

LEARNING CURVE **PERSPECTIVE**

Go beyond the rhetoric

property can be minimised, saving millions of ringgit particularly during flash floods.

The device is designed to measure three levels of flood warnings, namely flood occurrence, alert and danger levels. A warning signal is sent as an SMS via a Global System for Mobile (GSM) modem to subscribers.

The modem consumes low power and is operable using batteries. By using optical fibres to detect a rise in water levels, the device is free from any electrical shocks arising from short circuits due to water in particular.

Overall, the combination of these ideas are evident that the university is able to seize the opportunities presented by the tragic floods, as is expected from a "thinking" university that remains engaged with the community at large.

While a crisis takes a lot of manual effort to put right, it is the "brain" that will ensure how a disaster-prone future will be averted, if not minimised. This is where the UTM examples bring much hope that universities can remain relevant beyond the usual rhetoric.

It is often said that a crisis presents two different dimensions: threat and opportunity. While the threats are rather obvious in many instances, the opportunities are less so.

There have been many crises of late and we need to make new inroads into creating new opportunities, not only to put things right but also make them better and more durable for the future, if not to prevent the crises from happening yet again.

This means that real brainwork needs to go into finding the best available or fashionable solution, given the urgency of the situation.

Perhaps this is where creativity and innovations come in handy. In this regard Universiti Teknologi Malaysia (UTM) — the latest research-intensive university — seems to be at the forefront by exhibiting more brain than brawn.

One example is its Portable Water

Filter Machine which produces clean water for flood victims. A praiseworthy alternative using the latest technology, it is developed by a group of researchers led by Associate Professor Ahmad Fauzi Ismail of the Engineering and Natural Resources Faculty, UTM. Flood victims housed at SK Perigi Acheh, Johor used the machine with the help of UTM working in close collaboration with the Science, Technology and Innovation Ministry.

The filter is designed to meet an emergency treatment of water in a disaster. It produces 5,000 litres of clean water in an hour for use — without the need for boiling — by 2,000 people daily. The water is filtered via "five modules or stages

of treatment, namely pre-treatment, ultra-filtrate, reverse osmosis, ultra-violet (UV) rays and softeners" according to Ahmad Fauzi. The reverse osmosis technology and ultra-filtrate stage enable the machine to treat sea water, brackish water and muddy water, among others. "The UV rays kill bacteria and viruses found in the processed water," he said.

More interestingly, the machine — which was awarded a research grant by the government — is reportedly made of 100 per cent local materials. This makes it affordable for every state to ensure that there is water supply during times of flood or drought.

Even more recently, UTM has reportedly taken pro-active steps in introducing three innovations in post-flood home construction, which consists of the Fast-Track Wall (FTW) System, Rapid Building-in-Box System (RaBIB) and Flood-Proof House. A prefabricat-



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