

SOME HIGHLIGHTS ON FACILITIES

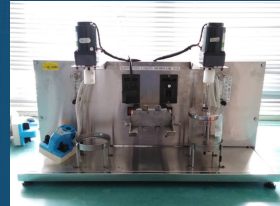
Advanced Extraction Technology



Supercritical Fluid Extraction (SFE)



High Pressure Supercritical Extraction (SWE)



Supported Liquid Membrane

OUR COLLABORATORS



CONTACT US



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Centre of Lipids Engineering and Applied Research- CLEAR, UTM



<https://research.utm.my/clear>

CENTRE OF LIPIDS ENGINEERING AND APPLIED RESEARCH

Ibnu Sina Institute for Scientific & Industrial Research

Innovating Solutions

About us

Center of Lipids Engineering and Applied Research (CLEAR) were established since the late 1987 to undertake research in process engineering and technology of palm oil and oleo chemical processes. Our research niche area is green and advanced separation technology, towards environmentally friendly and innovative methods to a more sustainable and eco-friendly approach to separation processes to support carbon footprint reduction and environmental impact of various industries.

Our vital goal is to become a leader in the lipid and advanced separation engineering research area through innovation and commercialization concomitant with national and regional aspiration. We are planning our strategy to play a more dynamic role in research, development and commercialization activities at the international level.

Currently, CLEAR is operating with 12 active academic staff with total equipment (pilot plant, analysis and chemical process) worth approximately RM8 million and total research grant of about RM6 millions and more than RM1 million of commercialization revenue through technology know-how licensing and product commercialization throughout 2017-2022.

Our Achievement

**Data is from 2017 until 2022*

>RM6 million
total grant secured

>RM1 million
total gross income of
commercialised products

>200
Indexed Publication

5
Patent Filed

2
Patent Granted

49
Other IPRs

Our Experts



Assoc. Prof. Ir. Dr. Muhammad Abbas Ahmad Zaini
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Research Areas

- Oleo Chemical and Lipid Engineering
 - Advanced Separation Process
 - Green Extraction Technology
 - Biomaterial and Biomass

Our service

- Collaborative Research
- Consultancy
- Community Projects
- Research Laboratories