Workshop on

'Imaging Spectroscopy for Smart Agriculture (ISSA)'

Smart agriculture refers to agriculture system that is to be ecologically sound and sustainably enhance productivity at relatively lower cost of production through adoption of scientific, reliable, affordable and time-saving agricultural technologies with conservative use of inputs without hampering the environmental health. Recent efforts in public and private sectors in India for exploring potential use of above suite of technologies such as GPS guided sensors, precision variable rate technology, robotics, UAVs and IoTs for whole agricultural industrial chain i.e. farm production, processing, market operation, management to service has excited many researchers & academia for advance research on developing new technological innovations on smart agriculture.

Imaging Spectroscopy is a relatively new field offering many advantages over the conventional broadband multi-spectral remote sensing for precise quantitative estimation of spatio-temporal variabilities of soil and crop health, assessing vulnerability and capture dynamism of the system for timely monitoring and management decisions for smart farming. Imaging spectroscopy is based on the examination of many contiguous narrowly defined spectral channels and has been found to be superior to conventional broadband multi-spectral remote sensing in spectral information. Imaging spectroscopy hence, has a great potential to augment the capability of remote sensing as a promising technology for smart agriculture. Keeping in view above, this workshop is organized to give an opportunity to researchers and academia and stake holders to discuss on (i) potential and status of the technology, (ii) challenges and researchable issues concerned to smart agriculture and (iii) networking for knowledge exchange/sharing. Major topics to be covered in the workshop are

1. Principles of Imaging spectroscopy
2. Imaging spectrometers at ground, airborne and satellite Platforms: A global view of Present and Future
3. Big Data Analytics/Machine learning for Imaging spectroscopy
4. Spectroscopy in Agriculture: How Smart and Precision!
5. Challenges, Issues and pathways: An open discussion

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