

Innovative products at expo

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RESEARCH and development efforts within the education sector are essential to put Malaysia on the map as a technologically advanced nation.

The recently held Public Institutes of Higher Learning Research and Development Exhibition (IPTA R&D Expo) at the Putra World Trade Centre proved that the spirit of innovation is alive and well in local tertiary educational institutions.

Themed *Prosperity through global research and innovation*, the biennial exhibition was jointly organised this year by Universiti Teknologi Malaysia (UTM) and the Higher Education Ministry with the aim of providing public and private universities with the opportunity to exhibit innovative and viable research products.

Speaking at the award presentation ceremony, Higher Education Minister Datuk Dr Shafie Mohd Salleh stressed that such co-operation is vital to support the efforts of researchers in producing innovations.

"Local universities should be centres for discovering and spreading knowledge and new technology so as to support the country's aspiration in becoming a forerunner of technology in the future," he said.

This year's IPTA R&D Expo was the biggest since its inception in 2001, with 17 public institutions of higher education and one private university taking part. The three-day expo saw 406 research products being displayed.

Among the products which won prizes was the Oxygen Enrichment System (Oxes) developed by UTM's membrane research unit head Prof Dr Ahmad Fauzi Ismail and his team. Using a polysulfone hollow fibre membrane, this system increases the concentration of dissolved oxygen in the wastewater aeration process by about 1.6 times more than current methods.

With more oxygen available, the bacteria that break down waste products in wastewater (or sewage) can work more efficiently, thus cutting down on the cost and time needed for the process.

This innovation won the *Best of the best* award as well as the *Special award for potential to commercialise*.

Overall, co-organisers UTM won the most number of gold medals at the expo, with 22 out of its 50 exhibits obtaining the top prize.

The most number of medals was won by Universiti Kebangsaan Malaysia (UKM), with 80% of its exhibits winning a gold, silver or bronze medal.

All 11 of Kolej Universiti Kejuruteraan & Teknologi Malaysia (KUKTEM) exhibits won medals as well.

Eighty-three exhibits won a gold medal while 77 won silver medals and 113 exhibits won bronze medals.

Interesting research products included Universiti Putra Malaysia (UPM)'s Combat Armour, which is partially made from coconut shells, Universiti Malaysia Sabah (UMS)'s Stereo Vision-based Electronic Travel Aid (SVETA) for the blind and Universiti Sains Malaysia (USM)'s BioType: A Typing Biometrics Authentication System, which protects passwords and personal identification numbers by analysing an individual's pattern and cadence of typing.

There were also university-industry forums, presented by speakers from various ministries, government agencies and industry players, which addressed the issues and needs of R&D and commercialisation.

UTM vice-chancellor and joint chairperson Datuk Prof Dr Mohd Zulkifli Mohd Ghazali said that emphasis was given this year to quality products. New discoveries, industry co-operation, internationalisation and commercial potential were also given importance, he added.

A business matching session was also held to introduce new products and pave the way for commercialisation.