

CIVIL ENGINEERING

TUNING ASIA – SOUTH EAST (TA-SE)

2 – 6th May 2017

Bilbao, Spain



Electron 2

General Competencies

1) Ability to communicate effectively

2) Ability to work in a team

3) Ability to solve problems

4) Ability to learn from experience

5) Ability to adapt to change

6) Ability to manage time

7) Ability to work under pressure

8) Ability to work independently

9) Ability to work in a multicultural environment

10) Ability to work in a dynamic environment

11) Ability to work in a team

12) Ability to work in a multicultural environment

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14) Ability to work in a team

15) Ability to work in a multicultural environment

16) Ability to work in a dynamic environment

17) Ability to work in a team

18) Ability to work in a multicultural environment

Specific Competencies

1) Ability to analyze and synthesize information

2) Ability to design and develop systems

3) Ability to evaluate and improve systems

4) Ability to manage and coordinate projects

5) Ability to communicate effectively

6) Ability to work in a team

7) Ability to work in a multicultural environment

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18) Ability to work in a team

1) Deep knowledge in science & mathematics (electrical)

2) Ability to interpret complex designs

3) Ability to design and develop systems

4) Ability to evaluate and improve systems

5) Ability to manage and coordinate projects

6) Ability to communicate effectively

7) Ability to work in a team

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Training

Members

	Name	University	Country
1	Kimtho PO	Institute of Technology of Cambodia	Cambodia
2	Tri Joko WAHYU#	Institut Teknologi Sepuluh Nopember	Indonesia
3	Norhazilan NOOR	Universiti Teknologi Malaysia	Malaysia
4	Ahmad Farhan SADULLAH*	Universiti Sains Malaysia	Malaysia
5	Neil ESCALONA	University of San Augustin	Philippines
6	Karl B VERGEL	University of the Philippines	Philippines
7	Aphinat ASHAKUL	King Mongkut's University of Technology Thonburi	Thailand
8	Withit PANSUK	Chulalongkorn University	Thailand
9	Dondej TUNKTAKANPOUNG	Naresuan University	Thailand
10	Danh Thao NGUYEN	Ho Chi Minh University of Technology	Vietnam
11	Quynh Hoa TA	National University of Civil Engineering	Vietnam

* Coordinator

Co-coordinator

Experts/Observers

	Name	University	Country
1	Emilien AZEMA	Universite de Montpellier	France
2	Nantana GAJASENI	ASEAN University Network	Thailand
3	Diego LO PRESTI	Universita di Pisa	Italy
4	Shubhashree PAL	King Mongkut's University of Technology Thonburi	Thailand
5	Alfredo SOEIRO	Universidade do Porto	Portugal

COMMON BACKGROUND

- Almost all civil engineering programmes represented in the group has started the outcome based education and are familiar with Programme Outcomes
- These civil engineering programmes are largely governed by at least one or several engineering education quality/qualification system(s)

Agreed Consolidated Generic Competencies

1. Ability to work collaboratively and effectively in diverse contexts
2. Ability to use information and communication technology purposefully and responsibly
3. Ability to uphold professional, moral and ethical values
4. Ability to demonstrate responsibility and accountability towards the society and environment
5. Ability to communicate clearly and effectively
6. Ability to think critically, reflectively and innovatively
7. Ability to understand, value, and respect diversity and multiculturalism
8. Ability to carry out lifelong learning and continuous professional development
9. Demonstrate problem solving abilities
10. Ability to initiate, plan, organise, implement and evaluate course of actions
11. Ability to conduct research
12. Ability to demonstrate leadership attributes
13. Ability to apply knowledge into practice

SPECIFIC COMPETENCIES

1. Ability to demonstrate entrepreneurial attributes (creative, risk taking, resilient and innovative) – transferred from the original generic competency
2. Ability to show strong knowledge in science and mathematics (including statistics)
3. Ability to interpret engineering drawings
4. Ability to create algorithm to solve engineering problems
5. Ability to understand principles of material science
6. Ability to carry out civil engineering analysis
7. Ability to interpret engineering data from testing
8. Ability to utilise relevant design codes and regulations
9. Ability to design civil engineering elements (e.g : structural, geotechnical, water, transportation and highway, environmental engineering, and others)
10. Ability to monitor the progress and quality of civil engineering works
11. Ability to identify the appropriate construction technology and methods
12. Ability to uphold safety
13. Ability to evaluate the impact of engineering decisions
14. Ability to integrate all civil engineering knowledge into a workable system

CONSULTATION PROCESS

- Stakeholders
 - Primary (compulsory)
 - Students
 - Alumni (former students)
 - Academic staff
 - Employer from the public sector
 - Employer from the private sector
 - Secondary (optional)
 - Professional bodies
 - Parents
 - Sponsors/financiers
 - Community representatives

Methodology

- We need to understand the survey tool to be used by Tuning Academy for this purpose
- We have agreed to empower team members to decide on
 - The number of samples per each category
 - The extent of additional civil engineering program owners to be included in their respective countries (coordination will be required when there are more than one university per country)
 - The need for and the actual translation work on the questionnaire questions will be carried out by the respective group members

TIME LINE

