

CanSat & Rocket Experiment('99~)



Hodoyoshi-1 '14



Water Quality/level Management by Micro/nano/pico-satellites

Team
University of Tokyo



CubeSat 03,05



PRISM '09



Nano-JASMINE '15

Summary

- **Store & Forward Technology**

- Frequency (920MHz) must be checked as legal in each country
- Managing transmission timing(when and how to start transmission), adequate frequency against noise need to be discussed continuously
 - Transmit data every 1 min.
 - Responds to the uplink trigger from the satellite (10km beam width)
 - Satellite scan the ground sensor, sensor will send back the data.Uplink energy is generated by Downlink RF power from satellite.
Phased Array Antenna can be used.

- Items to be sensed : Water Level, Temperature, PH, O2, Turbidity, Soil Moisture
- Application : Landslides, Buoys, etc
- To attend IEEE Internet of Space Conference (15th Jan 2018)

Summary

- Collaboration

- TRICOM-1R will be launched within a month.
- The University of Tokyo will distribute the ground transmitters to the collaboration members for demonstration of the concept
- Future : Provision of the BUS, S&F modules and working together
Modular Deployable Antenna could be the issue
- Jointly work with to acquire budget from each government ,JICA and etc.

Thank you for Attending !!

