## Support Farmers to build a Sustainable and climate-smart Food value chain.

Sachin Gattu\*1

<sup>1</sup>Aviac – 1-4-159, Sainikpuri, Hyderabad, 500094, TG, India

## Abstract

We must harness technological innovation and sustainable practices to Incorporate Climate-Smart Agriculture. Understanding Ecological ecosystems at a granular level will allow us to build climate-smart policies and strategies that will pave the path to achieve optimal and substantial results.

This work proposes a cost-effective approach that enhances plant/crop health and monitors the phenotype characteristics throughout the ecological cycle. To do so, we are developing a product ecosystem[E-VTOL, Hyperspectral Sensor, and Ground pod] and a digital platform that automates and extrapolates the Plant/crop biodynamics. Furthermore, The feature selection process can classify the best phenotypes to the substandard ones and corroborate with the metadata for building resilient sensing models. Implementing these methods on a large scale will provide us with information that can quantify crop hazards and provide robust solutions.

Considering the environmental impacts and transition of global climate change may lead to food chain adversities. To tackle such situations, we need to foster farmers about the importance of sustainability and how it affects future generations. Networking, collaborating, and working together can avert the worst impacts of climate change and help us build a climate-smart food value chain.

Keywords: Product Ecosystems, Hyperspectral sensor, Biodynamics

<sup>\*</sup>Speaker