General

Ts. Mohd. Najib, researcher-cum-entrepreneur formulates oily wastewater treatment product

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The issues of uncontrolled oily wastewater discharge and water pollution that affect the environment inspire a lecturer from the Faculty of Chemical and Process Engineering Technology, Universiti Malaysia Pahang (UMP), Ts. Mohd Najib Razali to conduct research on the treatment of oily wastewater.

He successfully formulated MNRg-Treat via green technology that can be used to treat oily wastewater. More interestingly, MNRg-Treat is a safe product to use than any other product in the market as the formulation uses natural-based ingredients. According to Ts. Mohd Najib, the formulation is now complete and in the process of improving in terms of physical and chemical properties and the acquisition of relevant certificates.

“This product acts as an agent for treating oily wastewater. Based on the concept of coagulation and flocculation, the product should be applied to oily wastewater with a predetermined dosage.

“The process continues with mixing for MNRg-Treat to react with the wastewater.

“Oil filtration can be done after oil and water are separated,” he said during a meeting in his office, MNR Multitech Sdn. Bhd. in UMP Gambang Campus.

He hopes that this product can solve the problem of oily wastewater discharge to meet the environmental standards of the Department of Environment Malaysia. His team also provides consultation and analytical service for on-site and laboratory water testing. This effort is the realisation of UMP aspiration in communitising technology and to carry out research that benefits the community and industries in this country.

The research conducted since 2012 has been supported by several university research grants, including the MyRA Incentive Fund (Lab2Market) grant UIC161003 – Bio-Coagulant and Smart System for Sustainable Water Treatment and a RM500,000.00 grant from the Bumiputera Entrepreneurs Startup Scheme (SUPERB) under the Bumiputera Leadership Agenda Unit (TERAJU) to support the business ideas.

Recently, Ts. Mohd Najib was awarded the Researcher Entrepreneur Award at the Malaysia Commercialisation Year 2019 (MYC 2019) and received RM100,000 worth of prizes including trophy and certificate. He was also the recipient of the Industry and Community Excellence Award (AKIM) 2019 under the category of Industrial Collaboration Quality Award (Academic Staff Category) during the UMP Quality and Innovation Day. In the future, he, who is also a UMP alumnus, hopes to become the leading water treatment analysis service provider throughout Malaysia.

MNRg-Treat helps solve the issues of waste discharge by reducing the parameters below the

standards set by the Department of Environment Malaysia (DOE). MNRg-Treat is commercialised by a start-up company MNR Multitech Sdn. Bhd. at RM35 per litre and RM750 per 25 litres. This product is expected to penetrate the future market through promotion at national and international exhibitions.

This product has won several medals at the Seoul International Invention Fair (SIIF) 2017, International Invention Show, Croatia 2013 (INOVA 2013), Innovation and New Product Exposition, United State of America (USA) (INPEX 2013), International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA 2017), Water Malaysia 2013 dan Global Agri Tech Summit 2019.

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