

**The 69<sup>th</sup> Annual Session** (2000-2004) was held at Pearl Continental Hotel, Lahore on 6<sup>th</sup> April 2004. **Engr. Ch. Muhammad Rashid Khan** was President of the Pakistan Engineering Congress and **Mr. Amer Sultan Cheema**, Minister for Irrigation, Government of the Punjab was the Chief Guest.

The following activities were undertaken during the Session:

Building and Fund Raising Committee worked hard throughout its tenure. It managed to rent out vacant portions of PEC Building at reasonably good rates to the following organization:-

1. Saudi Pak Commercial Bank
2. Saudi Pak Leasing Company
3. Sahar Advertisers (Pvt) Ltd.

This arrangement substantially augmented the cash resources of the Congress for taking-up construction of 4<sup>th</sup> storey in hand.

### **Membership Committee**

The Membership Committee strived hard to enroll new members in the Congress fold and together with the efforts of local centre Karachi was able to add 475 members bringing the total to 3685.

### **Follow-up Action Committee**

The Committee followed-up the recommendations on “Transportation Engineering and Related Issues in Pakistan”, finalized in the Symposium held on 21<sup>st</sup> January 2001, with Federal Minister of Railways and the Minister of Communication and Works Government of Punjab. However, no response was received from these departments despite repeated reminders.

### **Welfare of Engineers Committee**

The Committee remained very active in respect of Engineers welfare. The Committee initiated the award of eight (8) scholarships of Rs. 2,000/- per month each for 2 years for the Post Graduate & Ph.D. studies at the Engineering Universities.

### **Symposium Committee**

The Committee arranged the Annual Symposium on “Water Crisis in Pakistan and Solutions”. Key Note address was delivered by Engr. Rana Khursheed Anver. Ten (10) technical papers on “Multifarious Aspects of Water Crisis” were presented at the Symposium and discussed.

A Panel of experts formulated the following recommendations for implementation by the concerned departments, to combat the problem of water scarcity in the country.

- i) The groundwater management should be improved. There should be check and a balance for pumping of groundwater to prevent its misuse, mining and problem creation for the others. Mere pumping may not be allowed and the existing regulations of equal share of pumping and fixed minimum allowable distance between two tube wells in an area should be strictly followed. Government of Pakistan may revise these regulations with provision of severe punishments of imprisonment or fines in case of violation.
- ii) Obtaining maximum agricultural and aqua cultural benefits from the nutrients of wastewater. The use of sewage has been practiced in many parts of world for centuries especially for agriculture and aquaculture. Many times, the reuse has been performed without any consideration of adequate health safe guards and environmentally sound principles. The Ministries of Health and Agriculture should investigate the current sewage reuse practices and take steps for upgrading health and agronomical practices.

- iii) While projecting food requirements, the daily dietary allowance (2550 calories per head per day) and yearly per capita energy requirement (930,750) must be taken into consideration, which is on average basis.
- iv) The 50% of the average potential of food crops must be exploited to cater for human food requirements and curtail the supply of water and addition of more land, in addition to striving high yielding crop varieties.
- v) Urbanization of land must be viewed seriously in addition to directing the efforts towards bringing more area under plough and making efficient use of the available land and water resources.
- vi) Studies to confirm the necessity and quantum of water to check sea water intrusion should be carried out as early as possible.
- vii) It is strongly recommended that construction of a storage reservoir and Hydropower Project should be started immediately as 25-30 MAF water is flowing untapped into the sea.

### **Engineering News Journal**

7 Nos Quarterly issues of the Congress Journal were published and issued to the members free of cost.

### **Executive Council Meetings during the Session**

The Council met 27 times to discuss day-to-day matters and progress of the on-going assignments. The Council monitored the performance of the specific Committees and approved their recommendations.

### **Visit to Engineering Works**

Visit to the following engineering works was undertaken:

1. Visit to selected Engineering Works was undertaken from 23.1.2001 to 26.1.2001 immediately on the day after the last AGM:
  - M-I-Motorway
  - Wah Ordinance Factory
  - Western Cement Factory, Wah
  - Penur High Level Canal Project
  - Tarbela Dam Project
  - Ghazi Barotha Hydropower Project.
2. Visit to the Packages Limited, in May 2001.
3. Visit to Engineering Works at Murree and Islamabad, 29.7.2001 to 31.7.2001 included:
  - President's House
  - New Schemes of Water – Supply to Murree
  - Dhar Java Water Suply Scheme Tazila
  - Dhonga Gali Water Supply Maintenance Scheme
  - Widening/Improvement of Road from Guldana to Mohra Sharif
  - Treatment of Landside to RMK Road RD 1320
  - Rehabilitation of road for Patriata Bazar to Patriata
  - Government College Jecks Gali Murree
  - Information and Cultural Complex Rawalpindi

### Mid-Term Visit to Engineering Works in Karachi from 21.12.2001 to 24.12.2001

**On: 21.12.2001**

Karachi Shipyard & delegates participated in the inauguration of Local Centre Karachi of Pakistan Engineering Congress.

**On: 22.12.2001**

Sui Southern Gas Pipelines

**On: 23.12.2001**

National Textile, Karachi

National Tiles Factory – Karachi

**On: 24.12.2001**

Karachi Steel Mills

A Lecture on the topic of “Water Sustainability through Conservation”: was delivered by Mr. Naeem Qureshi Chief Executive, M/S Progressive Consulting Engineers, Inc. USA, on a visit to Pakistan.

A Lecture on the topic of “Quality Management and Quality Assurance”:

It was delivered by Engr. Mirza Muhammad Sadiq, General Manager (Retd) WAPDA.

### Annual Session Proceedings

26 Technical Papers were presented at the Annual Session. These were duly discussed, published and bound in an exquisite volume and circulated amongst members and donated to public and private libraries.

On the third day regular symposia on different problems besetting the national economy were held where technical papers were presented, discussed and the recommendations formulated by the Panel of Experts as a result, sent to the Government for consideration and implementation, if possible. On the 4<sup>th</sup> day, as a regular feature, AGM was held where elections for the office bearers of the ensuing Session were held and on conclusion a delegation of interested Members was taken to Engineering Works in progress. The Sessions ran into four days.

The President of the Pakistan Engineering Congress welcomed the Chief Guest on his behalf and on behalf of the Engineering Congress on the august event of its 69<sup>th</sup> Annual Session. “The Chief Guests at such occasions”, he said, “are almost new wherefore they have perforce to be introduced about this non-profitable N.G.O, formed in the year as far back as 1912, regarding its aims and objectives of promoting science & engineering profession & its activities and its voluntary achievements”. The President informed the Chief Guest, “one of its aims was of meeting together at the annual sessions where technical papers were presented by eminent engineers and discussed”. “These papers”, the President said, “had gone upto 919 numbers and were bound in Annual Proceedings. These were available in Congress archives and national libraries for reference of the posterity. The President added, “A well equipped Computer College had also been set-up in the Congress Head Office where training to various levels of professionals and sub-professionals was being imparted”. The President informed the Chief Guest, “Pakistan Engineering Congress was equipped with 2489 books relating to engineering and computer subjects. The President took pride in asserting that Pakistani Engineers were fully involved in Projects of all disciplines may be small and medium dams like Gomal & Mirani, exploration of oil and gas, renovation of

infrastructures of roads and highways, Rainee and Kachhi Canals Construction etc. He felt dismayed at delayed activities on building of Kala Bagh Dam although storage capacity of existing Tarbela and Mangla Dams was fast depleting due to silt deposits". The President was very much vociferous on drawing the attention of the Chief Guest about the fore shadows of famine like conditions of Ethiopia and Somalia. The President took-up the case of cheap hydropower generated energy to solve the energy crisis. Then the President proceeded to speak about the delayed promotion of engineers and recommended five tier services structure for them and reiterated the demand of posting Engineers as Heads of Engineering Departments instead of generalists.

The Chief Guest in his reply said that he was very much impressed by the aims and objectives of the Pakistan Engineering Congress viz-a-viz its achievements as spelt out by the President of Pakistan Engineering Congress. He said, "I am happy to know that the Congress is a non-profit non-governmental organization engaged in the promotion of science and technology to achieve self-reliance. I am also glad to note the major state-of-art contributions made by the Congress through its technical papers, particularly regarding the design of irrigation canals and barrages which have received international acclaim."

"In this fast developing age, however", he went on "our engineers and professionals still need to go a long way in order to keep pace with the developed countries by equipping themselves with the latest computer technology progressing at astronomical pace. It is a matter of great satisfaction that Pakistan Engineering Congress has already established its own modern Computer College where over 1000 young engineers and engineering students have already acquired know-how at various levels."

The Chief Guest continued to say, "I thank the President of Pakistan Engineering Congress for commenting on the policies, priorities and overall national objectives of Government. Despite manifold limitations and serious financial constraints, the primary goal of the Government is to improve the lot of the common man and raise his living standard. Thus the main thrust of our social sector reform is on: alleviation of poverty, hunger and disease; improving rate of literacy; and control of population explosion. The goals set by the Government regarding self reliance; self sufficiency and economic independence are very demanding. I, therefore, look forward to receiving concrete suggestions from the professional Bodies like Pakistan Engineering Congress."

He further remarked, "You are aware that we are compelled to spend a major portion of our national budget on defence and in servicing the previously obtained loans. We have to keep ourselves vigilant and alert because of the volatile and unstable conditions in the region, in particular when a neighbouring country is piling up nuclear arsenal and sophisticated defence armaments and installing medium and long range missiles all along our borders. Despite all these impediments and pressures, we are not oblivious to development needs confined though to our limited resources. Over the years, sizeable developments have taken place in the fields of irrigation, agriculture, industry and their related infra-structure. Engineers did play a pivotal role in these fields, but our resources could not keep abreast of our demands".

The Chief Guest went on to say: "I appreciate that in his address today the President of the Pakistan Engineering Congress has pointed out to various issues which could be the immediate concern of the nation and those who lead it. He, in particular, has laid emphasis on the harnessing of our precious surface water, about 25% of which (between 35-40 million acre feet) is flowing unutilized to the sea. God has given Pakistan a vast area of

arable land, excellent climate and hard working farmers. With its largest contiguous irrigation network, sizeable surface water resources and prospects of its optimum exploitation, Pakistan has the potential to produce food and fiber not only for its own requirements but also to meet the needs of its neighbours. To make the best use of this renewable resource, we have to conserve it through construction of storages on all available sites on the main rivers and tributaries. Besides stemming loss of storage on the existing reservoirs, these would provide, much needed additional irrigation water; control floods; and generate cheap hydro-power to keep the electricity tariffs within affordability of consumers."

"Realizing the urgent need for harnessing the unutilized surface water resource, recently" the Chief Guest continued, "WAPDA prepared a package of new major reservoirs on the Indus with associated irrigation schemes of the provinces. Due to very advanced engineering preparedness based on extensive investigations and studies, Kalabagh Dam Project was, however, the basic plank of this package. Consequently, Federal Government initiated a campaign to explain the main features of the package in an attempt to achieve national consensus, particularly on this Dam. As this project had been mired in controversy over the last 10-12 years, unfortunately the same situation re-emerged, particularly in the three smaller provinces. Though Government provided adequate explanations to various technical objections and apprehensions against the project, the political hostility of the smaller provinces was persistent. Probably, this has its roots in misconceptions about the project as well as the lack of mutual confidence and trust between the federating units particularly on regulation and distribution of surface water. To remedy this situation Government have already taken some policy decisions, regarding confidence building measures including shifting of IRSA headquarters from Lahore to Islamabad, with enhanced representation of Sindh on this Body. The measures to ensure its effective and transparent working are yet another such measure. Another very important decision has been taken to authorize WAPDA for priority undertaking of engineering and related studies for Kalabagh Dam and Basha Dam along with associated irrigation schemes of provinces."

"There are no two opinions" the Chief Guest said, "About harnessing the vast hydropower potential of our rivers. Furthermore, due to high capital investment and long gestation period major hydropower developments can be achieved only through multi-purpose storage projects in the public sector. It is expected that completion of the proposed fast track engineering studies on Basha Dam will establish the firm feasibility of developing about 3400 MW of additional hydropower. Moreover, WAPDA is undertaking investigation and studies for Bunji Hydropower Project on the Indus main with a potential between 700-1000 MW."

As about the demand of engineers for setting-up of a proper service structure the Chief Guest said, "I understand that the demand of engineers is quite old. Further, relevant proposals might have been considered by various Service Structure Committees/ Commissions established from time to time. I, therefore, urge upon the Engineering Congress to search the archives and come up with viable proposal vetted by Pakistan Engineering Council. Concluding, the Chief Guest said, "Mr. President, in your Address you have mentioned about the reversal of Government policy of 1989 when most of the technical Federal Ministries and provincial Departments were headed by engineers or technocrats. You have proposed restoration of this position which will also enable active association of engineers at various stages for the formation and implementation of Government policies. I would request the Government of Pakistan to give a serious consideration for your proposal." He then declared the Annual Session open.



From Left: Engr. Ch. Ghulam Hussain, Mr. Amer Sultan Cheema, Minister for Irrigation, Govt. of Pakistan and Engr. Ch. Muhammad Rashid Khan, President PEC (69<sup>th</sup> Annual Session).



President PEC Engr. Ch. Muhammad Rashid Khan presenting shield to the Honourable Chief Guest Mr. Amer Sultan Cheema.



A view of the audience.