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Top award for green effort

Trio's idea to treat waste water using dragon fruit stem captivates judges

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THREE undergraduate research students at Universiti Sains Malaysia (USM) found out that the delicious dragon fruit is not only good for one's health, but that its stem could be used to treat waste water.

Their unique discovery captivated the judges and helped them beat 117 other projects in the Novel Research and Innovation Competition (NRIC) 2014, bagging them the NRIC 2014 Best Award, trophy, RM5,000 and certificates.

The three chemical engineering students also received a gold medal for their innovation at the NRIC 2014 prize-giving ceremony at Sunshine Square, Bayan Baru recently.

NRIC is organised by USM's Student Representative Council and is an annual event which pits the participant's final-year project against others.

Leslie Ewe Fang Jun, 25, said the idea came from his final-year project as he was looking for more natural ways to treat waste water.

"Often, chemicals such as aluminium sulphate or poly aluminium chloride are mixed into the water to coagulate with suspended solids and drag it below the water surface.

"This is unhealthy as there could be trace amounts of heavy metals present in the treated water. Therefore a natural, biodegradable treatment is needed," he said.

Ewe said together with his two teammates, T. Vjayan, 23, and Muhammad Zamani Zakaria, 23, they took 10 months to complete the research, adding that they also tried various items such as aloe vera and papaya seeds.

Ewe said the dragon fruit stem produced the best results as it does not contain heavy metals and could treat waste water.

"We are really surprised with the win and hope that our research product can be commercialised in the future," he said.

Vjayan also won the NRIC 2014 Best Presenter Award, taking home an extra RM1,000 and a trophy.

USM deputy vice-chancellor (Industry and Community Network) Prof Datuk Dr See Ching Mey represented USM's vice-chancellor Prof Datuk Dr Omar Osman at the closing ceremony.

A total 18 projects won gold medals, 29 won silver medals and 41 projects won the bronze medals.

Among the silver medallist was Mohd Nazmi Mohd Salleh, 29, from Universiti Sains Islam Malaysia (USIM), who also won the Jury Special Award for OKU, an award introduced at the NRIC this year.

Mohd Nazmi and his teammates designed the I-OK, an innovative walker which has wheels for mobility and straps designed to carry bags or even allow the user to sit on it.

The paraplegic Kelantanese said he was inspired to upgrade the walker after he found its uses limited.

Dr See presenting the Jury's Special Award for OKU to Mohd Nazmi at the Novel Research and Innovation Competition 2014 prize-giving ceremony at Sunshine Square, Bayan Baru.