

Using plant materials for aerospace and automotive application

August 20 2015, by Syifarida Muhamad Zaki

Universiti Putra Malaysia (UPM) is pioneering a research using plant materials to produce a bio-sourced hybrid composite for aerospace and automotive application.

Vice-Chancellor of UPM, Prof. Dato' Dr. Mohd Fauzi Ramlan said two main plant materials used in the research were hibiscus and pineapples.

"Hibiscus is the seventh commodity plant in Malaysia and its fibre was introduced in 2010 while the pineapple fibre is readily available in the form of biomass.

"Both fibres contain polymers which are petroleum-based and act as fasteners for that strengthening elements required in the production of [composite](#).

"This composite of high performance is produced from bio-sourced resources suitable with the requirements of today's global condition, that is towards a cleaner and greener surrounding and environment," he said.

The research in the use of robotic technology for manufacturing process and composite material testing was carried out with the cooperation of the Malaysian Aerospace Innovation Centre (AMIC) and the Malaysian campus of the Nottingham University.

Prof. Dato' Dr. Mohd Fauzi inked a Memorandum of Understanding on behalf of UPM while AMIC was represented by its Chief Executive

Officer, Shamsul Kamar Abu Samah.

UPM's role is to identify the [plants](#) which are of potential to be used and determine any element of durability contained in the plants such as synthetic fibre which is water-proof and smoke-proof.

He said the creation of certain components in aeroplane would be among the items expected to be produced from the research which tentatively will be ready by 2018. The components, however, will have to undergo several testing to ensure its safety features comply with the standards set by the aviation industry.

Provided by Universiti Putra Malaysia (UPM)

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