Surat khabar: The Star, Sarawak

Hari/Tarikh: 10/11/2012

Muka surat: S8

Tajuk: Safe, wearable sleeping bag

8 NEW

The Star, Sarawak, SATURDAY 10 NOVEMBER 2012

## Safe, wearable sleeping bag

Varsity's winning design at recent British Invention Show also doubles as a stretcher



**Brilliant inventions:** A prototype of the wearable sleeping bag design being exhibited at the 1st International Conference on Design and Innovation at Dewan Mutiara, DeTAR Putra, Unimas in Kuching and (inset) a sample of the fire retardant sound absorber panel made from sago waste. — ANDRE OLIVEIRO / The Star

By YU JI

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**KUCHING:** A wearable sleeping bag invented at Universiti Malaysia Sarawak (Unimas) which won a British award, appears like a full-body jacket upon first sight.

It is simple, comfy looking and logical.

Inspired by a group of student hikers who got lost on their way down from Mount Santubong earlier this year, a design team at the university saw an opportunity to innovate.

Led by Norhayati Suleiman. a senior textile and fashion design lecturer, the work began with a survey.

"We surveyed people including members of the boy and girl scouts, hikers and even storekeepers. We asked them about the common problems in similar outdoor activities," she told *The Star* here this week.

"Based on the consumer feedback, we had this idea that we should think up, literally, a wearable sleeping bag."

It took about a year to design, manufacture prototypes and readjust the wearable sleeping bag's initial goals.

The Diamond Award winning entry at the British competition fulfils its namesake — it is literally wearable.

It is light in some parts and thick in others to help keep out the cold or heat, and also reflective in other parts to keep the heat out.

Crucially, the invention has safety measures built in. Around the opening of the hood is space for a zipper. "You can zip on a mask over your face or a net," Norhayati said, "to keep out the insects when you sleep in the jungle at night.

"Consumers told us they often worried about insects falling onto their faces. It can be used by beekeepers as well."

And true to its design inspiration, the most important feature of the wearable sleeping bag as that it doubles as a stretcher.

"You can find rods or sticks in the jungle and slot them into openings in the sleeping bag. Or you can just lift the person in it with the four ends," Norhayati said.

During the interview at the opening of Unimas' first "International Conference on Design and Innovation", the textile and fashion design lecturer was hesitant to reveal more details about the invention's safety aspects.

Upon winning in the British Invention Show, the design team has been showered with international commercialisation offers.

Norhayati's hesitancy stems from Unimas's hope to either enter a joint venture with an international manufacturer or register a patent, thereby protecting the intellectual property.

The design team is also researching better materials which could increase the sleeping bag's weight-bearing capacity (when used as a stretcher) from 80kg to 100kg.

Despite the stunning win, a wearable sleeping bag is unlikely to be on the shelves of retailers any time soon.

Unimas vice-chancellor Prof Datuk Dr Khairuddin Abdul Hamid says it was a "weakness" of the Malaysian research and development segment of failing to get innovations and inventions from lab to marketplace.

"In Malaysia presently, we seem unable to get innovations into the marketplace. We don't know how to make it into business. We don't mind if we can get this invention (the wearable sleeping bag) into the international market (before Malaysia). We would like that opportunity if presented to us," Khairuddin told reporters.

At the Unimas conference, there were other bright ideas waiting for their turn at commercialisation. Some, like the other British Invention Show winners, were recycled building materials.

A Gold Award winner was a sound absorber made from sago waste that could also be turned into a fire retardant.

Unimas said the recycled building materials helped to close the waste loop from sago estates, with the same density as conventional materials at 51% less weight.

Malaysia Design Council chairman Prof Datuk Dr Ahmad Zainuddin shared the same unenthusiastic view of Malaysia's manufacturing sector as did Khairuddin.

Ahmad said the career prospects for many young Malaysian innovators, designers and inventors were often dim.

"We have about 4,000 people who graduate into the market every year, from varied disciplines — fashion designers to industrial engineers — but the problem is, are there any takers?

"Yes, we produce new designs, but where are the takers?" he said.