आईआईआरएस दूरस्थ शिक्षा कार्यक्रम

IIRS Distance Learning Programme

उपलब्धियां/ Achievements 2020

iirs

भारतीय सुदूर संवेदन संस्थानभारतीय अंतरिक्ष अनुसंधान संगठनअंतरिक्ष विभाग, भारत सरकार देहरादून

Indian Institute of Remote Sensing
Indian Space Research Organization
Department of Space, Government of India
Dehradun

Motivation:

❑ The programme attracts young generation to build their career in the area of space science and its applications. IIRS outreach program was initiated in year 2007 with 312 participants from twelve universities in India.

❑ IIRS has developed its own indigenous active learning platform i.e. Electronic Collaborative Learning and Knowledge Sharing System (E-CLASS).

❑ The content of IIRS Distance Learning Program focuses on teaching Basics along with technological advancement in the field of RS, GIS, GNSS and its applications. The sessions are interactive and majority of such sessions/lectures in DLP courses are delivered by subject experts from IIRS and guest faculty from other ISRO centres.

Objectives:

Capacity Building at Mass Level for Enhanced Utilization of Space Technology through:
- ✓ Live & Interactive mode of online education &
- ✓ E-learning/MOOC mode of online courses.
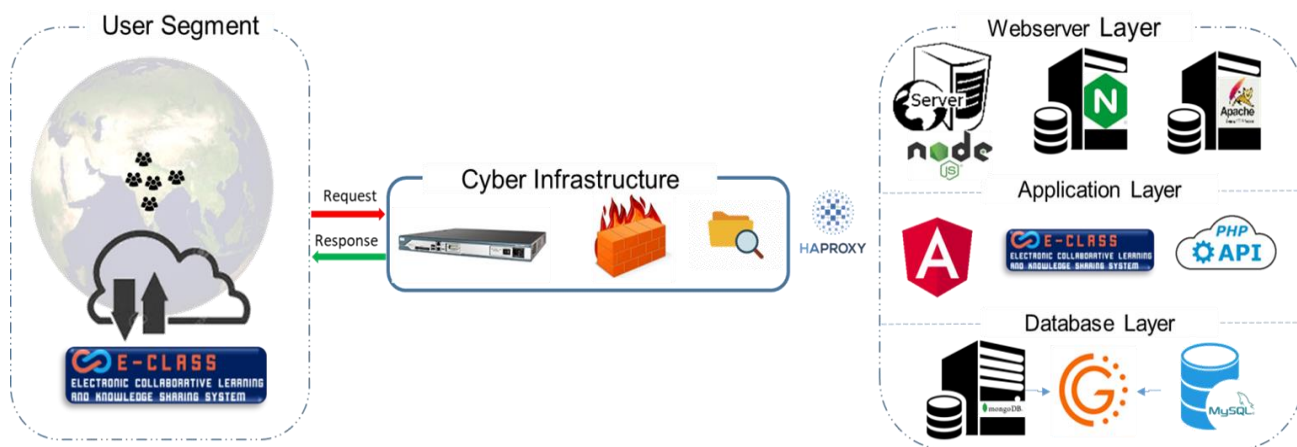
Potential Users:

❑ Students
❑ Professionals from Academic Institutions
❑ User Departments in the field of Geospatial Technology & Earth Observation (EO)

Live & interactive Mode of Online Course Delivery

❑ IIRS online courses are an innovative approach for mass scale training and capacity building on geospatial technology and its applications.

❑ Currently, IIRS conducts its online course in two modes i.e. Live & interactive mode and e-learning/MOOC mode.

❑ IIRS has setup a network of academic and professional Institutions in India where each network Institute is known as "IIRS Nodal Centre (INC)". Currently 2669 nodal centers are networked with IIRS.

Technology Development- E-CLASS:

❑ E-class Platform Is Designed As A Multitier Architecture With The Three Major Segments: Viz. User, Cyber And Application.
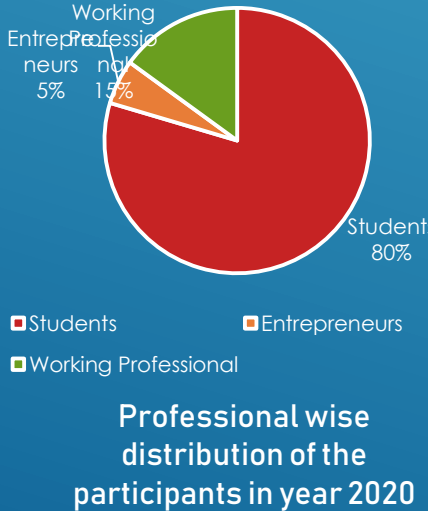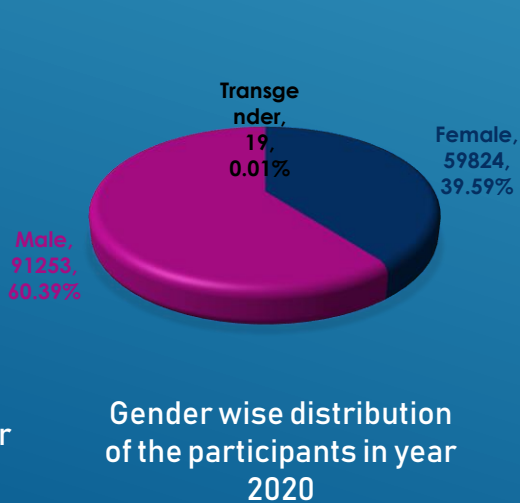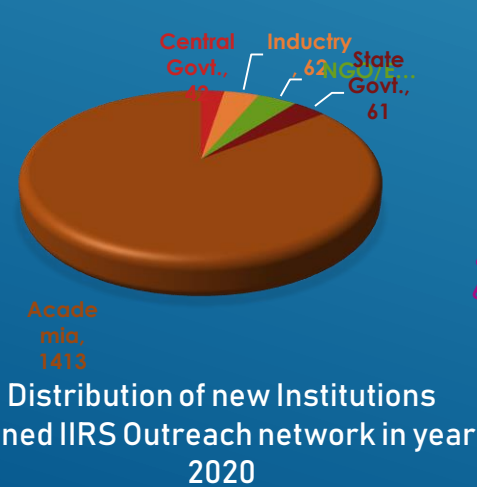

System Architecture of E-CLASS platform
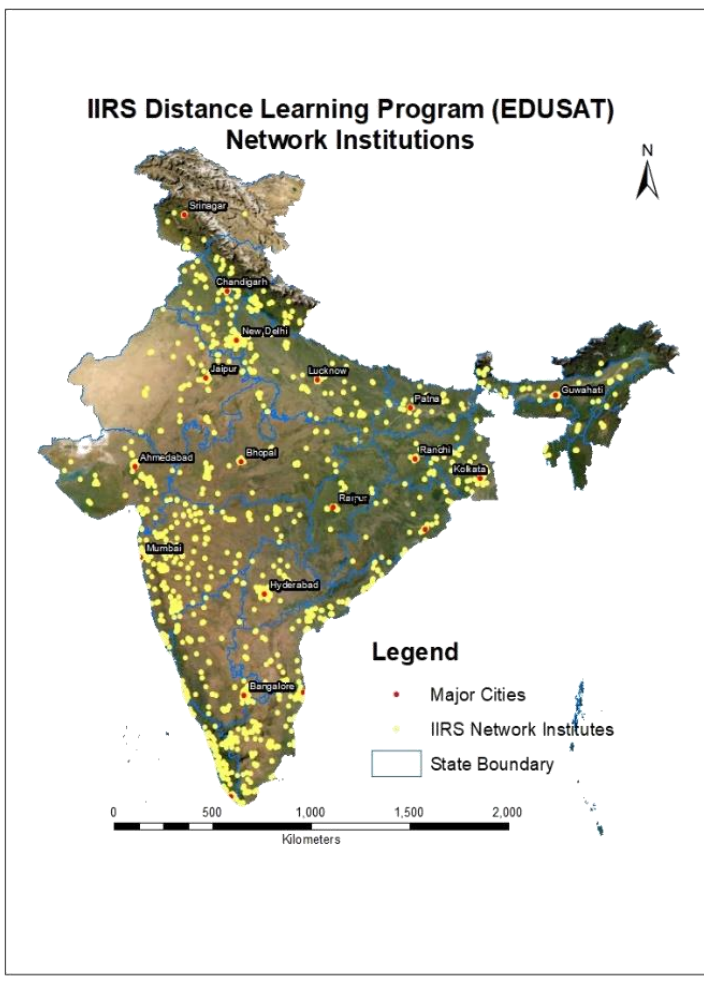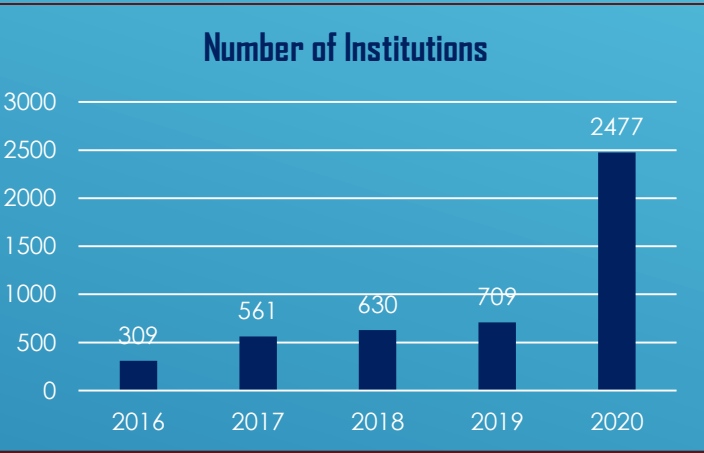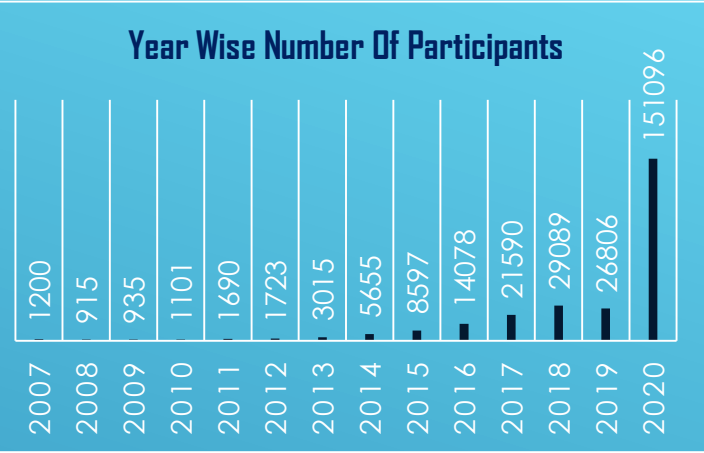
Major Achievements of IIRS Outreach Program

- 29 online courses/full day workshops/webinar series
- More than 1.5 L participants
- 1650 new networked Institutions
- Developed advanced E-Class platform to accommodate large number of participants
- Individual logins and new method of attendance monitoring
- Introduced new methods for evaluation
- Special courses during Covid-19 induced lockdown on Basics and Advanced concepts in Geospatial technology and Applications
- Special online course for university teachers
- MOOC for International participants
- Developed e-Learning content for RS GIS applications in thematic disciplines

Distribution of different courses and participants in 2020

Type of Course	Number of Participants	Number of Courses
Advance Topic Course	83086	11
Basic Course	46342	5
Full Day Workshop	3777	2
International Webinar Series- WGCapD	1660	1
Special Course During Lockdown	11415	3
Special Customized Course	4816	7
Grand Total	151096	29

Distribution of new Institutions joined IIRS Outreach network in year 2020

Central Govt., 49 Inductry 62 NGO/... State Govt., 61 Acade mia, 1413

Gender wise distribution of the participants in year 2020

Transgender, 19, 0.01% Female, 59824, 39.59% Male, 91253, 60.39%

Professional wise distribution of the participants in year 2020

Working Professional 15% Entrepreneurs 5% Students 80%

■ Students ■ Entrepreneurs ■ Working Professional

Growth Of The Participants In IIRS Online Courses

Year Wise Number Of Participants

Year	Participants
2007	1200
2008	915
2009	935
2010	1101
2011	1690
2012	1723
2013	3015
2014	5655
2015	8597
2016	14078
2017	21590
2018	29089
2019	26806
2020	151096

Number of Institutions

Year	Institutions
2016	309
2017	561
2018	630
2019	709
2020	2477

IIRS Distance Learning Program (EDUSAT) Network Institutions

Legend
- Major Cities
- IIRS Network Institutes
- State Boundary

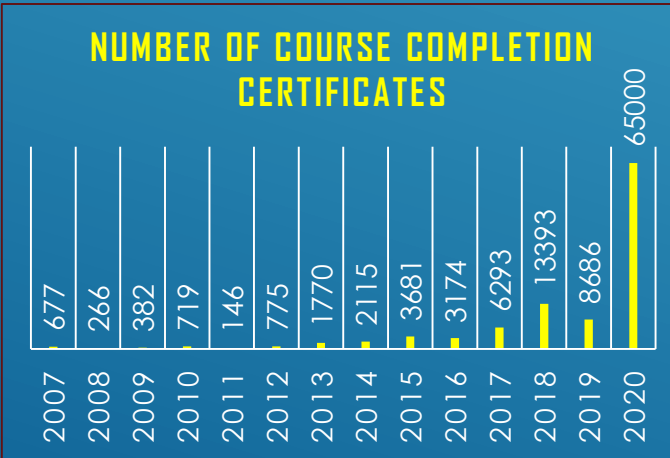0   500   1,000   1,500   2,000
Kilometers

Impact of COVID-19 in Online Training- Challenges & Opportunity

❑ Individual logins and student Monitoring Approach: During the lockdown as colleges and institute are closed indefinitely, each participant through registered through a network institute has been provided with individual login to access the live sessions.

❑ IIRS team has quick redesign the new software system architecture of E-CLASS platform to accommodate large number of simultaneous logins during the live sessions. The cluster based system architecture was adopted to enhance the performance of the system.
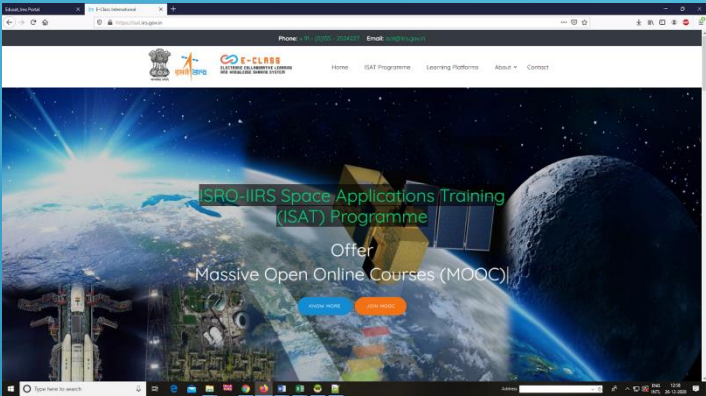
❑ Change in Examination policy: IIRS management has decided to suspend examination for IIRS DLP courses till further notice. The online examinations were available as self-assessment system and learners were encouraged to participate in the examination.

❑ Conduction of Live Quiz as Class Activity: The random quiz was conducted after 20-25 minutes of live sessions. The participant's activity and response is recorded in the server for further evaluation purposes.

NUMBER OF COURSE COMPLETION CERTIFICATES

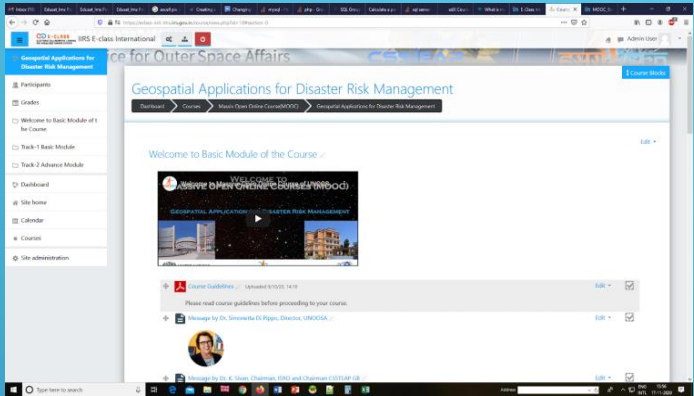| Year	Certificates
2007	677
2008	266
2009	382
2010	719
2011	146
2012	775
2013	1770
2014	2115
2015	3681
2016	3174
2017	6293
2018	13393
2019	8686
2020	65000

ISRO- IIRS Space Application Training (ISAT) Programme

- In the recent past, IIRS has conducted few online courses for International users under Working Group on Capacity Building and Data Democracy (WGCapD) of Committee on Earth Observation System (CEOS).
- IIRS has announced International Distance learning programme under "ISRO-IIRS Space Application Training (ISAT)"programme in year 2020.
- The Massive Open Online Courses (MOOC) under ISAT programme was developed in collaboration with United Nations Office for Outer Space Affairs and the Centre for Space Science and Technology Education for Asia and the Pacific (Affiliated to the United Nations) on "Geospatial Applications for Disaster Risk Management". And was launched on 13 October 2020.

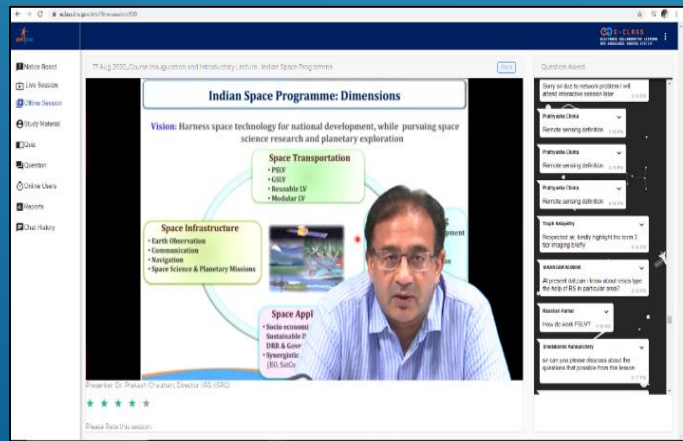Home page of ISAT web portal-
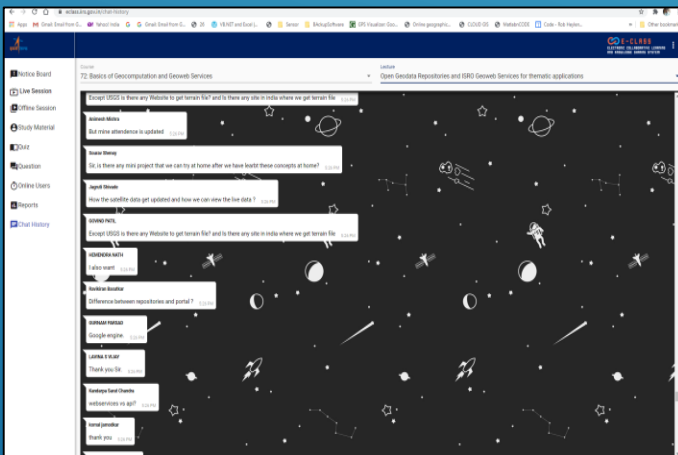https://isat.iirs.gov.in

LMS Dashboard of MOOC

Director UNOOSA and Chairman ISRO is delivering the session in MOOC

Innovative Online Learning Tools

Reception of live lecture
through E-CLASS platform

Lecture/Course specific Chat
box interface for queries