Rockets – the Key to Space, Can Taiwan Make It?

中年阿伯的太空夢

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In this talk, I will briefly review the current status of global space technology and application, which focuses on the use of satellites and satellite launching capability. Analyses show that Taiwan is highly justified to develop space technology in terms of her strength in economy and military spending by sending satellites into orbit to serve its people for peaceful/economic purpose. I will also propose what Taiwan should do in the near future to cultivate its own niche space technology which will benefit economic and scientific development. These include nano/micro satellites in LEO and skim satellite in VLEO, among others. Then followed by brief introduction of history, classification and pros/cons of rocket propulsion technology. This explains why ARRC is currently devoted to developing hybrid rocket propulsion technology. Current status and future plan of ARRC are described. Its role in future space exploration is also outlined. At the end of the talk, a conceptual design of TISpace-1 which is designed to send 50 kg of payload into 400 km LEO in 2019 will be presented. Multidisciplinary engineers are desperately needed for reaching this challenging goal. In addition, many interesting and touching stories behind the development of his highly adventurous pathway will be shared in this talk.