UMS enhances research with Japanese in nanofibre tech

Larry Ralon

KOTA KINABALU: Universiti Malaysia Sabah (UMS) and Tokyo Econet Limited Company enhanced their collaboration in technological innovation and human capital, specifically in the area of nanofibre technology development, Wednesday.

They sealed a memorandum of understanding (MoU) on this in a ceremony held at the Chancellory Building.

It was signed by Associate Prof. Dr Rosalam Sarbatly, who is the Dean of UMS’ School of Engineering and Information Technology, and Tokyo Econet Managing Director, Kondo Horoaki, witnessed by UMS Vice Chancellor Datuk Kamaruzaman Ampon.

Kamaruzaman, in his speech, said through the collaboration the university’s professors, research engineers and postgraduate students would be working closely with Tokyo Econet to develop technologies for the desalination of seawater and waste water by nanofibre membranes and nanofibres for oil spill clean-up at sea.

"Personally I am very excited about the tremendous prospects that this project offers and am looking forward to the highly significant outcome of this joint research, development and commercialisation on nanofibre technology," he said.

Hoping the project would become a model of a successful partnership between the university, industry, government and the people, he said, adding that nanotechnology in the form of nanofibres offered great potential.

He said applying nanofibre technology to create nanofibrous membranes would result in a highly viable solution for seawater desalination, potentially very useful for the State of Sabah where sources of drinking water are scarce.

This offers great capacity for the generation of potable water to the people in regions that require clean, drinking water all over the world, he said, adding that the nanofibre materials developed would also serve extremely well as a water/oil separator, and potentially could serve as a powerful solvent for oil-spill cleaning.

"Sabah’s offshore oil and natural gas reserves are extensive, and extraction efforts would be significant in the near future...nanofibre technology has the capacity to play an integral and highly significant role in decontamination efforts should an oil spill occur or when hazardous chemicals become released into the surrounding water off the off-shore facilities," he said.

The MoU was the result of several discussions and visits between the UMS and Tokyo Econet back in 2010.

Tokyo Econet is also part of a group of government agencies, non-governmental and non-profit organisations currently involved in the effort to rehabilitate the land and water areas severely affected following the Fukushima Daishi nuclear-powered power plant meltdown.

Horoaki said the efforts are continuing, using their nanofibre technology to trap nuclear radioactive molecules, but that it is still too early to tell (on the progress achievement) at this moment.

The process may take a long time considering the vast areas involved, he said, adding that the meltdown resulting from the impacts of Japan’s worst tsunami in 2010 had severely affected the agriculture and fisheries sector, particularly in the areas involved.

Kamaruzaman