Enabling Wide Area Persistent Remote Sensing for Agriculture Applications by Developing and Coordinating Multiple Heterogeneous Platforms

Brief Profile

This project is to develop wide area, persistent remote sensing capability for agriculture applications by developing and coordinating a number of sensing platforms such as satellites, unmanned aerial vehicles, airships, and even ground unmanned vehicles. It is aimed to provide an unprecedented high density of spatial and temporal information required in sustainable agriculture.

This project is to advance the current remote sensing capability by two approaches: 1) further improving the current sensing platforms particularly airships and small scale unmanned aircraft including both pointing systems and vehicles; 2) more importantly coordinating different types of existing sensing platforms (i.e. satellites, unmanned aircraft, or airship) based on their performance and characteristics.

Partners
UK:
Loughborough University (Lead Research Organisation)
University of Manchester
Cranfield University
NIAB East Mailing Research

China:
Beijing Aerospace Automatic Control Institute;
Beihang University (BUAA).

Project web-link
http://gtr.rcuk.ac.uk/projects?ref=ST%2FN006852%2F1

Project status
On-going (2016-2019)

Outputs
Planning algorithms for UAV operation under different terrain and weather conditions;
Automatic selection of wavebands of high spectral images for remote sensing

Funder
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