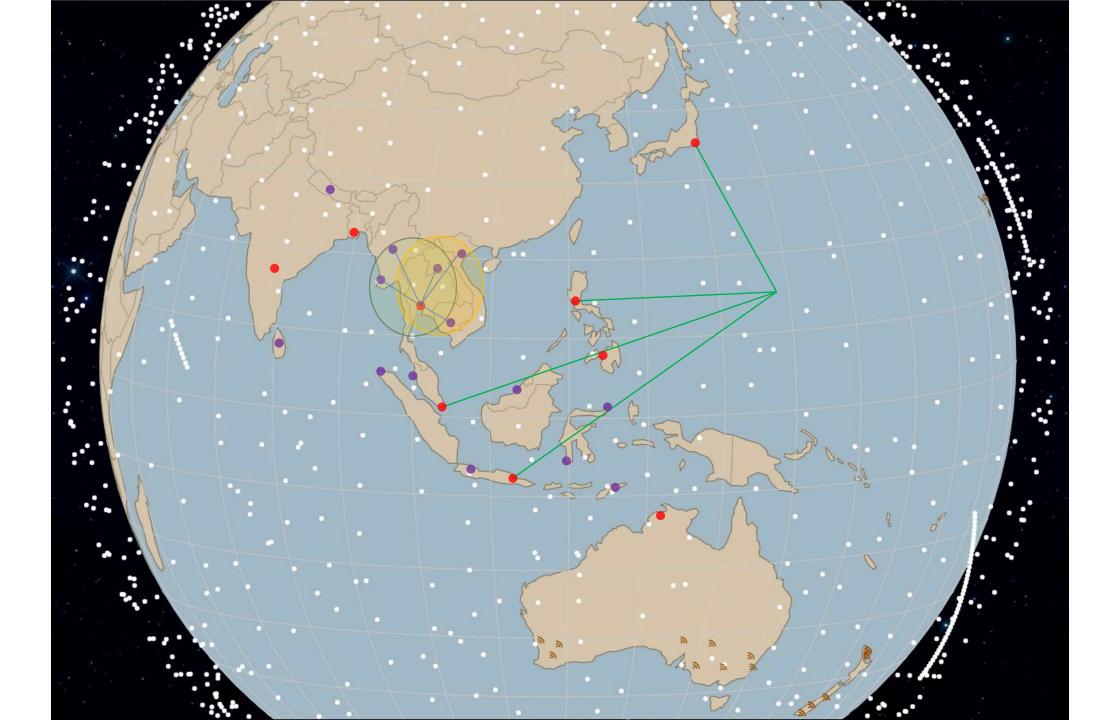
## SOI-Asia/AI3

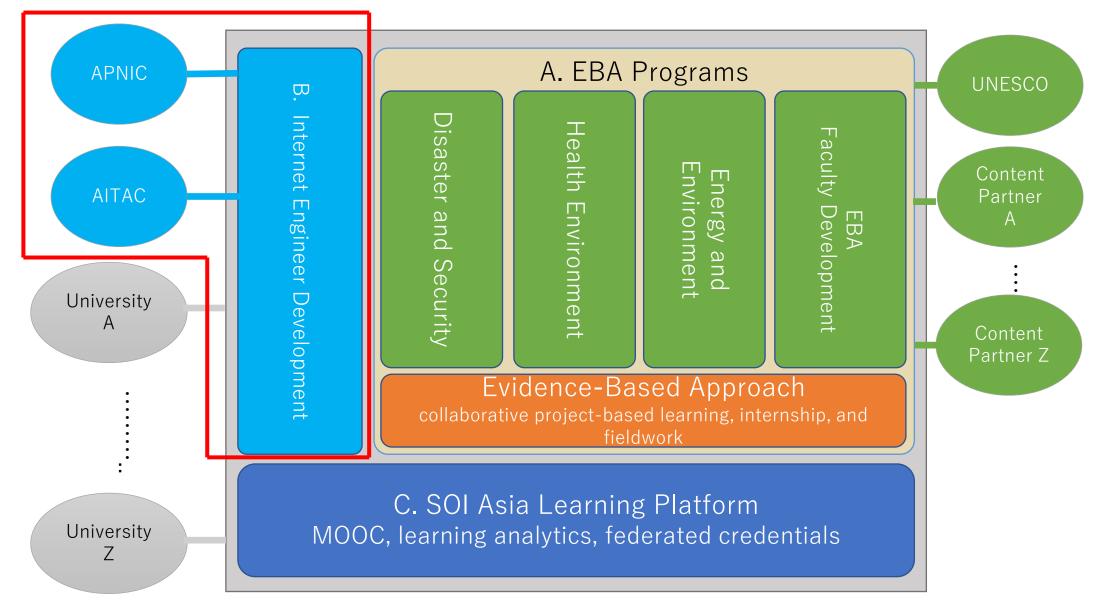
Achmad Husni Thamrin Noriatsu Kudo Keio University WIDE Project, AI3/SOI-Asia

### SARENA-PAC

- Research: Developing LEO/HAPS networks, overlay networks, sensor networks
- Emergency Developing emergency response network using LEO/HAPS
- Inclusion
   Using satellite links to provide additional links
   to National University of Timor Leste + TLREN



### SOI Asia Capacity Building Framework



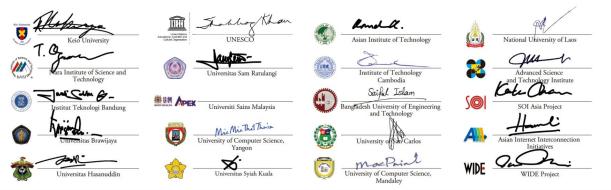
### Human Resource Development in SOI-Asia/Al<sup>3</sup>

- Training programs for operators since 2002
  - Operators Workshop and operators e-workshop
  - Internship program

• At Keio and company in Japan REN Internet engineer training specialized for the satellite internet testbed.

- In 2016, Bandung meeting
  - Agreed on activities to promote REN
- In 2019, Tokyo meeting
  - Agreed on human resource development.
- In 2021(Now)
  - New training program for REN
    - ARENA-PAC / SARENA-PAC

#### AI<sup>3</sup> 20<sup>th</sup> SOI Asia 15<sup>th</sup> ANN 1 CERSARIES **BANDUNG DECLARATION 2016** We recognize the significance of Research and Education Networks (RENs) as an infrastructure for universities and research institutes in Asia. We urge all stakeholders to join us to foster RENs and their interconnections for knowledge and wisdom for the future. Bandung, September 5th, 2016



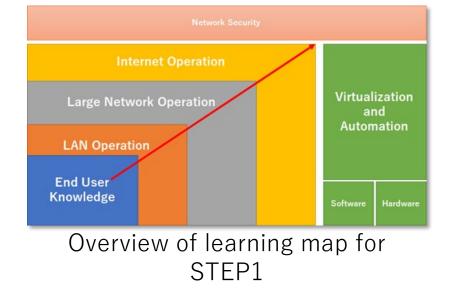
Asia Pacific Internet Engineer program Capacity

Building

- Main Target: Asia Pacific University students
- Develop curriculum and provide technical training for the Internet engineers involved in ARENA-PAC/SARENA-PAC and elsewhere.
- This will include <u>self-paced online classes</u>, <u>virtual</u> <u>labs for individuals</u> and <u>groupwork</u> that allow participants to hone their teamworking skills in an operational environment while using actual equipment.
- The initiative will collaborate with SOI-Asia and Al<sup>3</sup> partners, the APNIC Academy, AITAC, Interop shownet and other Internet community members in developing the training programs.
  - AITAC(Advanced IT Architect Human Resource Development Council)

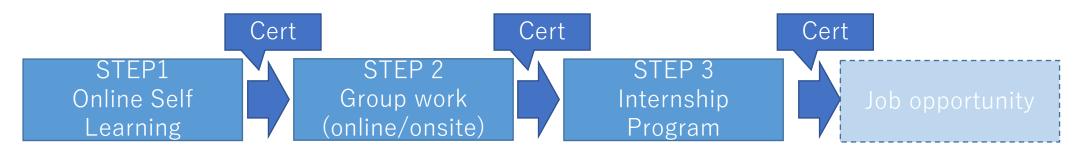
### Asia Pacific Internet Engineer Program

- Develop next generation network engineers for AP area
  - REN operation in AP
  - To participate technology standardization for the Internet
- Learning map for the program
  - Covers L1-L7, virtualization and automation, security, operation technology
  - Start learning from small network



### Learning model for the APie program

- STEP1: Online self-learning @APNIC Academy
  - Video archive and Virtual lab
    - Course provided by APNIC academy and AITAC
- STEP2
  - Build enterprise network using real/cloud resources
  - Group based activity guided by tutors
- STEP3
  - Internship @ event or company
    - NOC team at the conference network( design, build, closing in weeks)

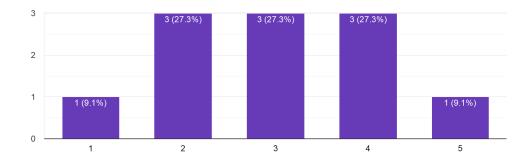


# Capacity building Survey with SOI-Asia partner universities

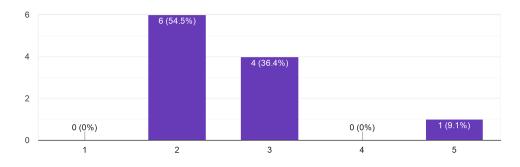
- At SOI-Asia/AI3 meeting in August 2021
  - 11 answers from 5 countries (10 organizations)
- Give us your feedback
  - https://forms.gle/HG3FJmNCMTSJdUmv6
  - Deadline(2021/09/20)

# Current situation : Internet Engineers in university, REN and country

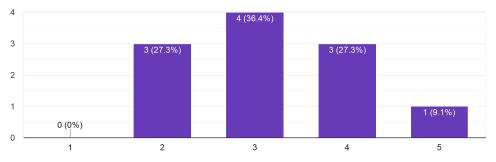
Do you have a good number of skilled Internet Engineers for organization's needs? 11 件の回答



Do you have a good number of skilled Internet Engineers for your country's REN needs? 11 件の回答



Do you have a good number of skilled Internet Engineers for the industry in your country? 11 件の回答



If there are not enough number of skilled Internet Engineers in your country, why?

- Lack of quality in education
- Not enough peole are being trained to manage these kind of systems.
- Most of the students prefer to study web/mobile application development.
- Most of the Internet training is for small networks
- <u>Quality</u> of knowledge, skillsets and mindset may not be up to the mark. India has a large population for any job.
- lack of education and dissemination
- the <u>interests from students are decreasing</u>, learning networking usually requires a lot of complex set of software and hardware

## Survey results(cont.)

### What kind of training programs does your organization need?

- <u>Network virtualization</u> and <u>container</u> <u>technology</u>
- Private Cloud, Identity Federation
- SDN, NFV, Container technology
- Container Technology, Network redundancy and virtualization
- All about network engineering

Basic skill courses are already available in native language in each countries.

Area of skillset is larger than traditional network engineers.

## What would motivate students interested in studying APie?(other than certificate)

- <u>Job</u> opportunity
- <u>Credits</u> in university and free/discount voucher for professional certification exam
- Chance to participate in various internships
- Long internship program recognized by the Ministry of Education in Indonesia.
- Oversea training session
- Credit earning
- Publish online badges for those who earned the certificate as an acknowledgement

### Collaboration with us

- Feel free to contact me
  - <u>kudo@wide.ad.jp</u>
- Looking for opportunities to send student
  - Conference network NOC team
  - Internship at you organization/company