

FSG E-BULLETIN

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FSG AKNC 2021 OVERALL CHAMPION

IN THIS ISSUE

COMMERCIALISATION OF FSG RESEARCH INNOVATIONS

INTERNATIONAL
COLLABORATIONS WITH
SWEDEN, TAIWAN AND
INDONESIA

POST-FLOOD RELIEF
PROGRAMME BY FACULTY
OF APPLIED SCIENCES

FSG Padu!

A historic victory for FSG

Faculty of Applied Sciences emerged as the Overall Champion in "Anugerah Kualiti Naib Canselor 2021" of Universiti Teknologi MARA. FSG obtained the top prize by winning the following categories:

Juora Keseluruhan

- Best Faculty
- Field of Focus (Staff Management and Development)
- Criteria (Customer Focus)
- Criteria (Results)

Congratulations FSG, we did it!

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RM Poly Pack(M) Sdn Bhd: UiTM's Plastics Packaging Start Up, a Manufacturer of Bottles, Jars, BioStraws and Biobags

by Assoc. Prof. Dr Rahmah Mohamed, Faculty of Applied Sciences, UiTM Shah Alam

Plastics had been targeted and brought critics from various Earth and NGO organisations for polluting the environment. Environmental problems related to plastic waste have become a major problem. Huge concerns are that millions of tons of plastic were dumped, and hate for plastics grew. Almost all packaging for food & beverages, medical, construction, engineering is made from non-biodegradable plastics.

The global environmental issues have inspired Assoc. Prof. Ts. Dr Rahmah Mohamed to find a solution, commercialise her findings, and officially form her start-up RM Poly Pack (M) Sdn Bhd.

Since 2012, she has been a consultant and collaborator to various plastics and packaging companies, including TycoPlas and PS Poly Pack Sdn Bhd, the two renowned packaging industries. Besides that, she was involved in NDA, MOU and MOA representing UiTM with GruChem Sdn Bhd, Dedikasi Aktif Sdn Bhd, Persada Dunya, Balung Tapioca Sdn Bhd, Live Cube Global Resources Sdn Bhd, Green Ecopolymer Sdn Bhd and recently with DRN Manufacturing Sdn Bhd.

All these companies are interested in commercialising green Bioplastics for packaging applications. More than five projects have presented for commercial grants at Simbosis, MTDC, Teraju and MOSTI since 2011. One of her innovations, Epoxidised Oil with MTDC Validation, had received funding for RM3 million.

Other innovations that MOSTI has funded include the UV coating resin project for a solar company and photodegradable resin and bags under Green Ecopolymer Sdn Bhd. The efforts have been presented to the MTDC fund.

These experiences had prompted Assoc. Prof. Ts. Dr Rahmah Mohamed to start her start-up in November 2019. The start-up company was registered with Business Innovation & Technology Commercialization Centre (BITCOM) UiTM in July 2020 and officially signed up the start-up agreement in May 2021. To date, she has four patents registered, with two granted patents and six copyrights under RIBU/BITCOM.



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Her involvement in bioplastics with her various diamond and gold awards at international and national levels had not gone to waste. She had started her manufacturing factory near UiTM in Shah Alam in 2020 and 2021. Amidst the full movement control order (MCO) period since Mac 2020, she was able to spearhead manufacturing BIOstraws via original equipment manufacturer (OEM) and produce her design bottles with her self-financed blow moulding machine. She is confident that the future of packaging bottles, namely degradable bottles, are in demand. She had been granted the UiTM Synergy project from 2015 to 2018 to produce degradable bottles.

For BIOstraws projects, she had successfully made her own starch-based BioStraw from Agri wastes composites via OEM with a company in Selangor. She had been awarded a Prototype Development Research Grant (PRGS) and waiting to obtain and mass-produce her BIOstraws. She had started to sell BIOstraws via Shopee and other marketing restaurants and shops.

So far, for conventional bottles, she had managed to sell 100k bottles for less than a year and for BIOstraws, since its still has a higher price than traditional straws, it had been sold for modest quantities of more than 5k pieces. Up to now, She has produced more than ten designs of bottle moulds from 250 to 1500 ml bottles and three jars for F&B, healthcare and storage packaging needs. She is introducing a new design and packaging needs of consumers, ranging from normal roadside sellers to premium F&B outlets.

She hopes other than owning the blow moulding machine, she plans to obtain straw making machine to complement the drink bottle. As for single plastics manufacturing, she hopes to produce her own bioplastics bag from a film-making machine and integrate all packaging products under her factory licensed under Shah Alam City Council (MBSA). She had managed to sell and market to Small Scale medium industries SME F&B companies.

Direct sales to constant customers are growing, and placing in supermarkets are on the agenda by the end of December 2021. It is hoped that RM Poly Pack M Sdn Bhd could get a fair share of the market from the growing F&B industry, UiTM KOOP, and its own groomed entrepreneurs.



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