and environmental applications. Dr. R. P. Singh, Director, CSSTEAP (IIRS, Dehradun), addressed the gathering in online mode and emphasized the importance of international cooperation and training programmes in strengthening regional capabilities in space technology applications.

The Chief Guest, Dr. Balakrishnan Nair, Director of the Indian National Centre for Ocean Information Services (INCOIS), delivered the inaugural address and highlighted the importance of satellite-based ocean observation systems and operational ocean services in supporting fisheries, disaster management, and coastal sustainability. He emphasized the growing role of satellite remote sensing and ocean information services in addressing regional challenges related to marine resources, climate variability, and coastal hazards.

This was followed by the Director's address by Dr. Prakash Chauhan, Director, NRSC and CSSTEAP, who welcomed the participants and highlighted the importance of capacity building in satellite remote sensing for ocean applications. He emphasized the need for strengthening regional expertise and collaboration in utilizing satellite-derived data for monitoring ocean health, supporting sustainable fisheries, and addressing climate change impacts. The course, with participants from several Asia-Pacific countries, reflects a shared commitment to enhancing regional capabilities in space-based ocean observation and ocean resource management. The inaugural programme concluded with a vote of thanks by Dr. Rajesh S., Course Coordinator. The list of participating officials from Asia-Pacific countries is provided in the table below.

S.No.	Participants name	Country
1.	Mr. Andi Ibrahim	Indonesia
2.	Mr. Teguh Prayogo	Indonesia
3.	Mrs. Lyazat Baineva	Kazakhstan
4.	Ms. Akmaral Bauyirzhanovna KALIYEVA	Kazakhstan
5.	Mr. Abay Maxutbekov	Kazakhstan
6.	Mrs. Bayarjargal Enebish	Mongolia
7.	Ms. Bernadette Therese Villagracia Sanchez	Philippines
8.	Ms. Alyssandra Ruiz Molina	Philippines
9.	Mrs. Rambukkanage Sachini Madushani	Sri Lanka
10.	Mrs. Lankanlauge Isuri Hemalka Fernando	Sri Lanka
11.	Mr. Lebuna Peduru Dilan Chathuranga	Sri Lanka
12.	Mr. Manohar	India
13.	Mr. Anil	India
14.	Mrs. Niranjana	India
15.	Ms. Aditi	India

3. Comprehensive Training on Satellite Remote Sensing for Ocean Applications

The Satellite Remote Sensing for Ocean Applications course was meticulously designed to provide a comprehensive understanding of satellite ocean remote sensing techniques and their applications in oceanography. The program featured 29 lectures covering theoretical aspects, and 8 practical sessions with 3-hour duration each. The lectures covered foundational topics, including the principles of remote sensing, data acquisition, and the fundamentals of satellite data processing, with a specific focus on ocean applications.

Apart from in-house experts, approximately 5 experts from various other ISRO centers, leading oceanographic research centers, and academia were invited to share their vast experience in the field of ocean remote sensing. Participants were introduced to the theoretical aspects of remote sensing, such as the interaction of electromagnetic radiation with the ocean surface, algorithms for deriving oceanographic parameters such as retrieval of winds from scatterometers, sea level from altimeters, oil-spill and ship detection from SAR data, and techniques for satellite data calibration and validation.

The curriculum delved into advanced topics including:

- Ocean Color Remote Sensing and atmospheric correction techniques
- Chlorophyll-a estimation and primary productivity assessment
- Monitoring of harmful algal blooms and phytoplankton functional types
- Bio-optical algorithms for open and coastal oceans
- Synthetic Aperture Radar (SAR) applications for ocean monitoring
- Scatterometry for ocean surface wind retrieval
- Satellite altimetry for sea level and ocean circulation studies
- Sea surface temperature and salinity remote sensing
- Marine ecosystem monitoring including corals and mangroves
- Cryospheric applications of satellite remote sensing
- Ocean modeling including circulation, wave, and biogeochemical models
- Air-sea interactions and climate teleconnections
- Marine plastic detection using remote sensing
- Shoreline dynamics monitoring using high-resolution satellite data

The laboratory sessions were designed to reinforce the theoretical knowledge gained during lectures. Participants engaged in practical exercises involving data processing, product generation, and the application of satellite-derived data for ocean monitoring. They explored real-time scenarios using specialized software tools including SeaDAS, SNAP, and GrADS, with one-on-one interaction with experts at designated workstations. A robust computing facility using Virtual Machine (VM) Linux environment with 32 GB RAM and 8-Core CPU was provided to all participants for hands-on practical sessions. This hands-on training allowed participants to analyze satellite datasets and generate products such as chlorophyll-a

concentration maps, sea surface temperature fields, sea level trend analysis, and turbidity indices. Participants also received demonstrations of ISRO geoportals including Bhuvan, BHOONIDHI, and NICES, enabling them to access and utilize operational ocean products. By the end of the course, participants gained both theoretical knowledge and practical expertise, enabling them to independently process ocean data and derive valuable insights for diverse ocean applications.

4. Program Schedule

27-10-2025 (Monday)			
Date	**Time**	**Title of the Lecture**	**Resource Person**
27-10-2025	09:30 – 10:00	Course Briefing and Introduction	
27-10-2025	10:00 – 10:30	Overview of Current & Future Remote sensing EO system Platforms and applications for Oceans	Dr. JV Thomas, ISRO HQ
27-10-2025	10:30 – 11:00	Basics of Satellite Oceanography	Dr. Rashmi Sharma, SAC
27-10-2025	11:00 – 11:15	Tea Break	
27-10-2025	11:15 – 11:45	Ground Stations Overview -ISRO's Legacy	Smt. G. Uma Devi, Dy. Dir, NRSC (Retd.)
27-10-2025	11:45 – 12:15	Satellite Data Processing for Ocean Applications (Optical and MW) and Ocean data portals (Bhoonidhi)	Mrs. T. Radhika, GH, ODPG, NRSC
27-10-2025	12:15 – 12:45	Bhuvan Geoportal overview	Mr Arulraj, GH, BGWSG
27-10-2025	12:45 – 13:15	Lab session – Demonstration of ISRO Data Portals	Dr A Lesslie, Head, BWSDD
27-10-2025	13:15 – 14:15	Lunch	
27-10-2025	14:15 – 15:45	Inaugural Program	
27-10-2025	15:45 – 17:00	Lab session – Demo on Data formats and visualization, Project Initiation for the participants	Mr. Devi Prasad, OSG, NRSC

			Mr. Shashank, OSG, NRSC
28-10-2025 (Tuesday)			
28-10-2025	09:45 – 10:45	Satellite Ocean Colour Remote Sensing: Atmospheric Correction and Geophysical parameter retrieval	Mr. M Suhail, OSG, NRSC
28-10-2025	11:00 – 12:00	Bio-optical algorithms for open and coastal oceans -Emphasis on in-situ measurements	Mr. Devi Prasad, OSG, NRSC
28-10-2025	12:00 – 13:00	Satellite Remote Sensing for Sustainable Marine Fisheries Management – Primary Productivity	Shri. K H Rao (Retd. GD-OSG) Mr. G Abhinav, OSG, NRSC
28-10-2025	14:00 – 15:30	Introduction to NICES, OC-CCI, Bhoonidhi Chl-a products	Mr. Devi Prasad, OSG, NRSC Mr. M Suhail, OSG, NRSC Mr. Shadab, ECSA, NRSC
28-10-2025	15:45 – 17:00	Lab session – Applications of OCRS (PFZ)	Mr. G Abhinav, OSG, NRSC
29-10-2025 (Wednesday)			
29-10-2025	09:45 – 10:30	Satellite Altimetry for Oceanographic Applications	Mr. M Shiva Shankar, OSG, NRSC
29-10-2025	10:45 - 11:30	Synthetic Aperture Radar (SAR) for Ocean Applications	Dr. M Swapna, OSG, NRSC
29-10-2025	11:30 – 12:15	Ocean Surface Vector Winds from Scatterometers and Applications	Mr. Shashank, OSG, NRSC
29-10-2025	12:15 – 13:00	Remote sensing of Ocean Surface Currents	Dr. S Rajesh, OSG, NRSC
29-10-2025	14:00 – 15:30	SAR data products, Softwares and tools	Dr. M Swapna, OSG, NRSC Mr. Shashank, OSG, NRSC
29-10-2025	15:45 – 17:00	SAR data products, Softwares and tools	Dr. M Swapna, OSG, NRSC Mr. Shashank, OSG, NRSC
30-10-2025 (Thursday) Visit to NRSC ORF (09:00 to 14:00 hrs) & INCOIS (14:00 to 17:30 hrs)			
31-10-2025 (Friday)			
31-10-2025	09:45 – 10:45	Remote Sensing of Sea Surface Temperature and Salinity	Dr. M Swapna, OSG, NRSC
31-10-2025	11:00 – 12:00	Monitoring Shoreline Dynamics using High Resolution Satellite Data	Dr. Ibrahim Shaik, OSG, NRSC
31-10-2025	12:00 – 13:00	Ocean Colour Remote Sensing and Applications: Blooms, PFTs and PSCs	Ms. Reema Mathew, OSG, NRSC

31-10-2025	14:00 – 15:30	Lab session – Ocean Colour Data Applications (Bloom Identification, Sediment Dynamics)	Ms. Reema Mathew, OSG, NRSC
31-10-2025	15:45 – 17:00	Lab session – Bio optical algorithms (MBR) and Validation of OCRS products	Mr. Devi Prasad, OSG, NRSC Mr. M Suhail, OSG, NRSC
01-11-2025 (Saturday) & 02-11-2025 (Sunday) Local Sight Seeing Visits			
03-11-2025 (Monday)			
03-11-2025	09:30 – 10:15	Air-Sea Interactions	Dr. Ramana M V, ECSA, NRSC
03-11-2025	10:30 – 11:00	Marine Ecosystems: Corals & Mangroves	Dr. Tanumi Kumar, RC-E, NRSC
03-11-2025	11:00 – 11:30	Satellite Remote Sensing for Cryospheric Applications	Mrs. Jaya Thakur, ECSA, NRSC
03-11-2025	11:30 – 12:00	Satellite Remote Sensing for Ocean Biogeochemistry Applications	Dr. Rajdeep Roy, RC-E, NRSC
03-11-2025	12:00 – 13:00	IMGEOS & CRL-A visit	
03-11-2025	14:00 – 15:30	Lab session – SAR Applications – Ship detection, Oil spill demonstration	Dr. M Swapna, OSG, NRSC Mr. M Suhail, OSG, NRSC
03-11-2025	15:45 – 17:00	Lab session – SAR Applications – Ship detection, Oil spill demonstration	Dr. M Swapna, OSG, NRSC Mr. M Suhail, OSG, NRSC
04-11-2025 (Tuesday)			
04-11-2025	09:45 – 10:45	Ocean circulation Modelling: Basics, Remote Sensing Applications	Dr. R K Nayak, ECSA, NRSC
04-11-2025	11:00 – 12:00	Ocean Wave Modelling: Basics, & Applications	Mr. K Srinivasarao, OSG, NRSC
04-11-2025	12:00 – 13:00	Ocean Biogeochemical Modelling	Mr. M Suhail, OSG, NRSC
04-11-2025	14:00 – 15:30	Lab session – PSCs and PFTs	Ms. Reema Mathew, OSG, NRSC Mr. M Suhail, OSG, NRSC
04-11-2025	15:45 – 17:00	Lab session – NICES data utilization for climate studies (TCHP)	Mr. K Srinivasarao, OSG, NRSC
05-11-2025 (Wednesday)			
05-11-2025	09:45 – 10:45	Application of remote sensing tools for the estimation of plastic litter from oceans	Dr. Gopala Krishna Darbha, IISER-K

05-11-2025	11:00 – 12:00	Cal-Val for Ocean Colour Missions	Dr. Ch Jayaram, RC-E, NRSC
05-11-2025	12:00 – 13:00	Remote Sensing and GIS for Coastal Ocean-ography	Dr. Debashish Mitra, IIRS
05-11-2025	14:00 – 15:30	Lab session – Project work	OSG, NRSC
05-11-2025	15:45 – 17:00	Lab session – Project work	OSG, NRSC
06-11-2025 (Thursday)			
06-11-2025	09:45 – 10:45	Tropical Cyclones and Ocean Circulations	Mrs. Neetu Chacko, RC-E, NRSC
06-11-2025	11:00 – 12:00	Application of Satellite data: Role of Oceans in Climate Scale Teleconnections	Dr. J Choudhury, IITM Pune
06-11-2025	12:00 – 13:00	NICES – Emphasis on Ocean ECVs	Mrs. C Jayasree, ECSA, NRSC Dr. PV Nagamani, OSG, NRSC
06-11-2025	14:00 – 15:30	Lab session – Project work	OSG, NRSC
06-11-2025	15:45 – 17:00	Lab session – Project Work	OSG, NRSC
07-11-2025 (Friday)			
07-11-2025	10:00 – 13:00	Project Presentation	OSG, NRSC
07-11-2025	14:30 – 16:00	Feedback and concluding session	OSG, NRSC

5. Industry Visits: Outreach Facility & Balanagar, NRSC, and INCOIS

As part of the Satellite Remote Sensing for Ocean Applications (SRSOA) course, an industry visit was organized on 30 October 2025. During the morning session, the participants visited the NRSC Outreach Facility (ORF) at the Jeedimetla campus. The facility serves as an important platform for promoting awareness and capacity building in the field of space technology and remote sensing. Through interactive displays, presentations, and audio-visual demonstrations, the participants were introduced to the activities of the National Remote Sensing Centre and the diverse applications of Earth Observation satellites. The visit highlighted how satellite-based geospatial information supports various sectors such as agriculture, water resources, disaster management, urban planning, and environmental monitoring. The Outreach Facility plays a significant role in bridging the gap between space technology developers and end-users by disseminating knowledge to students, researchers, government agencies, and other stakeholders. It also supports training and educational initiatives aimed at enhancing the effective utilization of remote sensing

data and geospatial technologies. The visit provided the participants with a broader understanding of NRSC's efforts in promoting the societal benefits of space-based Earth observation.

After that, the participants proceeded to the NRSC Balanagar campus. During the visit, the participants had the opportunity to interact with the Director, NRSC. The interaction provided insights into the role and activities of the National Remote Sensing Centre in satellite data reception, processing, and dissemination for various Earth observation applications. The discussion also highlighted NRSC's contributions to national and international remote sensing programmes and the growing importance of satellite-based geospatial information in supporting decision-making across multiple sectors. The interaction enabled participants to gain a better understanding of NRSC's operational capabilities and its role in advancing space-based applications for societal and environmental benefits.

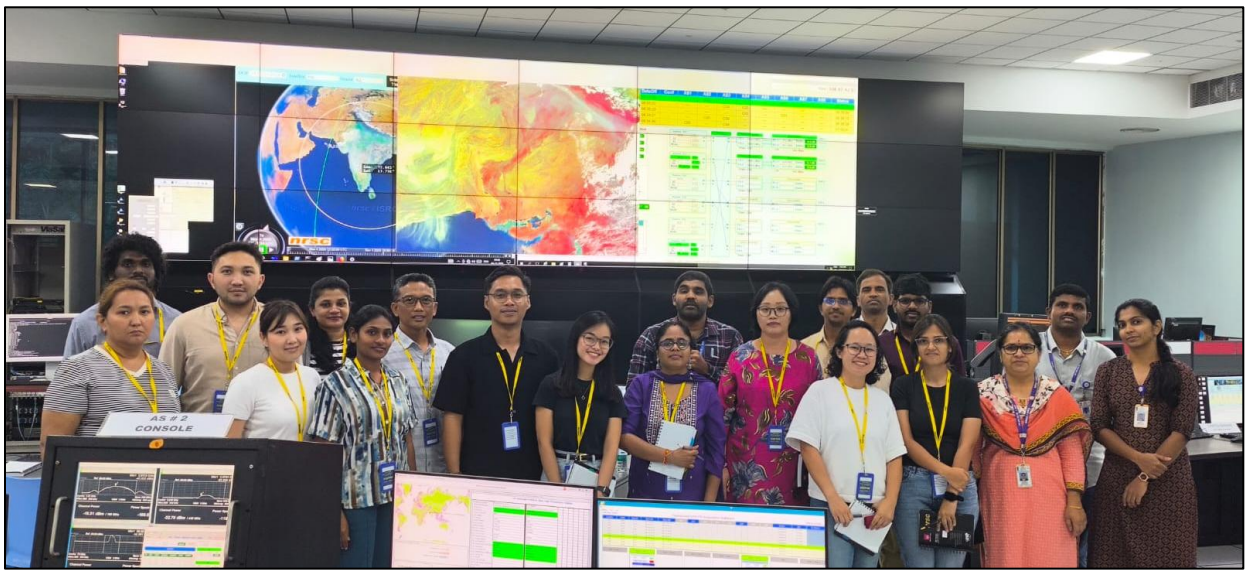
The afternoon session included a visit to the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, where participants gained an overview of the organization's role in operational oceanography. The visit introduced the mission and activities of INCOIS in providing accurate and timely ocean information and advisory services to support societal needs, scientific research, and maritime operations. Presentations highlighted several operational services offered by INCOIS, including the Tsunami Early Warning System, Potential Fishing Zone (PFZ) advisories, Ocean State Forecasts (OSF), marine fishery resource mapping, and ocean hazard warnings such as high wave alerts, swell surge warnings, and storm surge forecasts. Participants learned how satellite-derived parameters such as sea surface temperature and chlorophyll concentration are used to generate PFZ advisories that assist the fishing community in identifying productive fishing zones. The Ocean State Forecast service provides predictions of wave conditions, winds, and ocean currents, which are essential for maritime safety and coastal management. The visit also highlighted Calibration and Validation (Cal/Val) activities, where satellite observations are validated with in-situ measurements to improve the accuracy of oceanographic datasets. In addition, participants were introduced to the advanced data processing and visualization facilities at INCOIS that transform real-time ocean observations into operational products and decision-support services. The visit emphasized the synergy between satellite technology and operational oceanography, reinforcing the participants understanding of practical applications and how scientific advancements can address societal and environmental challenges.

Visit to IMGEOS and CRL-A Facility of NRSC

On 03 November 2025, the participants visited the Integrated Multi Mission Ground Segment for Earth Observation Satellites (IMGEOS) facility at the NRSC Shadnagar campus. The visit provided an overview of the ground segment infrastructure used for satellite data reception and mission operations. Participants

were introduced to the data acquisition systems that receive Earth observation satellite data and the process of generating satellite tracking and acquisition schedules. The visit helped participants understand the operational aspects of ground stations that support multiple ISRO Earth observation missions.

The participants also visited the Climate Research Laboratory for Atmosphere (CRL-A) at the Shadnagar campus. The facility conducts continuous measurements of greenhouse gases, aerosols, radiation, precipitation, and other meteorological parameters to support climate research. These precise ground-based observations help in developing reliable climate datasets and also play an important role in validating satellite-derived atmospheric and climate measurements.



6. Enhancing Learning beyond the Classroom

As part of the NRSC-CSSTEAP program, educational tours were organized to Ramoji Film City and historical landmarks in and around Hyderabad on November 01-02, 2025. These visits were designed to provide participants with a unique blend of learning, cultural exposure, and relaxation, complementing the intensive training sessions. Ramoji Film City, recognized as the world's largest integrated film studio

complex, offered participants insights into advanced filming technologies, large-scale production environments, and innovative design methodologies. The guided tour showcased how visual storytelling and technology can synergize, reflecting parallels in remote sensing and geospatial visualization. Exploration of historic destinations, such as the iconic Charminar, Golconda Fort, and the Salar Jung Museum, allowed participants to delve into Hyderabad's rich heritage, architecture, and history. These experiences helped international attendees understand the socio-cultural fabric of India, fostering cross-cultural appreciation and mutual understanding. Such tours not only provided a break from technical sessions but also enhanced learning by linking technology, culture, and history. They promoted team-building, global networking, and a comprehensive understanding of India, enriching participants professional and personal perspectives.

7. Project Work and Presentations

A significant component of the course was dedicated to hands-on project work, where participants were divided into 4 teams with approximately 4 members each. Two full sessions on November 05 and 06, 2025, along with additional time, were dedicated to project development. The project topics covered diverse ocean applications:

1. Potential Fishing Zone (PFZ) - Analysis of satellite-derived parameters for identifying productive fishing areas
2. Algal Bloom - Detection and monitoring of harmful algal blooms using ocean color remote sensing
3. Oil Spill - Detection and monitoring of oil spills using SAR data
4. Tropical Cyclone Heat Potential (TCHP) - Assessment of ocean thermal energy content supporting tropical cyclone intensification

These projects allowed participants to apply the theoretical knowledge and practical skills acquired during the course to real-world oceanographic scenarios. Participants worked collaboratively, utilizing various satellite datasets, processing tools, and analytical techniques demonstrated during the practical sessions.

8. Concluding Session

On 07 November 2025, the Satellite Remote Sensing for Ocean Applications course concluded with project presentations by the participants, followed by a feedback and valedictory session. During this session, participants presented their individual or group projects, demonstrating the knowledge and skills gained throughout the course. The presentations covered a range of topics related to satellite-based ocean observation, including applications of PFZ, SAR data for oil spill detection, TCHP and Algal Bloom detection. These presentations reflected the participant’s ability to apply theoretical concepts to practical problems related to ocean monitoring and management.

The feedback session provided an opportunity for participants and faculty members to exchange views and suggestions regarding the course content, structure, and learning outcomes. The valedictory session was graced by Dr. Aparna N., Deputy Director, Management Systems Area (MSA), NRSC, and Shri G. Srinivasa

Rao, Deputy Director, Earth and Climate Sciences Area (ECSA), NRSC, who addressed the participants and appreciated their active participation and dedication during the training programme. They highlighted the importance of satellite remote sensing in understanding ocean processes and encouraged the participants to apply the knowledge gained during the course in their respective organizations. Certificates of completion were presented to the participants, marking the successful culmination of the course and recognizing their successful completion of the training programme.

The programme concluded with a vote of thanks by Dr. Rajesh S., Course Coordinator, who expressed gratitude to the distinguished guests, faculty members, organizers, and participants for their valuable contributions and active engagement in making the training programme a success. Participants were also encouraged to remain connected and continue collaboration in advancing satellite-based ocean applications in their respective countries.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