



PAKISTAN ENGINEERING COUNCIL (PEC)

(Established under the Act of Parliament 1976)

OVERVIEW OF PEC

Pakistan Engineering Council (PEC) was constituted through an Act of Parliament in 1976 as statutory / autonomous body, to regulate the Engineering Profession and engineering education in the country. Presently, PEC maintains its secretariat at Islamabad with branch offices at all the provincial capitals including Gilgit Baltistan and liaison offices at Sukkur, Multan, Hyderabad and Muzaffarabad.



Over the period, PEC has transformed itself from a regulatory body to an internationally recognized professional engineering body, with the vision that Engineering profession shall function as a key driving force for rapid and sustainable growth in the country. The mission of PEC is to set and maintain realistic and internationally relevant standards of professional competence and ethics for engineers and engineering institutions. The major functions/objectives of the Council are:

- Maintenance of a Register of persons qualified to work as registered engineers, professional engineers, consulting engineers, constructors and operators.
- Accreditation of engineering qualifications for the purpose of registration of registered engineers, professional engineers, consulting engineers.
- Promotion of engineering education and review of course of studies in consultation with the Universities.
- Ensuring and managing of continued professional development.
- Establishing standards for engineering contracts, cost and services.
- Assistance to the Federal Government as a Think Tank.
- Providing forum for arbitrations, pertaining to dispute in construction and consultancy contracts.
- Facilitating engineering sector industries.
- To recommend the bills for legislation pertaining to engineering profession, engineering education and engineering works.
- Promotion of engineering profession in totality.

MAJOR ACHIEVEMENTS

PEC is deeply motivated for the development and progression of engineering profession and quality of engineering education leading towards international recognition and cross border opportunities. The landmark achievements made so far are as follows:

1- Pakistan Elected as FEIAP Member

Pakistan has been declared as one of the member countries of the **Federation of Engineering Institutions of Asia and the Pacific (FEIAP)** during its 19th General Assembly meeting held in Singapore on 5th October, 2011. Pakistan is the 22nd member to join the FEIAP and will be

represented by the Pakistan Engineering Council (PEC). After joining the FEIAP, Pakistan will be facilitated to exchange information and ideas related to engineering education amongst the member organizations and to work for the advancement of engineering profession through various activities.

While thanking President FEIAP and its Executive Committee, Chairman PEC, Engr Syed Abdul Qadir Shah assured PEC's active role in various Technical Committees and invited all members to hold General Assembly meeting in Islamabad after India in 2014.



2- **PEC becomes Provisional Signatory of Washington Accord (WA)**

Pakistan Engineering Council (PEC) has been accepted as a provisional signatory of the prestigious **Washington Accord (WA)** of International Engineering Alliance (IEA) on June 25, 2010 which would provide substantial equivalence of engineering qualification and facilitate mobility of engineering graduates and professionals of Pakistan at international levels. With this entry, PEC's accreditation



system/process will get an international recognition. The graduates from PEC accredited programmes will be facilitated / accepted for education and employment purposes in member countries on completion of membership process.

3- **PEC's Provisional Membership of International Professional Engineers (IPE)**

Pakistan Engineering Council (PEC) has also been accepted as a provisional member of the prestigious **International Professional Engineers (IPE)** agreement, previously known as Engineers Mobility Forum (EMF), of International Engineering Alliance (IEA) on June 17, 2011, which would facilitate cross-border mobility of engineering professionals at international levels. This will enable framework for the establishment of International standards of competence for professional engineers. PEC is making efforts to get full membership of the EMF in about two years after implementation of assessment system in line with the international criteria and procedures.

4- **Pakistan Engineering Council to host next NABEEA Council meeting**

Pakistan Engineering Council (PEC) has become the member of **Network of Accreditation Bodies for Engineering Education in Asia (NABEEA)**, a network of respective accreditation bodies in Asia. The network (NABEEA) was established at the first General Assembly, held on August 8, 2007 at Penang, Malaysia. Pakistan Engineering Council (PEC) got full membership status of NABEEA in 2008. The goal of NABEEA is to exchange information of the engineering education, similarities and dissimilarities, and to seek for the harmonization of the accreditation systems.

It will be a privilege for Pakistan to host the next General Assembly and Council meeting of NABEEA tentatively scheduled at Islamabad, Pakistan during the January-February, 2013 along with training/workshop pertaining to Outcome Based Accreditation (OBA) based Accreditation System for mutual benefits. It is hoped that this exclusive event may provide an excellent mentoring opportunity among NABEEA economies, especially those who are provisional signatories of Washington Accord i.e. Pakistan, India and Bangladesh to learn and prepare for the full signatory status of Washington Accord (WA). Further, in support of one of the main objectives of NABEEA, this event will be first of its kind, in any of the member countries to harmonize the accreditation systems of leading member countries and to bring it to internationally accepted and practiced systems. Most of the member organizations have shown their willingness to participate in NABEEA-2013 Islamabad meeting/workshop.

Following are the member/associate member of NABEEA:

Member Countries	Associate Members
BANGLADESH <u>Board Of Accreditation for Engineering and Technical Education</u>	CTAEMC <u>Chinese Taipei APEC Engineer Monitoring Committee</u>
JAPAN* <u>Japan Accreditation Board for Engineering Education</u>	IEM <u>The Institution of Engineers, Malaysia</u>
KOREA * <u>Accreditation Board for Engineering Education of Korea</u>	IPEJ <u>The Institution of Professional Engineers, Japan</u>
MALAYSIA* <u>Engineering Accreditation Council</u>	KPEA <u>Korean Professional Engineer Association</u>
PAKISTAN <u>Pakistan Engineering Council</u>	mSET <u>Malaysian Society for Engineering & Technology</u>
PHILIPPINE <u>Philippine Technological Council</u>	PATE <u>Philippine Association for Technological Education</u>
SINGAPORE* <u>The institution of Engineers, Singapore</u>	
THAILAND <u>Council of Engineers, Thailand</u>	
TAIWAN* <u>Institute of Engineering Education Taiwan</u>	

*NABEEA Council Members.

5- Unified Service Structure for Engineers

The efforts made by the present PEC management for the welfare of engineering professionals have made significant achievements. The then Prime Minister of Pakistan Syed Yousaf Raza Gillani approved the following long awaited demands of engineering community upon the request of Chairman PEC, while inaugurating the ceremony on 29th May 2012, pertaining to the On-Grid Solar System installed at PEC. The approved demands include:



- Adoption of Service Structure and time scale promotion of Engineers.
- Appointment of Engineers on the technical posts and placement of qualified Engineers as Head of engineering departments and institutions.
- Establishment of an Engineering Academy for the professional development and capacity building of Engineers.

PEC has started work on formulation of Unified Service Structure for Engineers in collaboration with Ministry of Science and Technology and Establishment Division of Government of Pakistan.

6- Development of Standard Bidding/Contract Documents

In order to bring transparency, efficiency and timeliness in the implementation of public and private sector projects, PEC developed unified Bidding and Contracts Documents for procurement of engineering goods and services. These documents were approved by the ECNEC and also adopted by Public Procurement Regulatory Authority (PPRA). PEC has further developed nineteen documents to facilitate procurement of goods and services. These documents are available at websites of PEC (www.pec.org.pk), PPRA and Pakistan Institute of Costs and Contracts (PICC) (www.picc.org.pk).

7- PEC Initiatives for Energy Conservation and Renewable Energy

• Building Energy Code of Pakistan

Sequential to the Building Code of Pakistan- Seismic Provision 2007, the ENERCON and PEC constituted a Task Force for finalization of Building Energy Code of Pakistan (BECP) taking relevant stakeholder organizations on board. The main scope of the Task Force was to finalize the BECP in consideration of experts' review, devising framework for implementation, developing user and compliance manuals, strengthening of testing facilities and capacity building of the users / designers. The Code has been finalized and is in process of SRO notification for mandatory implementation.



It is hoped that a culture of social responsibility especially in the field of civil construction will be created as it is crucial for the cause of climate change and energy efficiency. Other activities in pipeline include development of Building Code on Fire Safety Provisions for safety housing and infrastructure.

• First On-Grid Solar System for PEC Building

Under the scenario of energy crises in the country and potential of renewable energy, PEC has taken several initiatives for energy conservation, efficiency and promotion of renewable energy. Under the Clean Energy Initiative, an on-grid solar power generation system of 178 KW capacity has been installed under Grant-Aid from the Government of Japan one at Pakistan Engineering Council (PEC) and another at Planning Commission. The project has been completed which was inaugurated by the then Prime Minister of Pakistan on 29th May, 2012.



This project is the first of its kind in the country, as the excess electricity is being delivered to the national grid under Feed-In-Tariff regime. This project would set precedence as a role model for defining procedures and strategy at the national level for on-grid solar power generation. It will prove an effective measure to overcome the energy shortage, emphasizing on solar power, for which there is big scope.



• Alternative Energy Resource Portal

In order to address energy crisis in the country, the Alternative Energy options are being placed on top priority by the Government of Pakistan. Realizing the information needs of individuals and organizations about obtaining alternative energy systems, PEC has launched an online portal www.energy.pec.org.pk. The portal contains brief profiles and contact information of alternative energy consultants, engineers, solution providers, manufacturers, system integrators, importers, exporters, CDM projects managers, certification and conservation organizations. Those who are interested in converting their home/buildings on alternative energy may visit www.energy.pec.org.pk where 153 vendors, suppliers, solution providers and manufacturers are already enlisted.

8- Digitization/Online Registration

Under the initiative of digitization and online facilitation, PEC has launched the issuance of digital Renewal Cards (RFID cards) to the Engineers. Further work on development of software for digitization, submission of online application for registration of engineers and constructors/ consulting firms has been completed and is in the final phase of deployment.



9- Accreditation of Engineering Education

The PEC Engineering Accreditation & Qualification Equivalence Committee (EA&QEC) has developed a comprehensive system of accreditation based on well recognized parameters and international practices for evaluation of engineering education programs. PEC has so far accredited 242 engineering programs from 92 institutions/ universities in the country.

S. No.	Description	Till June 2012
1	Accredited/ re-accredited engineering programs	242
2	Institutions/ Universities	92
3	Major Disciplines	29

The list of accredited programs and their institutions is available on PEC website under First Schedule (www.pec.org.pk) which is also circulated through newspapers regularly for general public awareness.

10- Registration of Engineers, Consultants and Constructors

In order to get national and international recognition of engineering qualification and as a bona-fide engineer to practice engineering profession, it is mandatory to obtain registration with Pakistan Engineering Council. The council is the official body having the sole right of providing such authentication in the country for practicing engineers. Such registration also provides brighter employment opportunities & service structures. PEC also registers consulting engineers, constructors and operators to regulate construction industry for quality and better practices. The statistics of registered engineers and firms upto June 2012 are as follows:

Registration Description	Number (Upto June 2012)
Registered Engineers (RE)	56,002
Professional Engineers (PE)	89,487
Total	145,489
Registered Consulting Engineers	1,532
Registered Constructors	57,885
Registered Operators	672

11- Professional Development of Engineers

For the professional growth and skill development of engineers in the country, PEC has formulated a framework of ***“Continuing Professional Development”*** under CPD Byelaws 2008 to enhance

competence and ability of engineers leading towards international competitiveness and job opportunities. In order to implement the CPD framework, PEC has devised three-pronged strategy as:

- PEC regularly organizes short courses, seminars, and trainings for engineers in different disciplines.
- Encouraging professional bodies all over country (like IEP, IEEP and universities) by registering these to impart CPD activities (list available on PEC website).
- On PEC recommendations, the government provided funds to establish professional development academies at various engineering universities.

In order to impart CPD activities to the large community of engineers, PEC has registered 78 professional organizations and universities as Professional Engineering Bodies (PEBs), the list is available on PEC website along with the CPD activities during the year.



12- Welfare Measures for Engineers

The newly elected Governing Body under the enterprising and dynamic leadership of Chairman, Engr Syed Abdul Qadir Shah, has taken several new initiatives. It is hoped that these will be of paramount interest to all Engineers irrespective of gender and age.

i. Health Insurance to the Registered Members

PEC has signed a memorandum of understanding with the United Insurance Company of Pakistan for providing health insurance to its members and their families. The coverage rates are as under:

• Coverage Scheme-1

a. Premium per member	Rs 4700/-
b. Health Insurance limit per member	Rs 250,000/-
c. Room rent	Rs 2800/-
d. Maternity (Annual Limit)	Rs 15,000/-(normal)
e. Maternity (Annual limit)	Rs 25,000/-(C-Section)
f. Personal Accident	Rs 100,000/-

• Coverage Scheme-2

g. Premium per member	Rs 8700/-
h. Health Insurance limit per member	Rs 400,000/-
i. Room rent	Rs 5,000/-
j. Maternity (Annual Limit)	Rs 20,000/-(normal)
k. Maternity (Annual limit)	Rs 40,000/-(C-Section)
l. Personal Accident	Rs 100,000/-

ii. Development of Engineer's Club and Accommodation Facilities in Major Cities

On the pattern of Gym Khaana and Islamabad Club, an Engineering Club will be constructed in the major cities. The Karachi chapter of PEC has taken a lead in this regard and negotiations are underway with the concerned authorities for procurement of appropriate land on lease. Once the land is obtained a state of the art club facility will be developed. To facilitate the stay of its members, PEC has planned to build room accommodation facilities in the form of messes, hostels, rest houses at commonly visited stations like the Federal and Provincial Capital as well as recreational places like Murree, Northern areas, Fort Manro etc. The members would be entitled to avail this facility at very nominal charges. In this context, the map of a multi storied building in Karachi has already been prepared and the construction work will start soon. Similarly the second floor of PEC Islamabad which had been rented out to a private concern is also being vacated so that the rooms can be utilized as a mess facility by the members.

iii. Introduction of “Best Final Year Project Award” in Engineering Universities:

A handsome cash award will be given to the “Best Final Year Project” on regular basis. This will give rise to a healthy competition amongst the young engineers and promotion of R&D culture in the country.

iv. Academy of Engineers to give Employment to Young Engineers

To provide temporary employment to the fresh Graduates and to prepare them for up coming tests and interviews for regular jobs in different engineering departments within or outside the country, Academy of Engineers will be set up in major cities. Fresh Graduates will be paid reasonable salaries and will also be trained which will help them in getting good jobs in their near future.

v. Opening of a TV Channel for Engineers

In order to highlight the achievements and issues relating to Engineers of Pakistan and to provide them yet another platform to express themselves an independent Engineers’ TV channel has been envisaged by the Chairman PEC.

vi. Interactive Website, Facebook, E-Newsletter

Under the special instructions of Chairman PEC, the website is being made interactive and Facebook account of PEC has been opened by the name of “Pakistan Engineering Council”. It is believed that these two steps will help in getting much needed feedback on the working of PEC and will also result in minimizing the communication gap between PEC and its members.

The data base of e-mails of member engineers is being updated and it will be ensured that all necessary information including electronic version of newsletter will be disseminated to each member through his e-mail address.

vii. Regular holding of Social Events for Members

PEC feels that one of the reasons for the pitiful condition of the Engineering community in Pakistan is due to lack of opportunities where they can meet regularly and exchange views. To overcome this shortcoming, the Governing Body has decided to promote a culture of socialization. Atleast one social gathering will take place in each major city in a year.