

REPORT ON the Training on Outcome-based Engineering Education: Linking PEO/PO/CO and Assessment Methods

The training on Outcome-based Engineering Education: Linking PEO/PO/CO and Assessment Methods was held on **November 21st, 2020** virtually. The training was hosted by the NPU-FEIAP “Belt and Road” Engineering Education Training Centre (NFTC) and supported by CAST, China Association of Science and Technology. The speaker is Academician Professor. Ir. Dr. Chuah Hean Teik, Chairman of FEIAP Standing Committee on Engineering Education. The training was designed as a continuation to the training conducted from September 20th to 22nd. A total of 258 participants from China, Myanmar, Malaysia, Singapore, the Philippines and Cambodia, etc., attended the training.

Objectives of the training:

The objectives of the training are divided into two major sections, namely:

- 1) How to link PEO/PO/CO with detailed examples given
- 2) Assessment of PEO/PO/CO with detailed examples for a degree programme

The speaker will show how to link programme education objectives, programme outcomes and course outcomes with an actual example of a degree programme. Then assessment of engineering courses, and Industrial Training course will be explained. Assessment tools for PEO/PO/CO will be explained with actual examples.

Training Part I:

In this part, the speaker, Academician Professor. Ir. Dr. Chuah Hean Teik, explained the STL, student learning time and some complex problems in the teaching and assessment process. Then, Professor Chuah then used the examples from Universiti Tunku Abdul Rahman, where he was president, to explain what PEO, program education objectives, PO, program outcomes, and CO, course outcome, are and the major differences and key points to be noted were also stressed. How to link the three kinds of outcomes were explained using real examples from UTAR.

Training Part II:

In this part, the speaker gave some important tips for assessors. He went into details about the right procedures and wrong actions to be avoided in the assessment process. The speaker then tapped on how to write reports before he concluded the training session by pointing out that there is no perfect system but we need to be professional and ethical, and always improving while learning. The speaker then answered questions about the details to conduct surveys and how to get access to and use eOBE software. It was also expressed by the audience that they would like to learn more about benchmarking in future training sessions.

Attachments:

Visions and Objectives

NPU-FEIAP B&R Engineering Education Training Centre (NFTC)

Visions

1. To have a unified and inclusive Engineering Education Standards which promotes mutual recognition of the Engineering Education Programs (Engineer, Engineering Technologist and Technician programs) among Economies in the B&R Initiative region and FEIAP member economies.
2. To facilitate and to promote mobility of the Engineers, Engineering Technologists and Technicians among the economies in B&R Initiative region and FEIAP member economies.
3. To provide continuous professional development to increase the number of competent Engineers, Engineering Technologists and Technicians who will help the economies to develop into developed nations
4. To promote understanding of civilization in B&R Initiative region and FEIAP member economies via cultivation of cultural intelligence in engineering education.
5. To promote students exchange programs among universities in the B&R Initiative region and FEIAP member economies.

Objectives

1. The NFTC is set up in NPU, Xian, China.
2. To conduct Engineering Education Accreditation Training (EEAT) based on established FEIAP Engineering Education Guidelines, FIEAP Engineering Technologist and Technician Education Guidelines
3. The Engineering Education Accreditation Training (EEAT) will cover training of Assessors, Academics and Accreditation Agencies of the economies in the B&R Initiative region and FEIAP member economies.
4. To facilitate and promote of mutual recognition of Engineering Education Programs among the Universities in the B&R Initiative region and FEIAP member economies, which is keystone for the mobility of Engineering Personnel (e.g. Engineers, Engineering Technologists and Engineering Technicians).

5. To facilitate and promote students exchange program among the Universities in the B&R Initiative region and FEIAP member economies.
6. To facilitate and promote the mobility of engineering personnel (e.g. Engineer, Engineering Technologist and Technician) who has fulfilled the FEIAP Engineering Education Standards in the economies of the B&R Initiative region and FEIAP member economies.
7. To conduct Professional Development courses for Infrastructure Development and Maintenance for the Engineers, Engineering Technologists and Technicians.
8. To facilitate and promote the networking of the engineering personnel (e.g. Engineer, Engineering Technologist and Technician and Academics) to share knowledge, experiences, business opportunities and friendship for closer ties among the engineering fraternity in the economies of the B&R Initiative region and FEIAP member economies.
9. To improve and keep up to development of the world on the Engineering Education and Training to benefit the economies of the B&R Initiative region and FEIAP member economies.
10. To be a platform for exchange of academics and engineering students in B&R and FEIAP member economies.