



## FSTI RESEARCHERS DEVELOPED MOBILE AND ENVIRONMENT-FRIENDLY WATER TREATMENT SYSTEM

The system has several treatment stages - reducing Total Suspended Solids (TSS), especially high heavy metal content. The system also stabilises the water to the right pH level to make it fit for drink and other daily uses.

By: DR. WAN MOHD FAIZAL WAN ISHAK AND DR WAN MOHD HAFIZUDDIN WAN YUSSOF

Flood disaster that occurred each year caused a lot of problems to public amenity system – clean water supply system was compromised, electrical grid failed to function and infrastructure was damaged. All these led to water pollution in the affected, populated areas.

Contaminated water sources are likely to trigger diseases such as diarrhoea.

Statistics revealed in 2005 by the World Health Organisation showed that diarrhoea was the main reason that led to the death of 90% of children aged below five in developing countries as they had low body resistance.

Faculty of Industrial Sciences & Technology (FSTI) Lecturer, Dr. Wan Mohd Faizal Wan Ishak said residents in Kuantan were badly affected when clean water supply

was disrupted due to floods two years ago.

“It was an example of how bad the situation could be,” he added.

“As such, various types of water treatment systems have been designed to make it fit for use during emergency and disaster. However, by using imported products in each of the system, it is seen as contributing to added costs which make the current system a limited choice.

“This led us to design a mobile and environment-friendly water treatment system. The focus is to reduce production cost but making certain of the filter effectiveness so it can be used during an emergency such as during the flood or drought season,” he said.

He added that the system could treat water from various sources such as rainwater

or floodwater and could supply clean water in a short time, making it operable during crises.

“The system has several treatment stages - reducing Total Suspended Solids (TSS), especially high heavy metal content. The system also stabilises the water to the right pH level to make it fit for drink and other daily uses.

“In order to ensure that the system is effective, an environment-friendly filter has been designed so the quality of water is guaranteed.

“The water filter is made from palm oil factory waste that is processed and activated for filtering or treating almost all kinds of water. It can produce clean water that meets the minimum standard for drinking water,” he said.