CLTP 5 Introduction

My yesterday, today & tomorrow;

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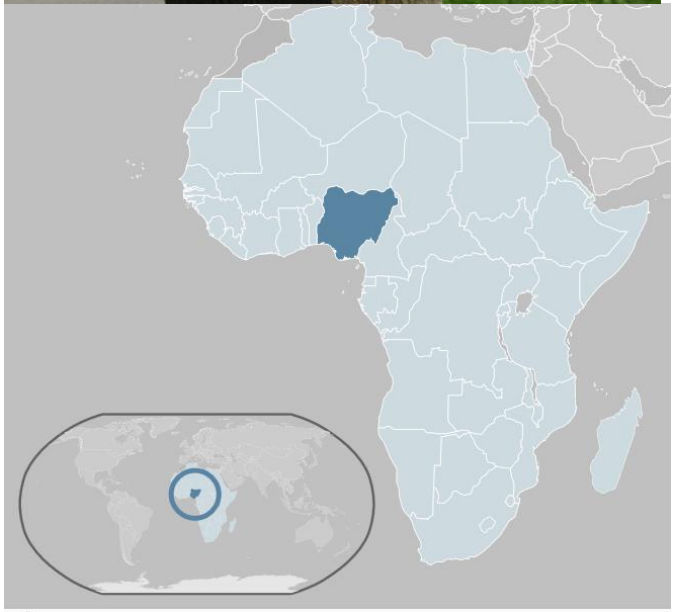
Introduction

- **Born** in the city of Lagos, Nigeria

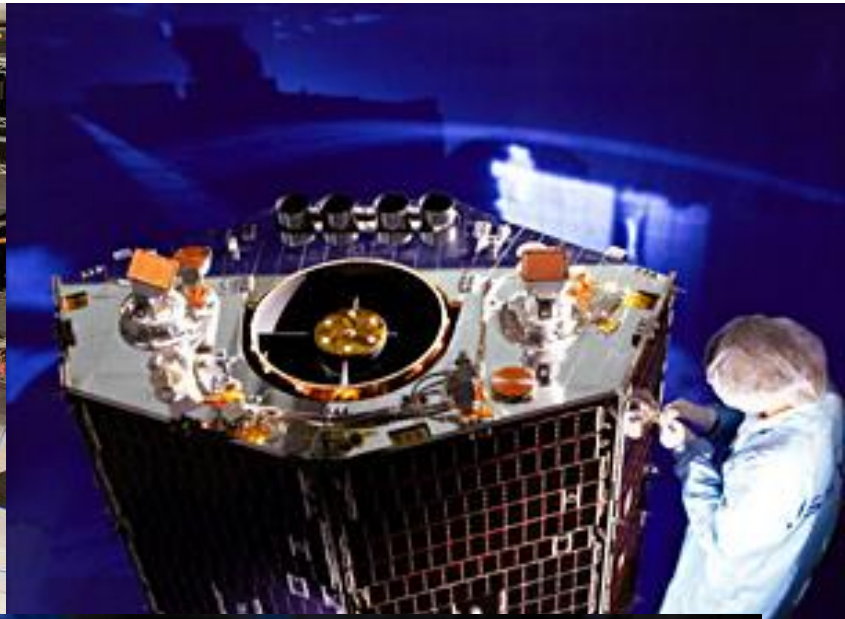
  My best elementary school rhyme;

  "Twinkle, twinkle little star…."



- **Education;**
  - MSc(2015); Kyushu Institute of Technology, Japan
  - PGD; ARCSSTEE, Nigeria
  - B.Eng.; Ahmadu Bello University. Nigeria
- **Affiliations;**
  - Scientist at NASRDA, Nigeria
  - Master Student at LaSEINE, KIT

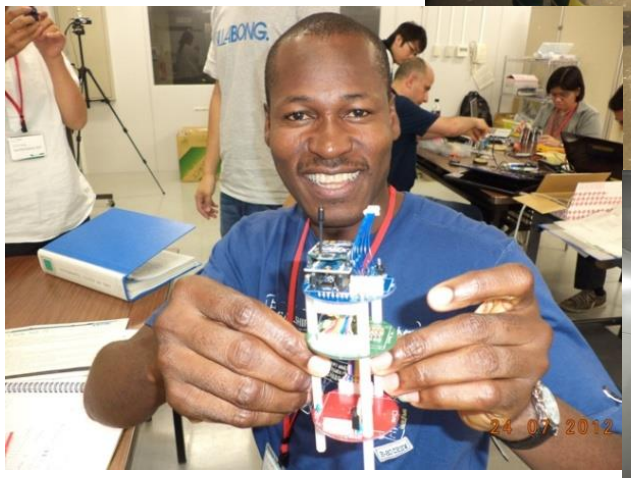
Nigeria Space Program



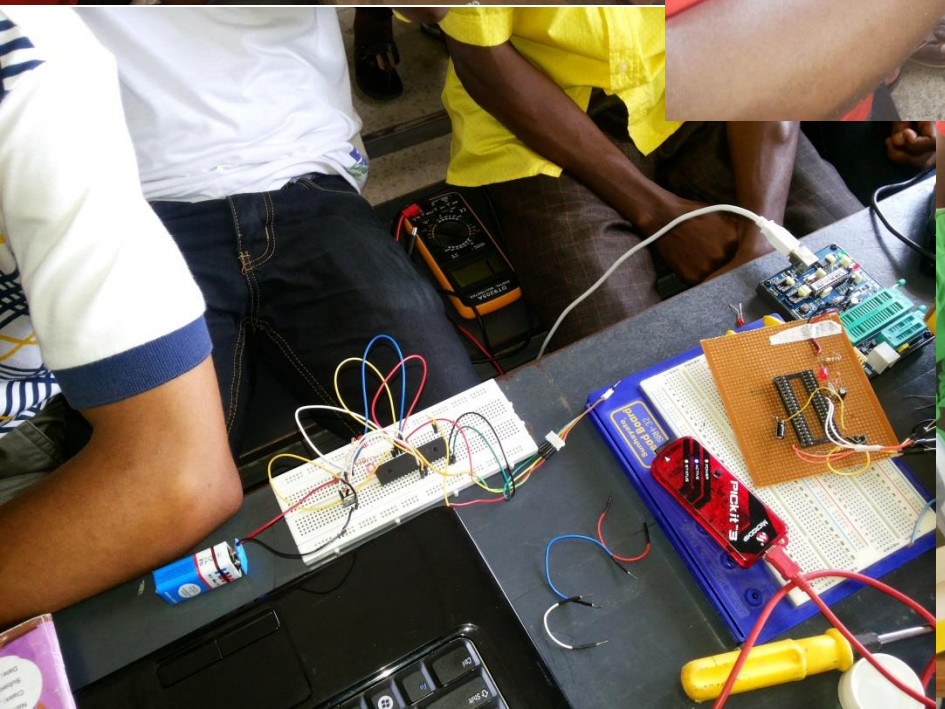
CLTP 3 Experience

July 17 - August 20, 2012

TOKYO METROPOLITAN UNIV.



Post CLTP; NigeriaEduSat Project



Welcome to LaSEINE

Space Environment Research

- Research on spacecraft charging
- Hypervelocity impact
- Material degradation and
- Nano-satellites testing.

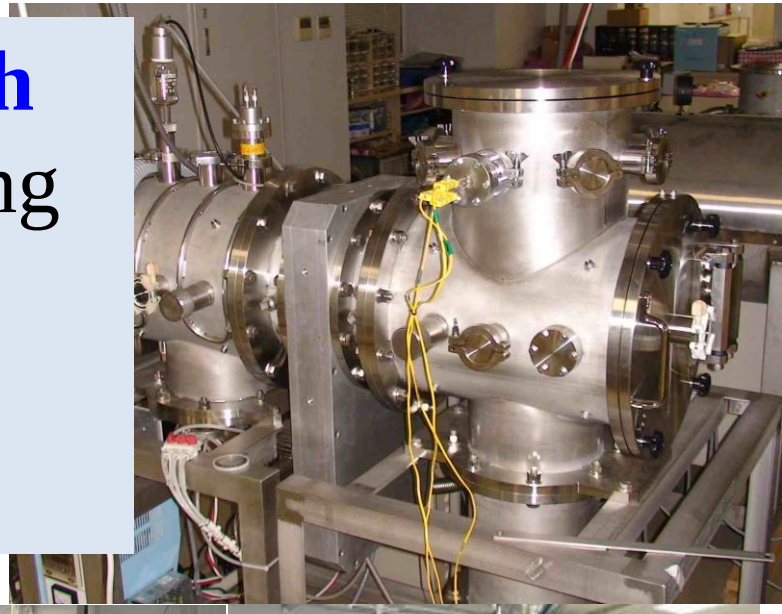


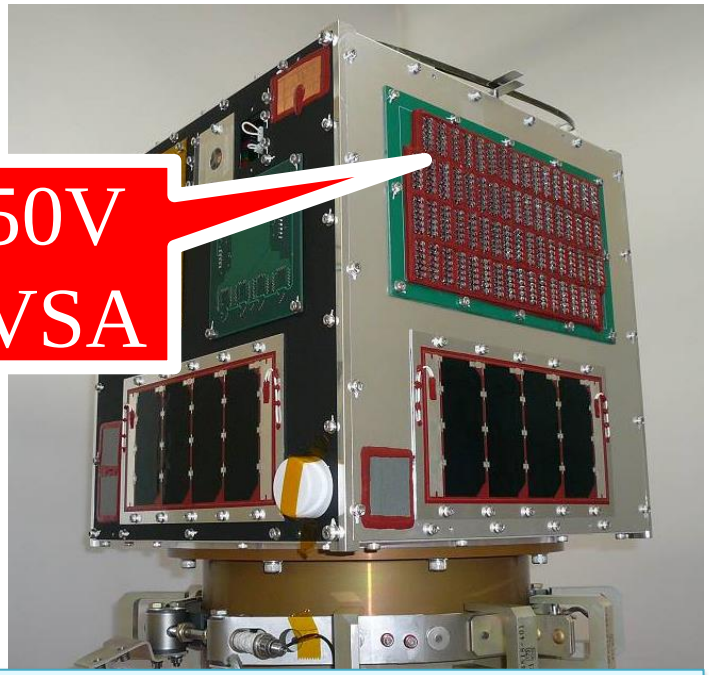
Photo Source; http://cent.ele.kyutech.ac.jp/

My Research @ LaSEINE

High Voltage generation in Space is becoming more important

High voltage lead to charging and arcing risks due to the high density ambient plasma in LEO

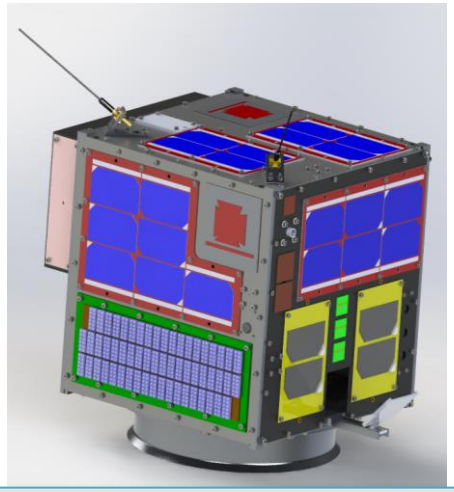
Size	30cm Cubic
Mass	7.1 kg
Main mission	Study discharge phenomenon In Space
Other Missions	350V generation in orbit , ELF, Trek , EO- camera ,Debris sensors
Orbit	PEO, Sun Synchronous Orbit (670km, 98.2 degree)
Launch Date	May 18th, 2012. (HIIA Rocket)



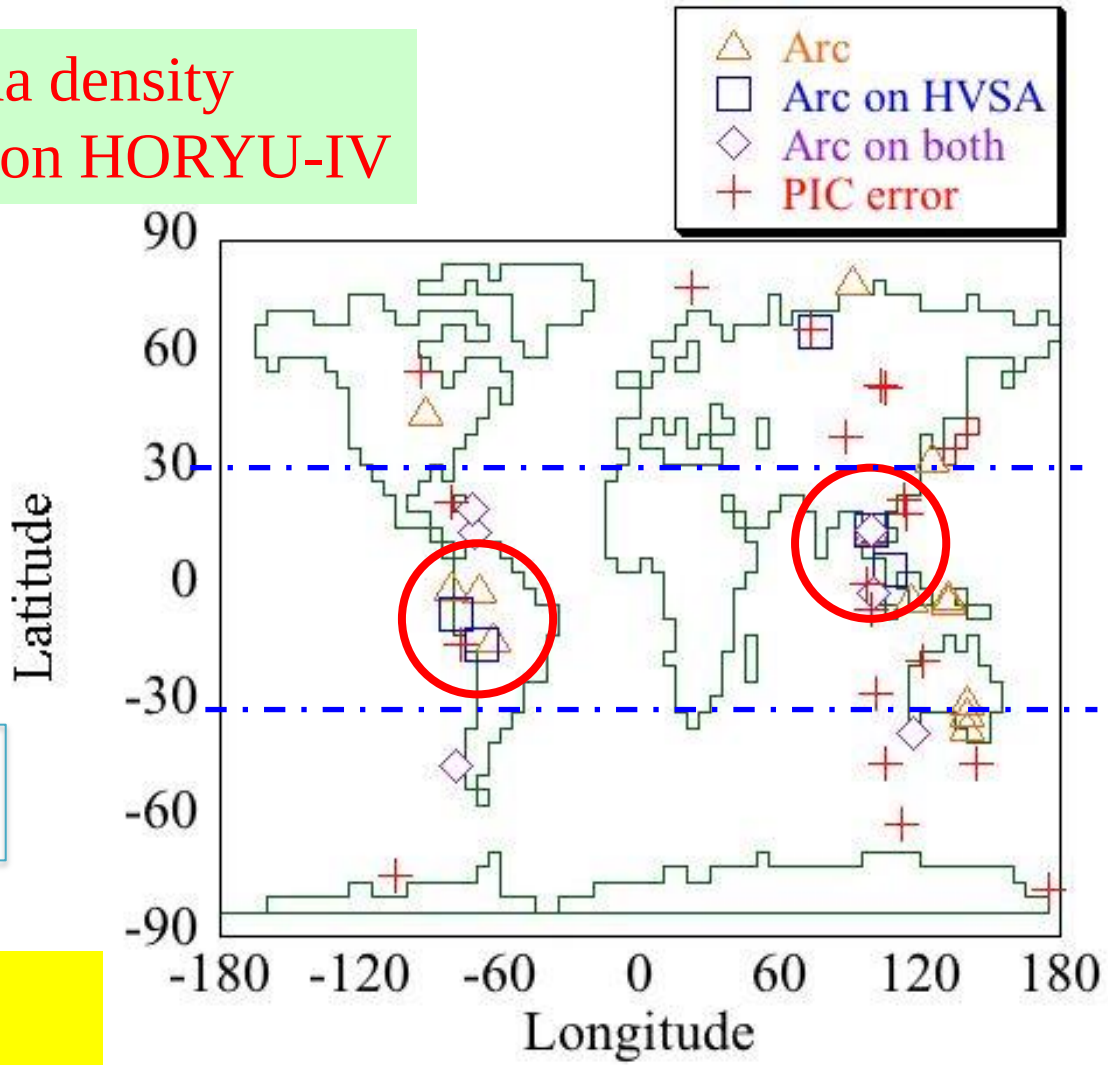
Horyu-II Satellite
Kyushu Institute of Technology

Research Motivation

Need to Measure Plasma density
during discharge experiment on HORYU-IV



HORYU-4; Arc Event Generator
and Investigator Satellite



Source; Shunsuke I. Master thesis, KIT, 2013

It can also contribute to
Global Ionospheric Study

HORYU-4 and DLP Mission

HORYU-4 (8kg, 40cm Cubic, 575 km, ±31)

Mission-1

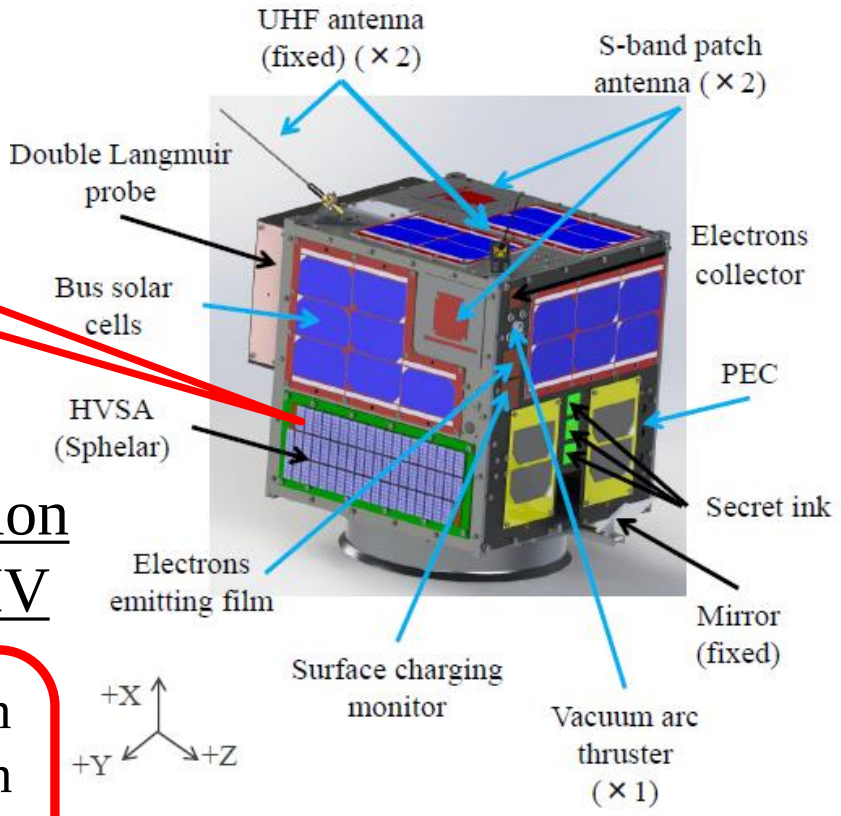
Measure Plasma Parameters during Arc Event and discharge Experiments.

- Electron Temperature
- Electron number density
- Debye Length

Mission-2

Demonstrate in orbit Probe Contamination Cleaning Using high voltage of Horyu-IV

300V

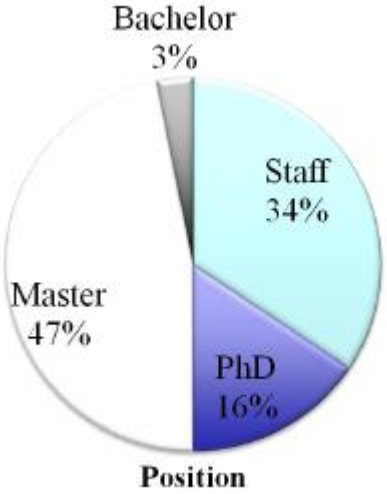


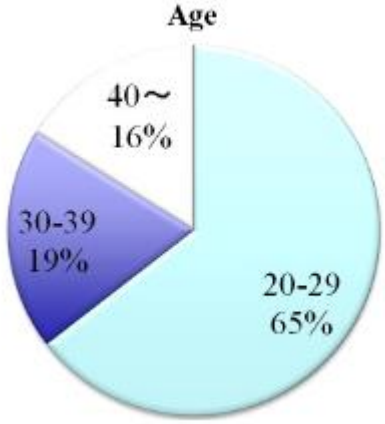
Source; H4_JAXA Hearing document

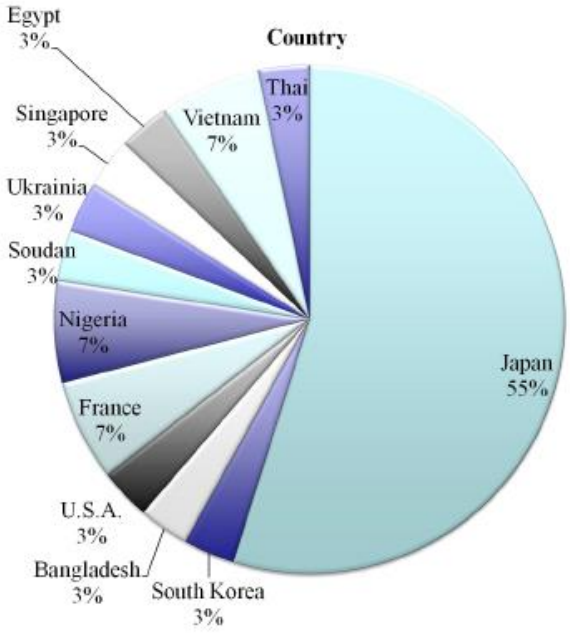
HORYU-4 will be launched to an orbit of 575km, 31deg inclination within Japanese fiscal year of 2015 via H2A rocket

HORYU-4 Team

- 30 members
- 12 countries
- 3 departments







Source; H4_JAXA Hearing document

We want to do the impossible

La SEINE

Thank you for your attention

http://cltp.info/

Let us Enjoy CLTP5 and Hokkaido University