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ASEAN MULTINATION COLLABORATION PROJECT: CRAFTING INDIGENOUS SPACE
PROGRAM IN MALAYSIA

Abstract

The launching of the first Malaysian Nanosatellite, UiTMSAT-1, in 2018 to space sparks the indigenous space program in the country. It has made Universiti Teknologi MARA (UiTM), a Malaysian member of the BIRDS program, inspire other space enthusiasts and entities to expose and emerge the space activities and potentialities for the advancement of national space technologies. UiTMSAT-1 development was under the collaboration project of Joint Global Multi-Nation BIRDS-2 with Kyushu Institute of Technology (Kyutech), Japan, in which other developing countries such as Bhutan and the Philippines were involved. In sustaining and spreading the BIRDS program's satellite technologies, Kyutech encourages all BIRDS countries to develop their second nanosatellite locally. In the recent progress, the research team from UiTM managed to secure funding from the Malaysian Ministry of Science, Technology, and Innovation (MOSTI) for a project of 1U-sized nanosatellite development. The nanosatellite's primary mission is to capture images of the Earth using an improved ground-resolution camera payload onboard. Interestingly, the nanosatellite project is a multination collaboration project between Malaysia, the Philippines, Thailand, and Japan. The project was officially kicked off in February 2021, and the launch of the nanosatellite will be in the end of 2023. The project will be utilizing local experts from UiTM and existing facilities in the country while supported by students and researchers from the University of Perpetual Help System DALTA (UPHSD), Philippines, and King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand. The flight model integration and launching preparation will be conducted in Kyutech, Japan. Other entities such as space agencies, ministries, industries, and NGOs will get involved in the project by providing required capacities such as space policy, governance, and management. With the project's implementation, it will be the surge to bring up the space field in developing the technological advances in Malaysia and other developing countries in ASEAN while opening the eyes of many potential entities for a space-related collaboration project. Besides, it will allow the involved partners to utilize data from the nanosatellite, hence introducing the platform for data sharing and strengthening the bridge and linkage of collaboration.