

## **Establishment of Space Technology Research Center Reveals Tamkang's Determination for Development**

Tamkang University has passed the establishment regulations for the "Center for Astronautics and Space Exploration (CASE)" and plans to establish it in the second semester of the 2023 academic year. In addition to enhancing research capabilities in space technology-related fields, the center will also focus on practical information integration and utilization. This initiative also serves as an external declaration of our university's determination to accelerate space technology development.

Dr. Fu-Yuen Hsiao, chair of the Department of Aerospace Engineering, stated, "Looking ahead, the vision of Tamkang's Aerospace Engineering Department extends beyond small-scale sounding rockets." In the future, the research center will support in-house space technology research and development, recruit and integrate more interdisciplinary experts, and actively undertake commissioned projects from external organizations. He mentioned that since 2022, Tamkang University has been participating in the CubeSat team of National Cheng Kung University. He is responsible for developing new orbital control technology in the "Lilium2&3 CubeSat" constellation project scheduled for launch in 2025. The first CubeSat, Lilium-1, was successfully launched on December 2, 2023, at 2:19 AM using a rocket from SpaceX from the Vandenberg Base in California, into a low Earth orbit of 520 kilometers and has been operational since then. The following 2 satellites, Lilium2 & 3, are scheduled for launch in 2025, where the new orbital control method developed by the Aerospace Engineering Department will be verified on these 2 satellites. After the establishment of CASE, it will provide more energy in subsequent technological developments.

TASA is expected to host the International Astronautical Federation (IAF) International Workshop on Satellite Constellations and Formation Flying (IWSCFF) in December this year. Dr. Hsiao serves as a member of the organizing committee, and CASE will also participate as a co-organizer.



Tamkang University's 2 successful launches validate our capabilities in executing small-scale scientific rocket projects. The image shows the impressive launch of our second successful rocket, Jessie. (Image provided by TASA)