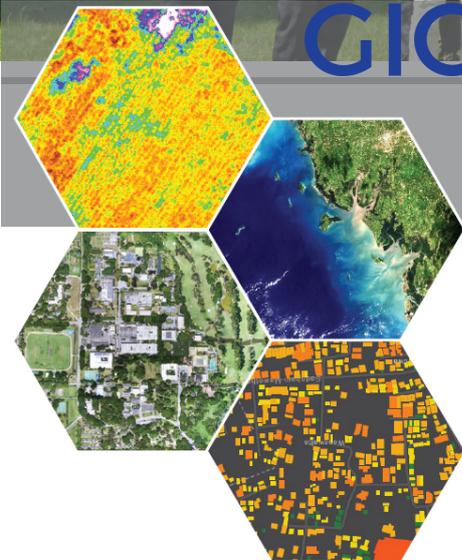Hands-on UAV session during the FAO Training for Drones, Remote Sensing, and GIS

QUARTER 2 NEWSLETTER

Welcome

The GeoInformatics Center welcomes you to peruse our latest newsletter to learn about the goings-on at GIC for the second quarter of 2018. June was especially busy with a number of training courses and visitors stopping by the Center. Please have a look to find out more.

United Nations - FAO and ITU
Training Course on Drones Applications

The Food and Agriculture Organization of the United Nations (FAO), ITU, DigitalGlobe, and the GeoInformatics Center joined to coordinate a capacity building event at AIT in early June. The 5-day training program, titled *Regional Training on the Use of Drones, Satellite Imagery, and GIS for Agriculture*, took place from June 4 – June 8, 2018. Participants from 11 countries were in attendance including Fiji, Samoa, Papua New

Guinea, Timor Leste, Bhutan, the Philippines, Laos, Sri Lanka, South Korea, Pakistan, and Thailand. Members from the GIC staff delivered lectures on topics including drone mission planning, aerial image collection theory, and drone image processing. GIC staff also facilitated hands-on practical sessions for basic drone maneuvering at AIT and drone-based agricultural data collection at the Rice Research Institute in Ayuthaya, Thailand.
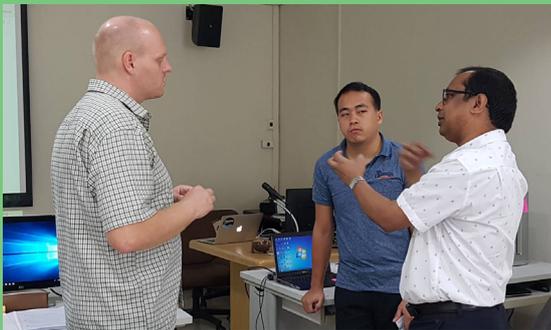

Introduction to UAV image sensor technology at AITCC (Jun. 2018)

Preparing UAV for multispectral data collection at the Ayuthaya Rice Research Center (Jun. 2018)

QGIS Training for GIZ

Two members from the German Corporation for International Cooperation (GIZ) field office in Tha Khaek, Laos attended a 5-day QGIS Basic Training Course at GIC from June 18-22, 2018. The training program focused on the fundamentals of QGIS including setting up the QGIS environment, loading and manipulating vector/raster data, and performing tasks specific to the participants' line of work. After completing the training course at GIC the participants will meet with regional officials and use their new skills to update the boundaries of the Hin Nam-no Protected Area in central Laos.

Discussing applications of GIS for protected area management (Jun. 2018)

SuperMap Day at AIT

SuperMap, a GIS software company based in China, held a product exposure event at GIC on June 20, 2018 at the AIT Convention Center. The event introduced members of the Thai geospatial community to SuperMap's new GIS software suite. SuperMap's product line is comprised of a full range of GIS platforms, including Cloud GIS, Component GIS, Desktop GIS, Mobile GIS and client SDK. In total more than 50 participants from GISTDA, as well as various Thai universities and other government agencies attended the event.
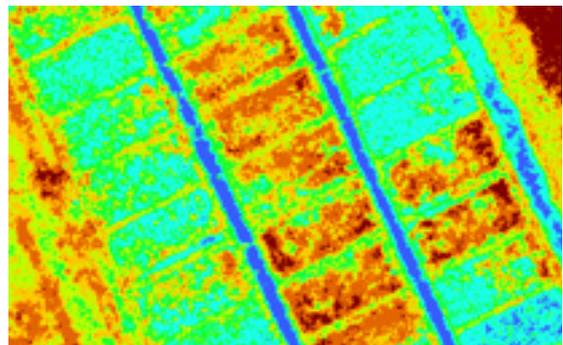

SuperMap GIS software presentation at AITCC (Jun. 2018)

UAV Research at Ayuthaya Rice Research Center

UAV mission at the Ayuthaya Rice Research Center (Jun. 2018)

Unmanned Aerial Vehicles have numerous agricultural applications including farm planning, pesticide application, and assessment of crop health. Near the end of 2017 the GeoInformatics Center had a unique opportunity to partner with the Ayuthaya Rice Research Center in Ayuthaya, Thailand for an application of UAV to study rice health. The study lasted for one growing cycle of the Ayuthaya-1 rice cultivar, approximately 110 days. The aim of the study was to analyze UAV imagery to indirectly detect rice nitrogen content, while using lab-based techniques to directly determine rice nitrogen content throughout the growing cycle. Having an efficient system to accurately detect nitrogen deficiency of an entire rice crop will allow for more precise application of fertilizer, resulting in less waste for farmers. This project would not have been possible without the expertise and generous assistance from Mr. Kritkamol Paothong, Acting Director of the Ayuthaya Rice Research Center, and Mrs. Sumana Maneepitak, Planning and Policy Analyst for the Ayuthaya Rice Research Center.

NDVI image of rice plots at Ayuthaya Rice Research Center (Jan 2018)

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CONTACT

geoinfo@ait.ac.th   +66-2-524-5580