



Mitsuhiro (left) showcasing a cloth made of nano fibres to UMS staff yesterday.

## UMS, Japanese company collaborate in nano fibre technology

By Jenne Lajun

**KOTA KINABALU:** Universiti Malaysia Sabah (UMS) yesterday agreed to collaborate with a Japanese company in the development of nano fibre technology.

The dean of the Engineering and Information Technology school, associate professor Dr Rosalam Sarbatly, said during the signing ceremony of the letter of intent with Tokyo Econet Limited Company, that the role of nano fibre technology and engineering towards sustainable development was new.

He explained that nano fibres comprise fibres with a diameter of less than 0.1 micron.

The production of nano fibres will be of great technological importance as a filtering media, he said.

Through the collaboration, UMS and Tokyo Econet Ltd will focus on three applications of nano fibres.

These are freshwater production, oil spills clean up and oil and gas industry processing, he said in his speech which was read by Professor Dr Duduku Krishnaiah.

"To focus on the desalination, the process intensification by reverse osmosis has been recognized since 1980s. Compared to the traditional techniques, the membrane process requires small plant size, low energy

consumption, high efficiency and low waste production. The high consumption of energy of the traditional thermal techniques is one of the main drawbacks for desalination."

Lately, membrane distillation has been reported to have the capability to compete with reverse osmosis in desalination, he said.

"The advantages of membrane distillation over reverse osmosis include low cost and energy saving, safer, more efficient in the rejection of non-volatile compounds, fewer mechanical technique/part demands and

lesser fouling.

"However, the nano fibres can fulfil the desalination requirement in water purification due to several contributing factors," he said.

He added that nano fibres may also be successful sorbents for oil spills cleaning.

However, the information on the usage of nano fibres in oil spills clean up using organic, natural and synthetic polymers is limited.

Mitsuhiro Takahashi represented Tokyo Econet Limited Company at the signing ceremony.