

IIRS ISRO Outreach Programme on
66- IIRS ISRO Outreach Programme on "Global Navigation Satellite System"
(Human Resource Development Center, Integral University, Lucknow)
September 14 to 25, 2020.

Human Resource Development Centre (HRDC), Integral University Lucknow is one of the Remote Center of Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Govt. of India, Dehradun, India. Human Resource Development Centre, Integral University, Lucknow had successfully organized the 66- IIRS ISRO Outreach Programme on "Global Navigation Satellite System" from 14 to 25-Sep-2020 for working professionals and students in association with Indian Institute of Remote Sensing, Indian Space Research Organization, Department of Space, Govt. of India, Dehradun.

Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organization (ISRO) is a premier Training and Educational Institute set up for developing trained professionals in the field of Remote Sensing, Geo Informatics 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.

Prime focus of 66-IIRS ISRO Outreach Programme was Introduction to GPS and GNSS, GPS receivers, processing methods, errors and accuracy, Satellites based Augmentation systems GPS Aided and GEO Augmented Navigation (GAGAN) and Indian Regional Navigation Satellite System (IRNSS).

The technical sessions constituted of a wide variety of topics taken by a team of expert's viz.:

S. No.	Date	Topic	Resource Person	Link of material
1.	14 September, 2020	Introduction to GPS and GNSS	Dr. Ashutosh Bhardwaj	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmSW50cm9kdWN0aW9uIHRvIEdQUyBhbmQgR05TUyBJbnRlcmFjdGl2ZSBTZXRzaW9uJiBEci4gQXNodXRvc2ggQmhhcmR3YWomU1RpSWozTk9Qdk0mMjAyMC0wOS0xNA==
2.	15 September, 2020	GPS receivers, processing methods, errors and accuracy	Dr. Ashutosh Bhardwaj	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmR1BTRHJlY2VpdmVycywgHjVY2Vzc2luZyBtZXRob2RzLCBlcnJvcnMgYW5kIGFjY3VyYWN5JkRyLiBBc2h1dG9zaCBCaGFyZhdhaiZqZFRDNHJtOU92WSYyMDIwLTA5LTE1

3.	17 September, 2020	Satellites based Augmentation systems GPS Aided and GEO Augmented Navigation (GAGAN)	Dr. Ashutosh Bhardwaj	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmU2F0ZWxsaXRlcyBiYXNlZCBbdWdtZW50YXRpb24gc3lzdGVtcyAgR1BTIEFpZGVkIGFuZCBHRU8gQXVnbWVudGVkIE5hdmlnYXRpb24gKEdBROFOKSYgRHUuIEFzaHV0b3NoIEJoYXJkd2FqJmRSVFBSaG5kSThnJjIwMjAtMDktMTc=
4.	18 September, 2020	GPS signal characteristics, Data formats (broadcast, precise ephemeris)	Mrs Minikashi Kumar	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmR1BTIHNPz25hbCBjaGFyYWN0ZXJpc3RpY3MsIERhdGEgZm9ybWF0cyAoYnJvYWRjYXN0LCBwcmVjaXNlIGVwaGVvZlZlXjpcykmRHUuIEFzaHV0b3NoIEJoYXJkd2FqICYgU2hyaSBbc2hpc2ggSm9zaGkmY3FabWlyb2k4SWsmMjAyMC0wOS0xOA==
5.	21 September, 2020	Indian Regional Navigation Satellite System (IRNSS)	Shri. Kamal Kumar	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmMjEgU2VwIDIwMjBfSW5kaWFuIFJlZ2lvbmFsIE5hdmlnYXRpb24gU2F0ZWxsaXRlIFN5c3RlSAoSVJOU1MpbjRyLiBBc2h1dG9zaCBhbmQgU2hyaS4gS2FtYWwmMlcyOHd6ZFRES3cmMjAyMC0wOS0yMQ==
6.	22 September, 2020	DGPS demonstration	Dr. Poonam S Tiwari	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmMjIjU2VwIDIwMjBfREdQUyBkZW1vbN0cmF0aW9uIChQcmUcmVjb3JkZWQgZm9sbG93ZWQgYnkgbGl2SBxdWVyeSBzZXNzaW9uKSZEci4gQXNodXRvc2ggQmhhcmR3YWomclpzSVA4WFJzbzQmMjAyMC0wOS0yMg==
7.	23 September, 2020	Classification Accuracy Assessment and Change detection	Shri. Kamal Kumar	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmQWR2YW5jZSBHTINTIHByb2Nlc3NpbmcmU2hyaSBTdXJlc2ggS2FubmF1am15YSZlSV9VQ29fMFp4cyYyMDIwLTA5LTI0
8.	24 September, 2020	Advance GNSS processing	Dr. Ashutosh Bhardwaj	https://eclasscms.iirs.gov.in/watch_lecture.php?id=NjYmQWR2YW5jZSBHTINTIHByb2Nlc3Npb

			mcmU2hyaSBTdXJlc2ggS2FubmF1am15YSZlSV9VQ29fMFp4cyYyMDIwLTA5LTI1
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Overall **Eighty Nine participants** attended the program and got benefitted from the much needed and timely insights on Indian Regional Navigation Satellite System (IRNSS) and Advance GNSS processing.