CUTN Faculty Receives Patent for Innovative Grading System for Palm Fruit Oil Extraction

Thiruvarur Tamil Nadu

Dr.. Chandra Mouli P.V.S.S.R, Associate Professor and Head of the Computer Science department at the Central University of Tamil Nadu along with Dr. Anjaneyulu and Gurang S Patkar, have been granted a patent for their groundbreaking intelligent grading system designed for the extraction of oil from palm fruits. This cutting-edge technology revolutionizes the palm oil industry by providing an efficient and reliable method for assessing the quality of palm oil fruit.

The intelligent grading system incorporates a range of advanced components to ensure accurate assessment and efficient processing. The system includes a specially designed housing that allows for the placement of palm oil fruit, accompanied by a shadow-free illumination source to enhance the visibility of the fruits. The integration of a multi-rotor drone equipped with a camera enables the capture and transmission of high-quality images of the palm oil fruit to a client computer.

At the heart of this groundbreaking technology is an intelligent image processing software, meticulously developed by Dr. Chandra Mouli and his team. This software analyzes the captured images and employs sophisticated algorithms to grade the quality of the palm oil fruit accurately. By utilizing a flight controller, the system is capable of receiving user commands and performing various calculations based on input from built-in sensors that detect orientation changes, speed, and height. This enables the system to determine the optimal power distribution to each motor, ensuring a stable flight and reliable data collection.

The intelligent grading system provides continuous evaluation of the quality of palm oil fruit through continuous visual inspection of multiple samples. The data generated from this analysis is used to classify the fruit into distinct categories, such as ripe, under-ripe, and overripe. This categorization enables palm oil producers to make informed decisions regarding the extraction process, resulting in improved efficiency and quality control.

Dr. Chandra Mouli's patent for this innovative grading system represents a significant milestone in the palm oil industry. The application of advanced technology and intelligent image processing not only streamlines the extraction process but also enhances the overall productivity and profitability of palm oil production.

The Central University of Tamil Nadu takes great pride and congratulates Dr. Chandra Mouli for contribution to society through groundbreaking research and innovation.

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