

**REPORT ON 10<sup>TH</sup> ISPRS WGVI/5 AND STUDENT CONSORTIUM SUMMER SCHOOL  
GEOSPATIAL SCIENCE FOR MONITORING OF ENVIRONMENT FOR SUSTAINABLE  
DEVELOPMENT**

**ADDIS ABABA ON 29 OCTOBER-2 NOVEMBER 2013**

The 10th ISPRS Student Consortium & WG VI/5 Summer School was held on October 29<sup>th</sup> – November 2<sup>nd</sup> 2013 at the UN Economic Commission for Africa (UNECA) Headquarters-Menelik II Ave in Addis Ababa Ethiopia. The Summer School brought together scholars and GIS scientists from 10 countries – Rwanda, Uganda, Tanzania, Ethiopia, Nigeria, Kenya, Turkey, Slovenia, Switzerland and the United Kingdom. The main theme focused on “*Geospatial Science for Monitoring of Environment for Sustainable Development*” and the following topics were covered.

- Change Detection
- Food Security
- Agriculture Monitoring
- Land Cover/Use
- Disasters Monitoring

The training schedule comprised of lectures and practical sessions where the participants were allowed to carry out exercises designed to improve their skills and educate them on the use of Synthetic Aperture Radar (SAR) data, ENVI for change detection and disaster monitoring. On the first day of the training, Dr. Paul Aplin gave an introductory lecture on Remote Sensing and thereafter guided the participants in carrying out land cover mapping and change detection exercise. The participants were also encouraged to submit their land cover classification exercises to Dr. Aplin under the “guinea pigs” exercise where he would use the data received to analyze land cover classification, class semantics and reference data influence the selection of land cover classes. The results from this analysis will be presented at the 2016 ISPRS Congress in Prague.

On the second day, Dr. Francesco Holecz, lectured on Agriculture monitoring using data derived from Synthetic Aperture Radar (SAR). He also demonstrated how to effectively monitor agriculture using the SAR data. He introduced the participants to Synthetic Aperture Radar (SAR) technology, processing techniques, land applications based on space-borne SAR systems, operational and future space-borne SAR systems, SAR data planning and ordering, and specialist tools available for SAR data. On the third day Dr. Holecz focused on using SAR for the monitoring of food security for agricultural areas. He explained that SAR data could be used in the processing of potential crop extent, potential cultivated area at the start of the growing season, crop growth extent and the cultivated area. This he explained could be used in the analysis of food security of an area.

The technical visit to the Ethiopian Mapping Agency was scheduled for the fourth day of the Summer School. The participants were able to see how the Ethiopian Mapping Agency maps land cover and land use change in Ethiopia, data available on agriculture for agriculture monitoring and disaster risk planning for the country. After the technical visit the participants also enjoyed a visit to the Museum in Addis Ababa where the history of the Ethiopian country was showcased. The participants also got to view the bones of Lucy locally known as *Dinknesh* an *Australopithecus afarensis* which was discovered in 1974 at Hadar in the Awash Valley of Ethiopia's Afar Depression. This was followed by a visit to Merkatu which is the the largest market in Addis Ababa where they managed to buy cultural Ethiopian dresses and jewellery. The fourth day ended with a trip to view the sunset over Addis Ababa at Shiro Meda.

The fifth day of the Summer School focused on Disaster Monitoring and this was taught by Dr. Tesfaye Korme of the Regional Centre for Mapping of Resources for Development (RCMRD). Dr. Korme lectured on disaster monitoring for the development of early warning systems and disaster risk planning. He focused on the rapid mapping of flood impacts to help in rescue and recovery efforts.

The Summer School was declared officially closed by Mr. Byron Anangwe and the participants were invited to join the AfricaGIS conference that was to officially begin on 3rd November 2013. A cultural night was organized for the participants at Habesha where Ethiopian delicacies were served and traditional Ethiopian dances were showcased. This was certainly a befitting end to the intense week.



Group photos of the 10th ISPRS WGVI/5 and Student Consortium Summer School