

Chapter 3: Roles of Professional Organization Regulation and Professional Development

Engineering Practices in Nepal

- The First Engineering structure built in Nepal was an iron bridge over river Bagmati in 1850. The first public water supply system was laid in Kathmandu valley during 1888-95. Kul Ratna Tuladhar was the first chief engineer of Nepal's Public Works Department. The highlight of his term was the construction of Tribhuvan Highway which opened in 1956. This is Nepal's first highway and links the capital Kathmandu with the Indian border to the south. Shanti Malla is the first lady engineer of Nepal.
- In 1959 Nepal Engineering Institute, with the assistance of the government of India, started offering civil overseer courses leading to Diploma in Civil Engineering. In 1972, the Nepal Engineering Institute at Pulchowk and the Technical Training Institute at Thapathali were brought together under the Tribhuvan University to constitute the Institute of Engineering. The Nepal Engineering Institute and the Technical Training Institute were renamed as Pulchowk Campus and Thapathali Campus respectively.

Engineering Practices in Nepal

- With the assistance of UNDP/ILO, technician programs in Electrical, Electronics were started at Pulchowk Campus. The Architecture Technician program was started by the IOE in its own effort after few years. Bachelor's Degree level course in Civil Engineering was started with the assistance of the World Bank and UK. Similarly with the assistance of the World Bank, the Swiss Government and the Canadian Government, Bachelor degree courses in the Electronics, Electrical, Mechanical engineering, Computer Engineering and Architecture were also started in the Pulchowk Campus
- In 1996, with support from the Norwegian Government, Pulchowk Campus started MSc Courses in Urban Planning, Structural Engineering, Environmental Engineering and Water Resources Engineering. Later M. Sc. Courses in Renewable energy and Geothermal Engineering, Information and Communication and Power systems Engineering effective from December 2001 at Pulchowk Campus

Engineering Practices in Nepal

- Thapathali Campus offers Bachelor's degree programs in Civil Engineering, Industrial Engineering, Mechanical Engineering and Electronics and Communication Engineering.
- Western Region Campus in Pokhara started from 1987, with the assistance from the World Bank and UNDP/ILO. At initial period it offers Diploma level courses in Civil, Electrical, Electronics, Automobile and Mechanical Engineering. It started a Bachelor's Degree program in Civil and Mechanical Engineering in 1999.
- Eastern Region Campus situated in Dharan, were established and started its service from 1984. It was built with the financial assistance from Asian Development Bank and the technical assistance from the UK. It offers Bachelor's Degree Program in Civil, Electrical, Mechanical and Agricultural Engineering.
- Lots of Engineering Campus recently which are affiliated to Tribhuwan University, Pokhara University, Purbanchal University and so on.

Nepal Engineering Council (NEC)

- Nepal Engineering Council (NEC): an autonomous statutory body to oversee practice of professional engineering services in Nepal; established under Nepal Engineering Council Act, 1999.
- The office holders of NEC are nominated for 4 years; some executive members get elected for 4 years; there is a provision of some NEA executive members to be NEC executive members for the duration of their tenure at NEA.
- All engineering graduates must register at NEC before they legally practice their profession in Nepal. All engineering colleges must get approval from NEC before they enroll students in their engineering program
- The Nepal Engineering Council (NEC) tries to regulate engineering profession by developing policies, plans and programs for the smooth functioning of the engineering profession and to execute them.

Nepal Engineering Council: Objectives

- To prepare policies, plans and programs for the smooth functioning of the engineering profession and to execute them
- To set norms and standards for engineering education in Nepal
- To grant permission and approval to carry out engineering education to those engineering colleges and institutions that meet the required norms and standards and to honor their degrees and certificates
- To monitor and inspect the quality of engineering education provided by the engineering colleges and institutions
- To fix the qualification necessary in order to practice engineering profession and to register their name in the Council
- To remove their name from the registration of the engineering council if found to violate the code of ethics.
- Licensing for individual engineers is provided by NEC, in the form of registration. As per clause 11 of NEC Act, “no person shall practice the engineering profession without getting his/her name registered in the Council”

Nepal Engineering Council: Objectives

- Two of the objectives of NEC related to the licensing of engineering professionals are:
 - To fix the qualification necessary in order to practice engineering profession and to register their name in the Council
 - To remove their name from the registration of the engineering council if found to violate the code of ethics.

Nepal Engineers' Association (NEA):

- Nepal Engineers' Association (NEA): a voluntary organization of engineers of Nepal, registered as an NGO in 1962.
- The executives are elected through voting of all the members of NEA, for two years.

Nepal Engineers' Association : Objectives

- To promote development of the engineering science and technology in Nepal.
- To promote fellowship goodwill and cooperation assistance among the Nepalese engineers and safeguard their rights and interests.
- By utilizing, to the highest extent possible, the participation of the national engineering manpower of the country in the national development activities of Nepal, make effort towards ending foreign dependency in this regard.
- To continuously enhance the highest professional ideals among the members and widen it.
- To develop relations, fellowship and goodwill with international engineering associations and institutions

NEC	NEA
Statutory body, established under NEC Act, in 1999	An NGO, established in 1962
Must register before practicing engineering profession	Registration/membership is voluntary
Executive body by election and nomination	executive body by election
Evaluates and approves establishment of academic institutes offering engineering programs	No such provision
Offers different categories of engineering profession: general, professional, foreign	No such provision
Monitors academic institutes offering engineering programs (every year for temporary approval and every other year for permanent approval), and cancels approval if found not up to standard	No such provision
The directives and code of conduct issued are mandatory	The directives and code of conduct issued are voluntary.

Thank You !!!