

# NANOSATELLITE UiTMSAT-2 MISSION IDEA SYMPOSIUM



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Fourteen members of IEM@FKE student section, UiTM Shah Alam, visited Kyushu Institute of Technology Kyushu (Kyutech) in Japan on 21-26 January 2019. They were led by Assoc. Prof. Ir. Dr Mohamad Huzaimy Jusoh, Director of UiTM Centre for Satellite Communication under the programme, Nanosatellite UiTMSAT-2 Mission Idea Symposium: An International Mobility Program (IMP) to Kyutech, Japan.

The aim was to enhance the students' skills and involvement in practical projects by providing them with a platform for sharing their ideas. The UiTM Space Crew had already launched and deployed Malaysia's first nanosatellite, UiTMSAT-1, from International Space Station (ISS) into space on 29 June and 10 August 2018. Subsequently, this programme led to the development of nanosatellite project UiTMSAT-2, a continuous encouragement for students to be involved in high-tech critical thinking projects.

The students had prepared four missions for this programme: Automatic Identification System (AIS),

Store & Forward (S&F), Earth Storm Detector (EDS) and Satellite Camera.

AIS is an automatic tracking system for locating the whereabouts of sea-going vessels. It can capture and store at least 89% of AIS messages from ships anywhere in the world and then transmit these to ground stations for tracking the location of the vessels.

S&F allows the collecting of data in certain areas periodically and these are sent to ground control for analysis. The data is then used to monitor (rising) water levels as well as predict and alert flooding, especially in rural areas along the east coast of the peninsula.

EDS is used to detect stormy weather and to provide alerts as a defensive step against natural disasters.

Lastly, the Satellite Camera enables the capturing of wider images from space, especially of places that may otherwise be inaccessible. Important images include that of illegal logging activities deep inside the jungle and of areas that may have lost connection due to natural disasters. ■



From left: Hasif Azami, Adizul Ahmad and Assoc. Prof. Ir. Dr Mohamad Huzaimy Jusoh with the students