## **Space Precision Atomic-clock Timing Utility Mission (SPATIUM)**

## **Introduction of Mission**

Joint collaboration NTU and Kyutech Institute of Technology (Kyutech). SPATIUM presents a new technique for real-time ionosphere dynamic study at low earth orbit (LEO) using CubeSats platform equipped with Chip Scale Atomic Clock (CSAC). This mission aims to demonstrate the principle of total electron content (TEC) modelling and ionospheric plasma mapping based on phase-shift in dual frequency satellite signal transmissions received at multiple Ground Stations with same reference clock.

**Ground Stations Network** 

Data collection from ground stations across a wide geographical area allows more precise and complete analysis on the ionospheric plasma study. Point of Contact: Holden Li (NTU)

Cho Mengu (Kyutech)

Launch Q3/Q4 2018

Temasek Laboratories@NTU