Flying high with hexacopters

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BEING the only team that successfully completed all the required "missions" earned UiTM's team Namtor the top prize in the UAV Siswa Challenge 2013/2014.

The Universiti Teknologi MARA (UiTM) undergraduates — Mohd Azri Mukhtarizan, 24, Ahmad Affiq Sukari, 23, Zafirah Husna Mohamad Amin, 23 and Nur Hanis Hazirah Mustapha, 23 — were challenged way beyond the classroom: from preparing and designing hexacopters to actually building and testing out their unmanned air vehicles (UAVs).

The competition saw 42 teams comprising 162 participants from UiTM, Universiti Sains Malaysia (USM), International Islamic University, Malaysia (IIUM), Universiti Malaysia Pahang (UMP), Universiti Putra Malaysia (UPM), and Universiti Teknologi Malaysia (UTM).

At a prize-giving ceremony at the Putra World Trade Centre (PWTC), Kuala Lumpur, Rafale International's Malaysian programe director Daniel Fremont who spoke on behalf of the organisers, said that he was delighted by the knowledge, capabilities and determination shown by the teams over the year-long competition.

"We are very pleased with the aptitude and attitude shown by the eight teams (that made it to the finals) in mastering advance aerospace technologies.

"By enabling these students to gain hands-on experiences similar to real-life commercial projects, the results have been outstanding," said Fremont.

UAVs are becoming more widely used in a growing number of industries as it allows autonomous flying without a pilot on board.

Consisting of an aerial system software, equipment and systems, it is more stable than a normal radio-controlled helicopter and has on-board GPS (global positioning system) and hands-free operations.

Team Namtor members were jubliant after their win as it wasn't something that they had expected.

"The four of us were interested in this competition because it was related to aerospace, even though we're studying mechanical engineering.

"However, the biggest challenge was our limited knowledge on the electrical and electronic components that make up the hexacopters," said Ahmad Affiq, glad for the opportunity to venture into one of his passions.

"We managed to get some advice from hexacopter hobbyists, so by combining their knowledge with our research, we could only hope to produce the best results," he said.

Mohd Azri said that the team had given its best although it had been quite weak during the presentation segment compared to the other teams.

Team Namtor will be flying off to France for a week-long study tour covering the civil and military aircraft final assembly lines in Bordeaux, a visit to the Snecma (a manufacturer of aircraft and rocket engines) factory for a briefing on the latest engine technology, as well as an experiential visit to the Virtual Reality Centre and the Immersive Reality Centre of Dassault Aviation in Paris.

High flyers: (From left) Mohd Azri, Ahmad Affiq, Zafirah Husna, Nur Hanis and team supervisor Dr Rizal Effendy giving the thumbs-up after their victory.

Its members would also get the chance to pit their hexacopter against four other teams from France in a UAV challenge in Paris.

Team Icarus and Team Langit Biru UPM, which hail from UPM, took the second and third place respectively.

The judges also granted a special award to Team Hex-ell from UTM for their perseverence in spite of their hexacopter's failure to take flight on the first day.

Organised by leading aerospace companies, Dassault Aviation and CTRM, in partnership with the Ministry of Education (MOE) and the Malaysian Industry-Government Group for High Technology (MIGHT), the challenge aims to support the human capital development of the Malaysian aerospace and aeronautical engineering workforce.

CEO and President of MIGHT Malaysia, Dr Mohd Yusoff Sulaiman, was pleased that the collaboration with leading aerospace companies like CTRM and Dassault Aviation enabled students to put theory into practice.

"When you bring the government, relevant industries and academicians together, something amazing happens," he said, reflecting on the opportunity the competition had provided the participants.

"I believe that the challenge has fuelled the passion in more students to pursue this field in the future, and I hope to welcome more of our young graduates into this growing industry," said Dr Mohd Yusoff.