Elijah Cheruiyot

Physics, Remote Sensing

International Potato Center (CIP)

Crop Mapping

Organization Background

- CIP was founded in 1971 as a root and tuber research-for-development institution delivering sustainable solutions to the pressing world problems of hunger, poverty, and the degradation of natural resources

- CIP seeks to achieve food security, increased well-being, and gender equity for poor people in the developing world

- CIP is part of the CGIAR Consortium

Current work/research

- Develop remote sensing and GIS technologies for monitoring smallholder cropping systems

- The research seeks to address cost/sustainability and accuracy of collecting agricultural statistics

- Involves use of high resolution unmanned aerial vehicle (UAV)-based data as well as satellite-based data

- UAV platforms, customized sensors, open-source data acquisition and processing software have been developed
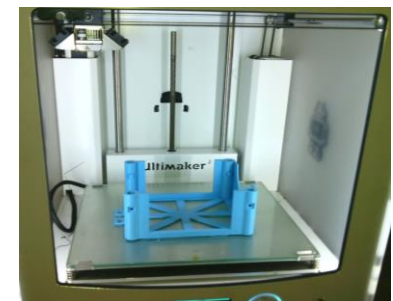
UAVs and sensors developed

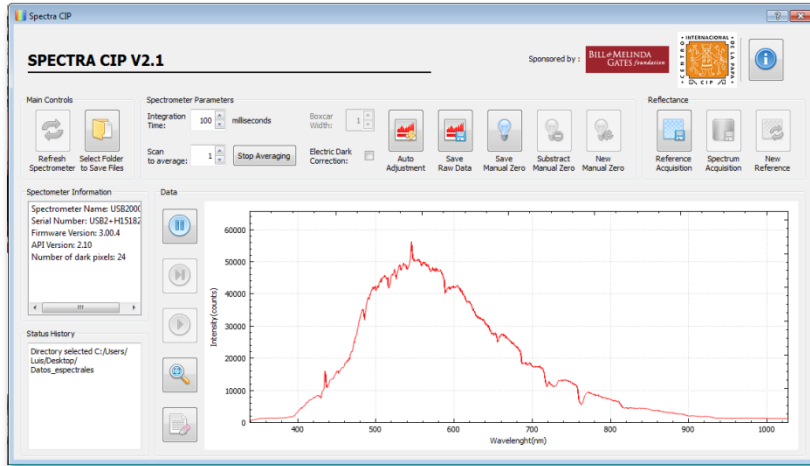CIP-Built camera mounted on a UAV
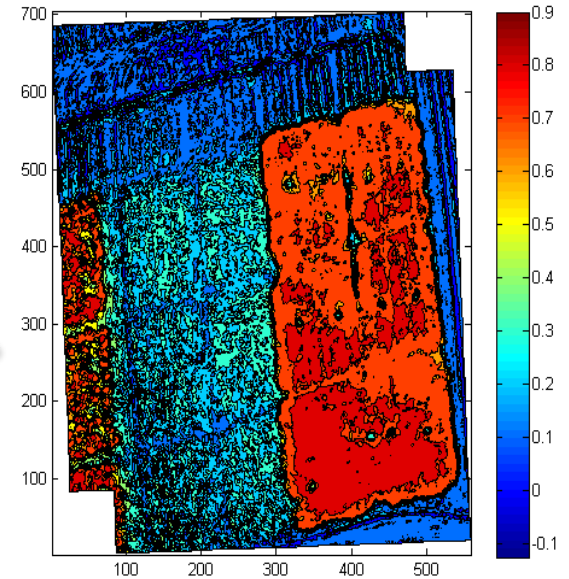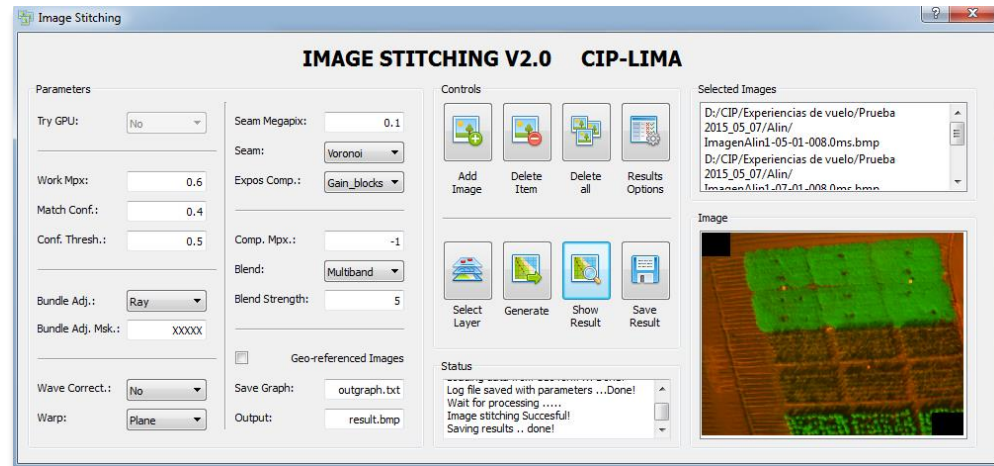

NDVI obtained with CIP Built Camera

Locally assembled UAVs and other accessories made from 3D-printed parts
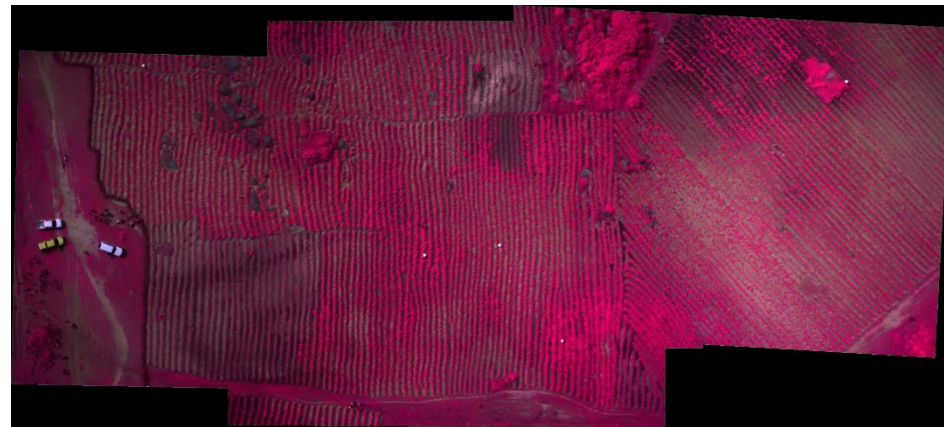
Open-source software

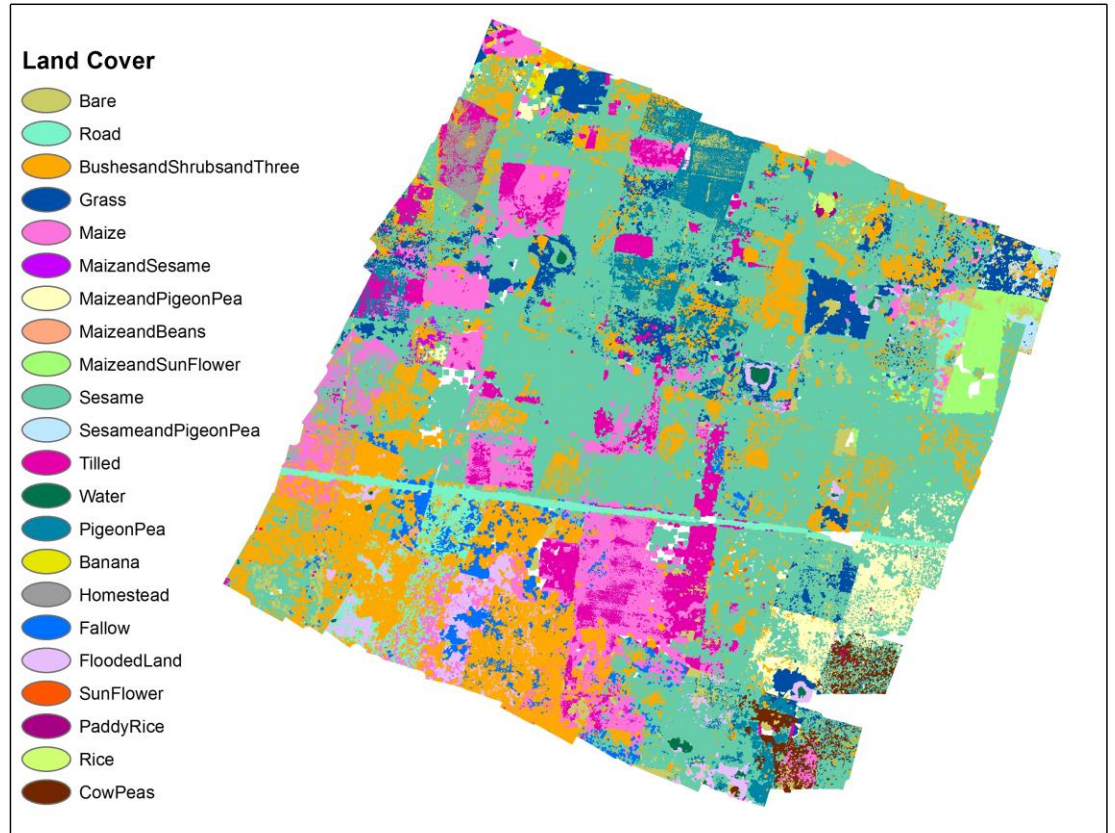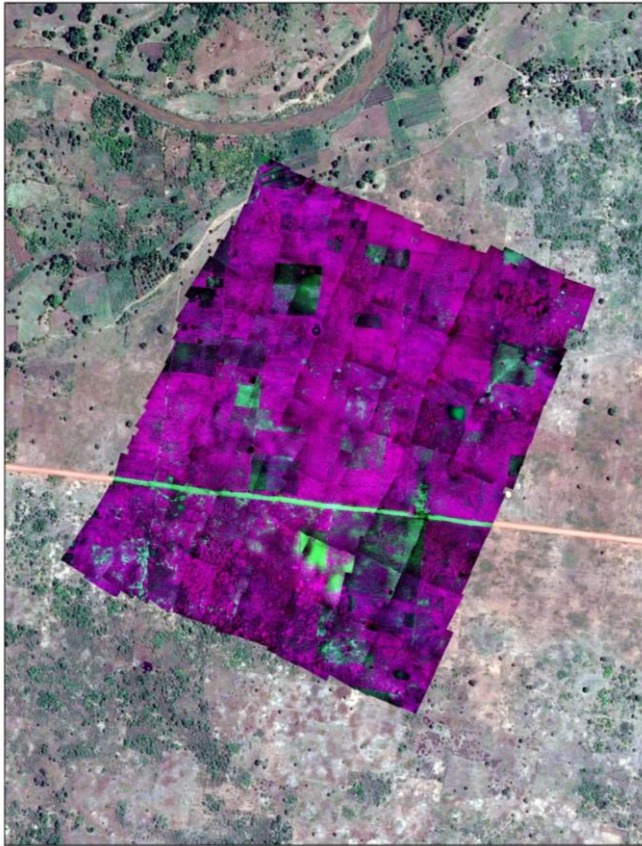Spectra_CIP Software for collecting spectral measurements

ISAM Software for seamless mosaicking of high resolution UAV data

Mosaic generated

Example: Crop statistics

Contact info.

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Learn more:

ARSIS Video

Join UAV online community UAV4Ag on DGroups