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## What are the Technical Qualification of Korean Engineers

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### 韓國技術士資格制度

지난 5월 6일~9일까지 東南亞太平洋地域工學團體聯合會(FEISEAP) 제 4次總會가 “技術用役 및 專門職訓練”主題下에 韓國科學技術團體總聯合會主催로 開催時 許埴副會長이 發表한 韓國技術士資格制度에 對한 것임.

On the occasion of making good-will visit to the Southeast Asian countries with our eleven professional engineers in December 1981, we paid a visit to Indonesian Institute of Engineers. During our visit they expressed so much interest in the Korean Professional Engineers qualification assessment system that we sent them some relevant information upon our return.

It is my honor to have an opportunity to introduce Korean Professional Engineers Qualification System and the National Technical Qualification System at this workshop.

#### 1. Principle

With enactment of the Technical Qualification Act in 1973, the government standardized the criteria and the nomenclature of the technical qualification for the purpose of training and securing engineers and craftsmen through a favorable treatment of qualified persons and promoting technical trainings directly related to the production. In correlation with science, technology and craftsmanship, a scientist with doctorate degree, engineers with professional engineering and craftsman with master craftsman qualifications are equally treated in social status.

#### 2. Operation

In order to monitor execution of technical qualification examination and registration of persons who acquired the qualification, Korea Vocational Training and Management Agency was established under the control of Ministry of Labor Affairs, while Ministry of Science and Technology was designated to control and enact the relevant laws and ordinances, and government agencies concerned was responsible for utilization of and control over those persons who acquired the qualification.

#### 3. Structure of Qualification

There are three grades in grouping engineers such as Professional Engineers, Class I Engineers and Class II Engineers. In the classification of craftsman grouping, there are also four grades such as Master Craftsman, Class I Craftsman, Class II Craftsman and Assistant Craftsman as shown below.

Structure of Engineers Group

Qualification Criteria	Classes	Test Method
Class I Engineer+7 years Class II Engineer+9 years	Professional Engineer	Assessment on Experience Written Test, Oral Test
4 year college graduate Junior Tech. College Graduate+2 years Class II Engineer+2 years	Class I Engineer	Written Test (Skill Test in some case)
Junior Tech. College Graduate Class I Craftsman	Class II Engineer	Written Test (Skill Test in some case)

Structure of Craftman Group

Qualification Criteria	Classes	Test Methods
Class I Craftsman+7 year	Master Craftsman	Assessment on Experience
Class II Craftsman+3 years Junior Tech. College Graduate	Industrial Master College (2 years)	Written Test Skill Test
No requirement for Education on Experiences	Class I Craftsman Class II Craftsman Assistant Craftsman	Written Test Skill Test Skill Test

4. Qualification Criteria

Professional Engineers

A man of a high degree of professional knowledge and practical experience in the respective technical field who is capable of doing planning, research, design, analysis, experimentation, or who is qualified to do guidance or supervision of technology.

Class I Engineers

A man of basic engineering knowledge who is capable of applying the knowledge in the respective engineering field, he shall have mastered basic engineering knowledge in a four year engineering college.

Class II Engineers

A man of basic engineering knowledge and practical application capabilities.

Master Craftsman

A man of highest skilled techniques in the respective field who is capable of doing task management and supervision of skilled matters.

- 1) A man with the qualification of Class I Craftsman plus industrial master education plus actual experience of 7 years or more (technical training period shall be added)

#### Class I Craftsman

A man of highly skilled techniques in the respective field who is capable of performing major technical tasks with respect to applied production, manufacturing, operation, rehabilitation, maintenance, extraction and inspection.

- 1) A man with Class II Craftsman's qualification plus actual experience of three years or more.
- 2) A junior technical college graduate or graduate candidate (or a man with equivalent educational background)
- 3) A prize winner in the International Youth Skill Olympics
- 4) A man who has completed or expected to complete technical training course designated by the Prime Minister's Order. The courses shall offer the qualification of Class I Craftsman in the respective technical qualification categories.

#### Class II Craftsman

Performing technical tasks related production, manufacturing operation, rehabilitation, maintenance, extraction and inspection. There is no limitation on the qualification of the Assistant Craftsman.

#### Assistant Craftsman

With lower class skilled techniques in the respective technical field, he shall be able to help higher class craftsman or perform various types of technical work under their supervision. There is no limitation on the qualification of the Assistant Craftsman.

#### 5. Conclusion

Legal support such as Technical Qualification Act of 1973 has induced a considerable contribution to the technical development in Korea and such made possible for the four consecutive years of winning of the International Youth Skill Olympics.

The number of registered professional engineers are totaled over 4,000 currently and two third of them are either working for the government or teaching at the universities, while one third are actively engaged in their respective specialized consulting engineering fields both at home and abroad.

In order to keep abreast of rapidly changing technical environment and enhance their quality, professional engineers are required to take one-week training courses every five years starting with this year.

One of major privileges for the professional engineers in Korea, which is unfound in the Western countries, is that only registered professional engineers are authorized to preactice consulting engineering

In order to promote mutual benefits, cooperation and friendly relationship among countries, the Korean government adopted comity as an open-door policy in that the Korean government may issue a certification of professional engineer with oral test only (Korean language is not mandatory) to any person who holds a valid license issued to him by any country when the applicant's qualifications meet the requirements of the chapter and rules established by the Korean government.

Thank you very much.