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SUNRAISE: Sustainable Natural Resource Use in Arctic and High Mountainous Areas

Report on:

Winter School on SAGA GIS

10-14 February 2020

Special Center for Disaster Research (SCDR),

Jawaharlal Nehru University (JNU), New Delhi India



Partner number: P12

**Jawaharlal Nehru University, New Delhi
India**

Report

Winter School on SAGA GIS 10-14 Feb 2020

at

**Special Centre for Disaster Research (SCDR)
Jawaharlal Nehru University (JNU)
New Delhi**

A manual on Hands-on course on Basics of Satellite Data Processing is developed for the Summer/Winter School or Training on the remotely sensed satellite data processing. A “*Winter School on SAGA GIS*” was organised by the School of Environmental Sciences (SES), Jawaharlal Nehru University (JNU) for students and research scholars at the Special Centre for Disaster Research (SCDR) as a party of capacity building under sustainable natural resource use in Arctic and high mountainous Areas (SUNRAISE project) on 10-14 February 2020.

The Winter School was coordinated by the Doctoral Research Students of SES under the supervision of Prof. P K Joshi one of the partners of SUNRAISE project.

The purpose of the winter school was to introduce satellite data processing to the beginners. The participants were MA and PhD students SCDR/JNU. These students are attending the course entitled “*Remote Sensing, GIS for Emergency Management*”, which is developed with the SUNRAISE project

The five-day school covered the topics (i) Introduction to SAGA, (ii) Downloading Satellite Data, (iii) Understanding an image, (iv) Image Pre-Processing, (v) Filtering and Enhancement, (vi) Mosaicking, (vii) Unsupervised Classification, (viii) Supervised Classification, and (ix) Change Detection. The manual provides step based approach to learn different aspects of data processing, interpretation and decision making. All the participants actively participated in the winter school and learnt these aspects. The participants were exposed to fundamental data processing and calculation using open source satellite datasets (both geographically/spatially and temporally). Different data formats, storage, visualisation and archiving techniques were shared during this session. The coordinators also shared practical know-how of about different applications, from the real-time examples of their masters’ research work and proposed doctoral research work.

After winter school, a formal feedback was collected from the each of the participants with open ended questions. Some extracts from the feedback are given below.

“...I am very thankful for organizing such a wonderful workshop on QGIS and SAGA GIS. In these two workshops I learnt so many tools and techniques which were very important for Disaster management...” – Anand Shakya

“...The workshops were nice. In these workshops I learnt so many tools and techniques which were so important for a disaster researcher...” – Nitin Rath

“...I felt more confident and sense of increment in my learning. Without the learning of GIS, I would have left most important part of disaster research learning which helps in mapping and studying the area and interpretation of the pixels and thus it helped in gaining knowledge...” - Kumari Anjali

This was the first test of the manual developed in the SUNRAISE project, testing its utility for the students/scholars attending courses on remote sensing and applicability. It is planned to use this manual for winter school for the coming yeasts in SCDR/JNU and also use it to other school of the university and share with other partners of SUNRAISE project.

At the end of the talk, Prof PK Joshi thanked the coordinators and students/research scholars for their interest and attendance.



Participants interaction during the Winter School

List of Participants

SNo	Name	Email-ID
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NB: as the lockdown was announced while this report is being prepared, hence the actual attendance sheet is not appended.