



UiTM@Media **2016**



Siswa Cemerlang



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2016

Fuelling imagination



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FUTURISTIC and fuel-efficient cars were queuing on the track on the Rizal Park street circuit in Manila recently, marking the start of the competition at Shell Eco-Marathon Asia 2016.

These vehicles were designed and built by students from 17 countries across Asia Pacific, Middle East and Australia.

Inventive entries in various shapes, colours and sizes were seen as the students' creativity and technical skills were put to the test.

Team UiTM Eco-Planet from Universiti Teknologi Mara Shah Alam, Malaysia, debuted a 3D-printed car that was assembled from 120 individually-printed parts, with each part taking about 10 hours to complete.

"We chose to 3D-print our car as it's lightweight, economical, reduces fabrication time and ensures zero fabrication errors. As we only had a small, office-sized 3D printer, we spent more than 1,200 hours printing the individual parts which



we assembled together when we arrived in Manila," said Mohd Syafiq Akmal Samsudin from Team UiTM Eco-Planet.

All vehicles had to pass a set of technical tests before they were allowed onto the competition circuit to see how far they can get on the least amount of fuel, and potentially achieve the highest mileage in the competition.

The competition which concluded recently saw four Malaysian teams — two from UiTM Shah Alam, one each from University of Malaya, and Monash University Malaysia — sweeping the top awards for their respective categories.

BERSAMBUNG
DI SEBELAH

Team UiTM Eco-Sprint scored a hat-trick — emerging as the champion in the Prototype Hydrogen Fuel Cell category for the third year in a row with another record-breaking mileage of 476 km/m³.

Team UiTM Eco-Planet emerged as champion of the UrbanConcept Hydrogen Fuel Cell category.

UM's Team Eco-Voyager came in second place for the Prototype Hydrogen Fuel Cell category, recording a mileage of 244km/m³ and improvement over their previous year's performance.

Team Eco-Chaser from Monash clinched the top spot in the Prototype Compressed Natural Gas ('CNG') category with a mileage of 95km/l, the approximate equivalent of driving from Kuala Lumpur to Port Dickson on just 1 litre of fuel.

This year's winners defeated 117 student teams. The competition challenged students to design, build and drive the most energy-efficient car with a unique focus on going farther, not faster.

Results were measured on who can drive the furthest on the equivalent of 1 kWh or 1 litre of fuel.

Teams submitted vehicle entries in either the UrbanConcept or Prototype category in any of the seven different energy types: gasoline, diesel, alternative gasoline (ethanol 100), alternative diesel (Shell Gas-to-Liquid or fatty acid methyl ester), battery electric, or hydrogen fuel cell.

In the 'Prototype' category, student teams focused on streamlined vehicles to maximise fuel efficiency through innovative design elements, such as drag reduction.

The 'UrbanConcept' category focused on more "roadworthy" fuel-efficient vehicles. Aimed at meeting the real-life needs of drivers, these vehicles are closer in appearance to the higher-mileage cars seen on the roads today.

"The Shell Eco-Marathon brings together the best and brightest to

tackle the world's growing need for cleaner energy, especially when it comes to mobility in the future.

"The Malaysian teams this year have been truly inspiring; demonstrating vision, passion and technical expertise to drive future innovation," said Shell Malaysia spokesperson Leigh Wong.

"Shell is delighted that the Eco-Marathon has become a key platform for Malaysian students to develop and showcase their talent in science, engineering, technology, business, marketing and communications; which can contribute to helping Malaysia realise its aspiration of becoming a high-income nation.

"Shell looks forward to remaining as a key partner in fuelling Malaysia's progress — whether through the Eco-Marathon or other high-impact programmes like it."

In addition to the 24 On-Track awards, teams also competed for five Off-Track Awards that tested their technical and creative skills, as well as their approach to safety and sustainability.

A panel of experts from various fields assessed the students on a variety of categories that covered Communications, Vehicle Design, Technical Innovation, Safety, and Perseverance and Spirit of the Event.

Shell Eco-Marathon Asia welcomed close to 30,000 visitors over the span of four days, who watched to the student competition and live performances at the Fan Zone.

Visitors were also treated to a captivating and educational adventure into the future of energy, cities and sustainability at the Energy Zone, and enjoyed an outdoor festival where they were able to participate in activities and grab a bite to eat.

Shell Eco-Marathon 2016 showcased Shell's commitment to helping the world meet its growing energy needs in a responsible way, bringing together students, partners and the public.



- **Penasihat**

Profesor Emeritus Dato' Dr Hassan Said
Naib Canselor

- **Ketua Projek**

Alfina Bakar

- **Pengurus Produksi**

Darus Kasim
Rosly Mahmud

- **Penyelaras Bahan Akhbar**

Firdaus Abd Hanan
Hanisah Yacob
Datin Umminalah Salleh

- **Pembantu**

Penyelaras Bahan Akhbar

Hazizi Jantan
Nor Azlina Nordin
Samsinah Selamat
Raja Nazrul Raja Hisham

- **Pereka Grafik Utama**

Junaidy Talib

- **Pereka Grafik**

Rosdi Abdul Hamid
Mohd Nor Firdaus Mohd Isa

- **Sumber Keratan Akhbar**

Utusan Malaysia, Mingguan Malaysia, Berita Harian, Berita Minggu,
New Straits Times, The Star, Sunday Star, The Sun, Star Metro,
Kosmo, Harian Metro, Sinar Harian.

