

NTU's solar car wins Solar Grand Prize at the inaugural Shell Eco-marathon Asia 2010

July 14 2010

A total of 81 teams from 10 countries gathered at the Sepang International Circuit, Kuala Lumpur, Malaysia from 8-10 July 2010 to compete at the Shell Eco-Marathon Asia 2010, the first time it is held in Asia.

Nanyang Technological University's (NTU) Nanyang Venture III took home the Solar Grand Prize and was ranked 14th out of 29 entries in the Prototype category based upon measurement units of kilometre per litre of fuel.

Nanyang Venture III's improved aerodynamic features and solar power capturing ability, combined with its light weight carbon fibre honeycomb composite shell, helped it attain an [energy efficiency](#) of 316.1 km per kilowatt hour for its best run, a remarkable improvement over the 108 km per kilowatt hour achieved at the Shell Eco-marathon, Germany in 2009 achieved by Nanyang Venture I.

The fuel of choice for the 29 teams in the Prototype category was gasoline (petrol), diesel, LPG, ethanol and hydrogen. Nanyang Venture III was the only entrant to qualify in the solar car category out of five solar cars in the Prototype and Urban Concept categories. The efficiency of solar [electric cars](#) is measured in km per kilowatt hour of electrical energy instead of km per litre for other cars.

Student teams participated in either the Prototype or Urban Concept categories. For the Prototype category, teams entered futuristic

prototypes focused on maximizing [fuel efficiency](#) through innovative design elements. For the Urban Concept category, teams entered more "roadworthy" fuel-efficient vehicles.

A student leader from the team, Foong Herng Huei, 24, a third year student from NTU's School of Mechanical and [Aerospace Engineering](#) (MAE) said: "The team demonstrated persistence and character to achieve a significant improvement in fuel efficiency. It is a great honour to win the coveted Solar Grand [Prize](#) in the inaugural edition of the Shell Eco Marathon Asia. We have learnt a lot by putting into practice what we have studied in the classroom to the actual race track. We are grateful for the guidance and encouragement received from our professors."

Associate Professor Ng Heong Wah from NTU's School of MAE, led the team of 10 NTU students, assisted by visiting professor Rohan Senananyake. "Thanks to our high efficiency solar cells, we were the only qualifying team in the category, but we continued to compete with ourselves, tweaking the car to increase the distance for each run," said Prof Ng. "The team enjoyed every minute of it, despite the ups and downs, especially during the qualifying runs. The facilities at Sepang could not be better, we were well treated by organisers Shell Malaysia and the Sepang staff and for this we are extremely thankful."

Provided by Nanyang Technological University

Citation: NTU's solar car wins Solar Grand Prize at the inaugural Shell Eco-marathon Asia 2010 (2010, July 14) retrieved 28 April 2024 from <https://phys.org/news/2010-07-ntu-solar-car-grand-prize.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.
