

Brief Report of
One Week online Faculty Development Programme on
“Advanced Research Trends of Satellite Image Processing in Land
Surface Monitoring”
Organized by
Advanced Computing Research Lab, Department of Computer Application,
Under the aegis of
Human Resource Development Centre (HRDC), Integral University,
Lucknow
24th August to 28th August 2020

It gives me immense pleasure to inform that Advanced Computing Research Lab, Department of Computer Application, successfully organized One Week Faculty Development Programme on “**Advanced Research Trends of Satellite Image Processing in Land Surface Monitoring**” under the aegis of **Human Resource Development Centre (HRDC), Integral University, Lucknow**, from 24th – 28th August 2020. The Advanced Computing Research Lab, Department of Computer Application has been established for exploring emerging research in the field of Computer Science. The objective behind the FDP was to provide a platform for the faculty members to get awareness about recent advancement in satellite image processing and update their knowledge/skills in this domain.

The COVID-19 pandemic has facilitated the researchers, academicians and industry personals to use the virtual platform to its fullest. It has been our pleasure to host all the participants on this virtual platform. We have also been fortunate to have some of the eminent persons from academia, industry and research fraternity, working in the area of Satellite Image Processing. The panel of speakers were from the prestigious institutions such as IIIT Allahabad, NIT Kurukshetra, NIT Delhi, Graphic Era University, Dehradun and University of California, USA. The participants were very enthusiastic. **A total of 350 participants from reputed institutions, from all over India, benefitted from the weeklong FDP.** This is a huge success in itself. The participants were evaluated on the basis of online examination for certification. Certificates have been awarded to the qualified participants.

Prof. Syed Aqeel Ahmad, Director HRDC, Integral University welcomed the speakers and the participants. He highlighted the importance of attending these Faculty Development Programs. He emphasized that we make memories during such programmes and learn a lot of new things from the experience of learned resource persons.

The weeklong event consisted of 6 technical sessions deliberating on the topics ranging from the basics of ‘Remote Sensing for Contemporary Applications: A Review of Water Index based Approaches of Water Extraction’ session by Dr. Triloki Pant, IIIT Allahabad to the more advanced topics ‘A Synthetic Dataset for Validation of Soil Moisture Algorithms in Agricultural Regions’ session taken by Dr. Akanksha Garg University of California, USA and

‘SAR Polarimetry: Concepts and Applications in Land Cover Monitoring’ session taken by Dr. Pooja Mishra IIT Allahabad. She also discussed the latest research on Sentinel-1 for flood monitoring and characterization of Lunar Surface using Chandrayan-1 MiniSAR dataset for possible water-ice deposits on Lunar surface. The sessions were very enriching and brainstorming. The programme was a success in achieving its objectives of stimulating the quest for learning advanced research concepts on Satellite Image Processing.

Glimpse of the Workshop		
Date	Topic	Speaker
24/08/2020 Monday	Inauguration	Prof. Syed Aqeel Ahmad Director, HRDC Integral University
	Remote Sensing Basics for Contemporary Applications: A Review of Water Index based Approaches of Water Extraction	Dr. Triloki Pant IIT Allahabad
25/08/2020 Tuesday	Soil Parameter Retrieval with Synthetic Aperture Radar Data	Dr. Rishi Prakash Graphic Era University, Dehradun
26/08/2020 Wednesday	Data Fusion Application in Land Cover Classification Using Satellite Data	Dr. Vikas Mittal NIT Kurukshetra
27/08/2020 Thursday	SAR Polimetry: Concepts and Applications in Land Cover Monitoring	Dr. Pooja Mishra IIT Allahabad
28/08/2020 Friday	An Approach to Classify Tall Vegetation and Urban Using Deoriented PALSAR Image	Dr. Shruti Gupta NIT Delhi
	A Synthetic Dataset for Validation of Soil Moisture Algorithms in Agricultural Regions	Dr. Akanksha Garg University of California, USA
	Valedictory	Prof. (Dr.) Mohammed Haris Siddiqui Director Admissions & Academics
30/08/2020 Sunday	Online Test E Certificate has been awarded to the participants who successfully qualified the online test.	

Prof. (Dr.) Mohammed Haris Siddiqui, Director Admissions & Academics, Integral University concluded the weeklong event. In his valedictory session speech, he highlighted the benefits and usages of satellite images for land use/ land cover mapping, agriculture monitoring, flood monitoring, land surface monitoring, urban and yield prediction and precision

agriculture. He emphasized that the latest Locust attack can also be monitored by making use of satellite images.

The Integral University administration has always been supportive for providing all possible logistic support for organizing such events. The efforts of the organizing committee should also be applauded. Behind the scenes arrangements were done and the FDP was conducted smoothly by the efforts of coordinators of Dr. Tasneem Ahmed, Mrs. Nashra Javed, Assistant Professor, Department of Computer Application and Mrs. Halima Sadia, Assistant Professor Department of CSE.