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Post-graduate study on Nano-Satellite Technologies (PNST) Experience Webinar

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Self Introduction

Seoul National University (2010-2016) (under Prof. Jeung with SNUSAT Projects) AngelSwing Drone Startup (2016-2017)

Kyushu Institute of Technology (2017-2020)

- PhD under Prof. Mengu Cho
- BIRDS-3 Satellite Project [3x1U]
- KITSUNE Satellite Project [6U]

Antarikchya Pratisthan Nepal (Space Foudation)







Unique Edu. Program

All taught courses taught in **english** Complete course on Satellite Technology

Industry/JAXA experts involved Special lectures on Law, Entrepreneurship Interactions with Astronauts and leaders in the field Book and research seminars

Theoritical knowledge complimented by PBL* *Project Based Learning*

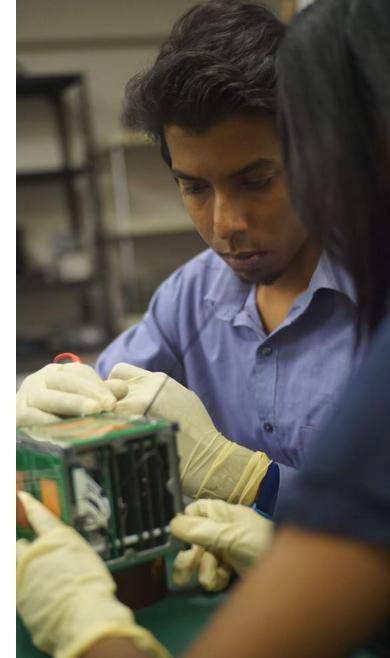
Hands-on Satellite Project(s)

End-to-End satellite development

- Find requirements from stakeholders
- Directly involved in dialogue with governments
- Build and test satellite design
- Finalize design and launch satellite
- Coordinate frequency and build ground stations
- Operate satellite and analyze data

Multiple satellite projects

Lessons and know-how passed on by previous projects







Research Activities

Ariticifial Intelligence (Machine Learning) Edge computing, edge inference

Improving existing satellite BUS system Focus on inhouse system design and improvement Open sourcing and mainting systems

Research seminars every Wednesday Research journals and conference papers International/National conference attendance

State-of-Art Facilities

CeNT (Center for Nano-Satellite Testing)

- Thermal Vacuum Chamber
- Vibration Shaker
- Shock
- Anechoic Chamber
- Clean room for integration Upto 50 kg class satellite

Context: We used fly from Korea to test our satellite at Kyutech







Building Connections

Multiple generation of satellite teams Supporting and helping each other Form tight community Support of world class faculty

Prof. Maeda: "It's not what you know, it's who you know"

20-30 countries involved at any given time Alumni network is supporting the work at home

Life Outside Campus

Kokura, Mojiko and Simonoseki Fukuoka is closest, largest city Kyushu as an island is famous for "onsen"

Plenty of housing options

Gym facility Onsen (Hot springs) 24-hour "Combini" stores Shopping areas and restaurants nearby







Post PNST

Take leadership role

Build infrastructure from ground up Work with alongside the government Lead satellite projects and replicate work Invest in building human resource Raise funds and lobby for funds Organize conferences and conduct outreach Cultivate relationships nationally/internationally

Alumni network is the biggest asset



Thank You