SMART EYE

Airborne and AI-driven Assessment Solution of Sugarcane

Funding granted: AUD 300,000

Context

Sugarcane is the main ingredient used in sugar production in Vietnam and the livelihoods of thousands of rural households in Thanh Hoa province rely on it, with a total production area of more than 25 thousand hectares.

Lam Son Sugarcane Joint Stock Company (LASUCO) is one of the largest sugar manufacturers in Vietnam, based in Thanh Hoa. In the last five years, LASUCO has invested in high-tech solutions to increase the productivity of its sugar mills and rationalise production. However, Return on Investment has not reached expectations because local sugarcane cultivation is still conducted with limited mechanisation, and there is a lack of technology for real-time monitoring of nutrient deficiencies and early detection of disease outbreaks. There is an urgent need to enhance the competitiveness of Vietnamese sugar industry and protect the livelihood of tens of thousands of farmers.

Solution

The Smart Eye solution is an AI-driven system that incorporates drone technology and artificial intelligence of things (AIOT). Smart Eye will allow LASUCO and local farmers in Thanh Hoa province to monitor the nutrition levels and disease infestation of sugarcane fields. This information will allow farmers to make timely decisions to improve their productivity and reduce production costs.

Key activities

1. Develop and demonstrate the pioneering AI-driven airborne system to digitally transform the monitoring and assessment processes of sugarcane at LASUCO.

2. Train the technical staff of LASUCO to help them master the use of the system and assist farmers better, which will ultimately help farmers protect their crops and investment.

3. Transfer the technology to industry partner VIGREEN, a technology company, to replicate and scale up to other regions and other crops.

For further information

University of Wollongong
Prof. Pascal Perez (pascal@uow.edu.au)
Dr. Le Chung Tran (lctran@uow.edu.au)
Vigreen
Mr Trung Pham (support@vigreen.vn)

Implemented by

![UNIVERSITY OF WOLLONGONG AUSTRALIA] ![lasuco since 1980] ![Vigreen] ![ĐẠI HỌC BÁCH KHOA] ![ĐẠI HỌC HỒNG ĐỨC]

![Australian Aid] ![logo] ![CSIRO]