

## **Mapping of Individual Oil Palm Trees Using Airborne Hyperspectral Sensing: An Overview**

### **ABSTRACT**

This overview represents a preamble step for developing an approach for mapping individual oil palm trees from airborne hyperspectral imaging. The study generally describes airborne hyperspectral sensors in different fields particularly in agriculture by comparing and analyzing their uniqueness for different applications. The emphasis is on the image processing in identifying and mapping of the individual oil palm trees with the utilization of image histogram to examine the RGB bands. An algorithm is design to discover the involvement of different materials in a single mixed pixel and converting it into a pure pixel. The techniques employ in this connection are Linear Spectral Mixture Analysis (LSMA), Mix to Pure Converter (MPC) and Euclidean Norm.

**Keyword:** Hyperspectral, Airborne, Image processing, Linear spectral mixture analysis (LSMA), Mix to pure converter (MPC), Euclidean norm