Vacancy for Graduate Research Assistant (Immediate start in November 2020) in Faculty of Engineering, Multimedia University, Cyberjaya

Project title: Non-contact methods for measurement of oil content in palm oil fresh fruit bunch

Description: Palm oil harvesters determine the ripeness of the fresh fruit bunch by using visual inspection of its colour and the number of loose fruits that falls from the bunch. However, these methods may not work when the bunch is located at higher trees making it difficult to see by sight and the number of loose fruits no longer accurately determine the ripeness of the palm oil fruit. This work will focus on image processing methods in which the oil content of the oil palm fresh fruit bunch on the tree itself can be determined accurately so that harvesters can accurately and quickly harvest only ripe fresh fruit bunch. The project aims to analyse parameters that influence the oil content in a fresh fruit bunch, explore suitable image processing methods for determining the ripeness of the fresh fruit bunch and to design, fabricate and characterize a tool that can measure oil content in a fresh fruit bunch.

Project duration: 18 months

Monthly stipend: RM1800

Other benefits: Eligible to apply for tuition fees waiver from Institute of Postgraduate Studies, Multimedia University

Responsibilities:

1. MUST register as a full-time candidate of Master in Engineering Science (M.Eng. Sc) in Faculty of Engineering, Multimedia University, Cyberjaya.
2. To write technical papers, prepare documentations and perform administrative tasks related to the project.
3. To perform data collection on oil palm samples, experimental work and simulation work related to image processing.
4. To develop an oil content measurement tool.

Requirements:

1. A Bachelor's degree with a minimum CGPA of 2.75 or equivalent in an Engineering or Engineering Technology or a related field from MMU or any institutions recognized by MMU Senate.
2. Good command of written and oral English.
3. Knowledge of image processing methods and oil palm analysis is an advantage.
4. Must be willing to do field work in an oil palm estate.
5. Highly self-motivated, thus able to work independently and with minimal supervision.

Interested candidate may submit resume and academic transcript to Dr. Katrina D. Dambul (**katrina@mmu.edu.my).** Interviews will be conducted for shortlisted candidates.