

# IP MARKETPLACE

## CONNECTING INNOVATION TO YOUR BUSINESS

### TECH OFFER

## METHOD FOR PRODUCING BIOGAS FROM PALM OIL MILL EFFLUENT



### ▶ MORE INFORMATION

#### MEGA-TREND

- Healthcare
- Future Global Power Generation
- Energy and Power

#### TECHNOLOGY READINESS LEVEL (TRL)

- TRL 5 (Lab Prototype - Field Testing)

#### PATENT/ GRANTED NUMBER

- UI 2019006262

### ▶ TECHNOLOGY OVERVIEW

The method for producing biogas from palm oil mill effluent comprises the steps of preparing an inoculum using a wastewater sludge; preparing a feedstock; and performing multi-stages fermentation configured for producing plurality of biogas. The multi-stages fermentation comprises reaction of acidogenesis for producing biohydrogen and methanogenesis for producing biomethane. The multi-stages fermentation is conducted in individual Up-flow Anaerobic Sludge Fixed-Film reactor for each reaction. Further, the acidogenesis is conducted by slowly mixing palm oil mill effluent with the feedstock into a first reactor having acidogens configured to produce biohydrogen and effluent whereby the effluent is used as raw material for producing methane during methanogenesis.

The methanogenesis is conducted by feeding the inoculum and channelling the effluent into a second reactor having methanogen configured for producing methane.

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## CONTACT US!

Dr. Lee Ching Shya

UMCIE Business Officer

Email: [leecs@um.edu.my](mailto:leecs@um.edu.my)

Phone: +603 – 7967 7351 / 7352