Awards

UMP student wins Innovate Malaysia Excellent Award Special Award

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KUANTAN, 9 August 2021 - A student from the College of Engineering (KKEJ), Universiti Malaysia Pahang (UMP), Lim Wei Jie, was named the winner of the Innovate Malaysia Excellent Award 2021 Special Award and won first place for Intel Technology Track in the online Innovate Malaysia Design Competition recently.

Due to the increasingly alarming COVID-19 cases, a study titled COVID-19 Mandatory Self-Quarantine Wearable Device for Authority Monitoring with Edge AI Reporting & Flagging System was developed under the supervision of KKEJ lecturer Associate Professor Dr. Nor Maniha Abdul Ghani to facilitate the online monitoring and investigation of cases of violation of the mandatory quarantine order at home by the authorities.

It can also prevent or break the chain of COVID-19 infections in the country.

According to Lim Wei Jie, the Enhanced Movement Control Order (EMCO) did not stop him from completing the study last month after submitting a paper in November 2020.



“This study revolves around individuals who need to be quarantined or return from abroad who will register their personal information and take pictures during registration.

“This system contains the Healthcare-Monitoring-Isolation (HEISM) app for individuals who are being quarantined, the Isolation Wearable Tracing App (CTRACE) for community and the HEISM Monitoring Dashboard for the authorities.

“The HEISM Monitoring Dashboard app will assist in implementing Edge AI Face Recognition on individual photos during registration,” he said.

He added that individuals to be quarantined will get a wearable device that will replace the bracelet and can be connected to the HEISM app on their mobile phones using Bluetooth technology.

During the quarantine at home, they need to upload a selfie, report health status and provide the current location at certain time intervals through the HEISM app on their mobile phones.

“Through the regularly reported health status, oxygen levels can be monitored through an oximeter sensor on this low-cost wearable.
“This can reduce the rate of brought in dead (BID) cases to the hospital as reported recently.

According to Associate Professor Dr. Maniha, all this information or data will be displayed on the HEISM Monitoring Dashboard for monitoring by the authorities.

“A report will be displayed automatically through the HEISM app if the individual to be quarantined does not update the health status, or there is a case of quarantine violation.

“We really hope to work with the Ministry of Health Malaysia (MOH) through the MySejahtera app, and the authorities can monitor in real-time for individuals who violate the mandatory quarantine order,” she said.

For more information on this app, Associate Professor Dr. Maniha can be contacted through normaniha@ump.edu.my.

By: Mimi Rabita Abdul Wahit, Corporate Communications Unit, The Office of The Vice-Chancellor

Translation by: Dr. Rozaimi Abu Samah, Engineering College/Faculty of Chemical and Process Engineering Technology

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