

How to develop UNISEC Student Organization (UNISON) in the Philippines?



Group Members

Philippines

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Japan

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How to develop UNISEC Student Organization (UNISON) in the Philippines?



CURRENT Situation:

1. Space Education/Engineering/Science/Technology ?
2. Weaknesses → Challenges
2. Strengths → Opportunities
 - Human Resource? - Technical Capability?
 - System and Facilities? - Existing National Plans and Program?

Do you have Space Agency in the Philippines?

Weakness : NO Space Agency

Strength : Department of Science and Technology (DOST), NAMRIA, NDRRMC and several agencies doing operational and applied space science and technology.

Current status : Bill has already been drafted and submitted to the Congress (2012) for the creation of Philippine Space Agency (PSA)

Do you have Space Education in the Philippines?

- Weakness : NO official Space Engineering Course
- Strength : Implicitly included in the curriculum of Science and other Engineering Education
- Current status : -- Strong human resource in the field of Research and Engineering (both academic & industry)
- Academe is moving towards the establishment of Space Engineering Education

Engineering Research and Development Technology (ERDT) Consortium



ERDT CONSORTIUM

University of the Philippines
Diliman
Ateneo de Manila University
Central Luzon State University
De La Salle University
Mapua Institute of Technology
Mindanao State University-Iligan
Institute of Technology
University of San Carlos
University of the Philippines Los
Baños



Human Resource and Technical Capability?

Weakness : NO Space Engineers









Strength : Strong human resource in the field of Aeronautics and Engineering

Current status : Enough resources and teaching faculties.
Increasing numbers in graduate students
Increasing outputs resulted from university-based research and study

University of the Philippines – Diliman

College of Engineering

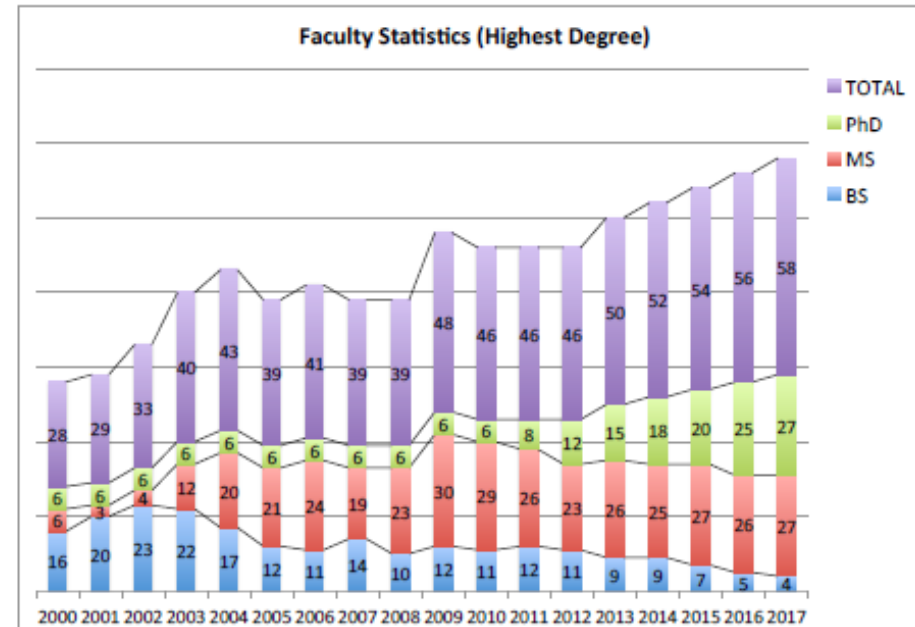
Departments and Institutes

	• Chemical Engineering		• Geodetic Engineering
	• Civil Engineering		• Industrial Engineering & Operations Research
	• Computer Science		• Mechanical Engineering
	• Electrical & Electronics Engineering		• Mining, Metallurgy & Materials Engineering
• Energy Engineering			
• Environmental Engineering			

University of the Philippines – Diliman College of Engineering Faculty Profile

Departments/Institutes	As of 2 nd Semester 2012			
	PhD	MS	BS	Total
Chemical Engineering	9	5	14	28
Civil Engineering	20	6	20	46
Computer Science	9	16	9	34
Electrical and Electronics Engineering	18	25	7	50
Geodetic Engineering	3	7	4	14
Industrial Engineering and Operations Research	3	13	6	22
Mechanical Engineering	3	5	9	17
Mining, Metallurgical and Materials Engineering	6	15	7	28
Total	66	91	78	235
Percentage	28%	39%	33%	100%

Faculty Profile



The UP-EEEI has the largest number and concentration of advanced degree holders in electrical, electronics and computer engineering in any institution – academic, industry or government – in the Philippines.

We have embarked on an aggressive faculty development plan that will enable us to reach an "all-PhD" faculty by 2025.

envision.
explore.
excel. **innovate.**

System and Facilities?

- Weakness : NO Testing Facilities (vacuum chamber, etc.)
- Strength : Numerous research laboratories in different universities

Research laboratories

<http://www.eee.upd.edu.ph/research/>

Research Laboratories

- Address a broad spectrum
 - Instrumentation
 - Robotics and automation
 - Microelectronics
 - Digital signal processing
 - Power electronics
 - Wireless
 - Electric power
 - Software applications
 - Renewable energy



Existing National Plans and Programs?

Weakness : Early-age of research and development

Strength : The Philippines government is now moving into space development

Current Status: Department of Science and Technology (DOST)
PHL-MICROSAT Project

National Science and Technology Plan (NSTP)

Medium Term Philippine Development Plan (MTPDP)

Opportunities: DOST's PHL-MICROSAT Project

To build, launch and effectively utilize micro--satellite technology for multi--spectral, high precision earth observation – by Filipino engineers and scientists working with Japanese counterparts

- ✓ MicroSat Research Facility
- ✓ Ground Receiving Station



Opportunities

Opportunities: National S&T Human Resource
Development thru Engineering
Research and Development
for Technology (ERDT)

- ✓ Make Engineering Education accessible thru scholarships and training programmes.



Challenges?

- Can we develop UNISEC Student Organization (UNISON) in the Philippines?

→ YES!

Suggestions – based from Japan experience

1. Utilize existing university group or clubs in several universities
 - as entry point to promote space
2. Launch social media campaign
 - Kim Herrera in-charge
3. CLTP activities
 - thru UNISEC focal point - person attended such activities
4. Continuing capacity building
 - learn experience from others

Conclusions and Future Work

1. Promote awareness about UNISEC and UNISON

→ To talk with the right people

- academic engineering institutions and agencies working in space- related activities and programmes

2. Establish local chapter for UNISEC and UNISON Philippines

→ Encourage joining UNISEC

→ Promote and strengthen international collaborations



Thank you very much!