SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, Tirupati - 517102

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

74th IIRS Outreach Programme
on
"Satellite based Navigation: A Journey from GPS to Mobile Phone Platform"

By Shiva Reddy, P. K. C Ray, Ashutosh Srivastava, Suresh Kannaujiya,
Indian Institute of Remote Sensing, Dehradun

01 – 12 March, *2021*

The Department of Electronics and Communication Engineering has organized a 10-Day Outreach Programme conducted by Indian Institute of Remote Sensing, Dehradun during 01 – 12 March, 2021. The target audience are the faculty and students of various disciplines of Sree Vidyanikethan Educational Trust, Tirupati.

Today large amount of geo spatial data acquired from various sources and processed for various earth resources studies. These geo spatial datasets for processing require secondary data in the form of geo tagged samples, GCPs and ground based large scale maps. Now a days geo tagged samples, GCPs and ground based large scale maps can be acquired using GNSS technology. In present scenario GNSS have various measurement and positioning techniques which can be applied as per requirement in different applications. Apart from its applications in precise positioning GNSS has applications in various areas like TEC estimation Earth quake studies, Atmospheric studies and Mobile GIS etc.

Following topics will be covered in this course

- Introduction to GNSS
- Satellite Based Navigation Systems (IRNSS etc)
- GNSS Measurement and Positioning Techniques
- GNSS Receivers GNSS Errors
- Satellite based Augmentation System (GAGAN etc)
- Application of GNSS in location based services
- Application of GNSS in Geosciences
- Application of GNSS in Atmospheric Studies
- Advanced GNSS data processing

Finally, on 12.03.2021, a panel discussion with all the mentors is conducted for interaction with the participants. Five participants have attended this programme.

Dr. V. V. Satyanarayana Tallapragada, Associate Professor has coordinated this event under the guidance of Dr. N. Gireesh, Professor and Head, Department of Electronics and Communication Engineering.

Convener

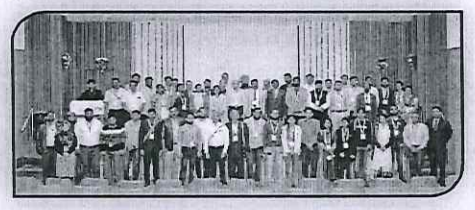
IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially to 2500+ network institutes. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- Forest Resource Professionals
- State Forest Departments/Forest Training Academies
- Research Institutes
- Geospatial Industries
- NGOs

Feedback Mechanism

IIRS has conducted eleven workshops in 2007, 2009, 2010, 2013, 2014, 2015, 2016.2017,2018,2019 and 2020 to take feedback from participating institutions to improve the quality of future courses.



Feedback session during IIRS User Interaction Meet (IUIM)-2020

Awards

IIRS has received national awards for excellence in training for outreach and e-learning programme during 1st National Symposium on Excellence in Training conducted during April 11-12, 2015 in New Delhi by Department of Personnel & Training (DoPT), Govt. of India in collaboration with United Nations Development Programme (UNDP).

About IIRS

Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organisation (ISRO), Department of Space, Govt. of India is a premier Training and Educational Institute set up for developing trained professionals in the field of Remote Sensing, Geoinformatics and GNSS Technology for Natural Resources, Environmental and Disaster Management. Formerly known as Indian Photo-interpretation Institute (IPI), founded in 1966, the Institute boasts to be the first of its kind in entire South-East Asia. While nurturing its primary endeavour to build capacity among the user community by training mid-career professionals, the Institute has enhanced its capability and evolved many training and education programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia.

IIRS also conducts e-learning programme on Remote Sensing and Geoinformation Science (*http://elearning.iirs.gov.in*).

Contact Details

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Head, GID

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Course Coordinator

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Programme Coordinator
IIRS Outreach Programme

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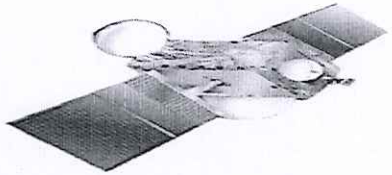
74th IIRS Outreach Programme



Satellite based Navigation: A Journey from GPS to Mobile Phone Platform

March 1-12, 2021

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Organised by

Indian Institute of Remote Sensing
Indian Space Research Organisation
Department of Space, Govt. of India
Dehradun

www.iirs.gov.in

About the Course

Today large amount of geo-spatial data acquired from various sources and processed for various earth resources studies. These geo-spatial datasets for processing require secondary data in the form of geo-tagged samples, GCPs and ground based large scale maps. Now a days geo-tagged samples, GCPs and ground based large scale maps can be acquired using GNSS technology. In present scenario GNSS have various measurement and positioning techniques which can be applied as per requirement in different applications. Apart from its applications in precise positioning GNSS has applications in various areas like TEC estimation & Earth quake studies, Atmospheric studies and Mobile GIS etc.

The present course is designed in such a way that first week lectures are dedicated to the basic information about the GNSS leading to studies carried out in different areas in second week.

We invite you to attend this training program on Satellite based Navigation Technology: A Journey from GPS receivers to mobile phone. Course scheduled from March 1-12, 2021.

Curriculum

- Introduction to GNSS
- Satellite Based Navigation Systems (IRNSS etc)
- GNSS Measurement and Positioning Techniques
- GNSS Receivers GNSS Errors
- Satellite based Augmentation System (GAGAN etc)
- Application of GNSSin location based services
- Application of GNSS in Geosciences
- Application of GNSS in Atmospheric Studies
- Advanced GNSS data processing

Expected Outcome

At the end of this course participant must be able to understand how to use GNSS receivers with different measurement and positioning techniques as per application requirement

Target Participants

The candidates who want to participate in the course should be a student of final year undergraduate course or postgraduate course (any year).Technical/Scientific Staff of Central/State Government/Faculty/researchers at university/institutionsin working in the fields of GNSS technology and its applications are also eligible to apply for this course. Applications of participants have to be duly sponsored by university/institute and forwarded through coordinators from respective centres. Users receiving programmes under CEC-UGC/ CIET networks can also participate. Institutions on high speed National Knowledge Network (NKN).

Course Study Material

Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through e-class. Video lectures will also be uploaded on e-class (https://www.eclass.iirs.gov.in/login).

Course Fee

There is no course fee for attending this programme.

Course Registration

- Course updates and other details will be available on URL- http://www.iirs.gov.in/Edusat-News/
- To participate in this programme the interested organizations/ universities/ departments/ Institutes has to identify a coordinator at their end. The identified coordinator will register online his/her Institute as nodal center in IIRS website.
- All the participants have to register online through registration page by selecting his/her organization as nodal center.

Course Funding & Technical Support

The programme is sponsored by Indian Space Research Organisation, Department of Space, Government of India.

Programme Reception

Programme can be received through e-class platform of IIRS-ISRO using internet connectivity. No specific hardware/software required. However, it is recommended good internet connectivity at user end. To run the programme in class room, following hardware will be required:

- Desktop computer with web camera microphone and output speakers or laptop with microphone camera and output speaker.
- Large display screen/projector/TV.

Important links

Courses updates and other details will be available on URL – https://www.iirs.gov.in/EDUSAT-News

To participate in this programme the interested organisations/universities/departments/institutes have to identify coordinator at their end. The identified coordinator will register online his/her institute as nodal centre in IIRS website (https://elearning.iirs.gov.in/edusatregistration/coordinator)

All the participants have to register online through registration page by selecting his/her organization as nodal centre. https://elearning.iirs.gov.in/edusatregistration/student

Award of Participation Certificate

Working Professionals and Students: Based on 70% attendance.

There are limited number of seats.
Registration will be done on first come first serve basis

74th IIRS Outreach Programme Schedule

"Satellite based Navigation: A Journey from GPS to Mobile Phone Platform"

March 1-05, 2021

Sl. No.	Topics	Dates
1	Introduction to GNSS	01-03-2021 1600 to 1730 hrs
2	Satellite Based Navigation Systems (IRNSS etc)	02-03-2021 1600 to 1730 hrs
3	GNSS Measurement and Positioning Techniques	03-03-2021 1600 to 1730 hrs
4	GNSS Receivers GNSS Errors	04-03-2021 1600 to 1730 hrs
5	Satellite based Augmentation System (GAGAN etc)	05-03-2021 1600 to 1730 hrs

March 8-12, 2021

Sl. No.	Topics	Dates	Faculty (Mr./Dr.)
1	Application of GNSS in location based services	08-03-2021 1600 to 1730 hrs	Shiva Reddy
2	Application of GNSS in Geosciences	09-03-2021 1600 to 1730 hrs	P. K. C. Ray
3	Application of GNSS: Atmospheric Studies (Session-1)	10-03-2021 1600 to 1640 hrs	Ashutosh Srivastava
4	Application of GNSS: Geophysical parameters retrieval (Session-II)	10-03-2021 1650 to 1730 hrs	Ashutosh Srivastava
	Mahashivratri (Holiday)	11-03-2021	
5	Advanced GNSS data processing	12-03-2021 1600 to 1730 hrs	Suresh Kannaujiya

Dr. V. V. Satyanarayana T

74- IIRS Outreach Programme on Satellite based Navigation: A Journey from GPS to Mobile Phone Platform

View Student | Attendance | Attendance Status | Study Material | Download Certificates

Attendance Record For Course On Geospatial Technology For Disaster Risk Reduction-One Day Online Workshop

Show 10 entries Search:

Registration Number	Name	Total Sessions	No. of sessions attended	%ge of Attendance	Elligibility for Examination/Certificate
202174685326	DR. V V SATYANARAYANA TALLAPRAGADA	9	8	88.89	Yes
202174685634	MR. SANTHOSH KUMAR	9	8	88.89	Yes
202174723090	MR. SHAIK MD NOOR UL AMEEN	9	8	88.89	Yes
202174723554	MS. JAGATAP MANISHA BAI	9	8	88.89	Yes
202174724814	MR. SHAIK KHALID FAYAZ	9	8	88.89	Yes

Showing 1 to 5 of 5 entries

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