NTU races to two awards at Shell Eco-marathon Asia

NTU Venture 9 cruised to victory in two categories – Technical Innovation and Safety – at the eco-car competition.

SINGAPORE: Nanyang Technological University (NTU) came in first in two categories at Shell Eco-marathon Asia, an eco-car competition challenging fuel efficiency and innovation.

NTU's three-wheeled eco-car, NTU Venture 9, beat more than 124 teams from 16 countries in two categories: Technical Innovation and Safety, said NTU in a news release on Monday (Mar 2). The competition was held at Luneta Park in Manila, Philippines over four days.

Mr Winston Tan, the team manager and final-year electrical and electronic engineering student said that the NTU Venture 9's tilting mechanism was “adopted from motorcycle racing where racers would lean left or right during sharp turns to maintain their handling”.

The NTU Venture 9 (right) clinches top spots in two categories at the Shell Eco-marathon Asia 2015. (Photo: Nanyang Technological University)
“It also comes with hand-made contoured silicon solar cells, which allows for maximum harvesting of solar energy at every angle,” added the release. The NTU Venture 9 finished in fourth place for the on-track race in the Prototype (Battery Electric) category in a field of 12 qualifying cars.

The university also submitted the competition’s first 3D-printed eco-car, NTU Venture 8, which was developed by students using 3D printing instruments. It is said to be Singapore’s first urban solar electric car, and has over 150 3D-printed parts mounted on a carbon fibre single shell chassis.

Two teams of 16 engineering students built the two cars over the course of one year in the NTU School of Mechanical and Aerospace Engineering’s Innovation Lab.

Associate Professor Ng Heong Wah, who mentored the two NTU teams, said: “The competition is tougher every year, with new teams joining the race. These awards are testament to the many months of hard work and perseverance of our students in preparing for the race, as well as their technological expertise and the advice given by their mentors.”

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