

**The 70<sup>th</sup> Annual Session** (2004-2006) held in December, 2006, inaugurated by the Chief Guest **Ch. Amir Hussain**, Speaker National Assembly of Pakistan. **Engr. Rana Muhammad Saeed Ahmad Khan** was the President of Pakistan Engineering Congress during the session.

The following activities were carried out during the session:

**1. World Water Day – 22<sup>nd</sup> March 2005**

The event was observed by the Congress in collaboration with WAPDA at their Auditorium Lahore. The Theme was “Water for Life”. Speakers presented their papers. The papers presented at the occasion were printed in Book form & supplied to Engineering Universities, Libraries, and Irrigation Department etc.

**2. World Environmental Day – 5<sup>th</sup> June 2005**

The event was observed by the Congress at Avari Hotel, Lahore. The Theme was “Green Cities”. The papers presented were bound in hard back and duly provided to the national libraries.

**3. World Water Day – 22<sup>nd</sup> March 2006**

The event was observed by the Congress in collaboration with WAPDA at WAPDA Auditorium. The Theme was “Water & Culture”. The papers presented on the occasion were published in Book Form.

**4. World Environmental Day – 5<sup>th</sup> June 2006**

It was observed by the Congress at WAPDA Auditorium. The Theme was “Deserts And Desertification”. The Chief Guest, Dr. Ishfaq Ahmad, Special Advisor to Prime Minister presented his paper entitled “Global Warming & Its Impact on Pakistan’s Economy”

Afterwards, various experts on environmental issues presented their papers. These were published in the Quarterly Journal of the Congress “Engineering News”.

**5. TECHNICAL VISITS**

**5.1 56<sup>th</sup> International Executive Council Meeting of the ICID – Inter-Regional Conference 5-11 September, 2004 at Moscow.**

Three Member delegation of Pakistan Engineering Congress comprising Engr. S.M.A. Zaidi, Engr. Rana Khursheed Anver, and Engr. Muhammad Raqib Khan attended the meeting in Moscow.

The topic of the Conference was “Food Production and Water, Social & Economic Issues of Irrigation & Drainage”.

The objective of the visit was that in addition to the usual exchange of technical knowledge and experience there should be a strong introduction of Pakistan & “Pakistan Engineering Congress” to the delegates from 140 odd countries. It was achieved through:

1. A special Bulletin titled “Welcome to Pakistan” meticulously drafted, designed and printed were distributed among ICID delegates in Moscow.
2. Large size attractive posters portraying a series of snow-clad high peaks, large glaciers of the world high altitude lakes. Colors of culture and archeological relics were specially arranged from the Federal Secretary Tourism and Culture and displayed at the venue.
3. A 4 hour documentary showing Northern Areas, Gilgit, Hunza, Baltistan people with their typical costumes, folk dances, music, sports like polo, Buzkashi, were also shown. Also the 2<sup>nd</sup> highest peak of the world K-2 Nangaparbat and the largest glaciers of the world wren on continuous display.

On top of all, the delegation was lucky to get a slice of 10 minutes to address around 500 delegates from 68 countries.

The speech was delivered by Engr. R. K. Anver, which earned a resounding appreciation and evoked profound interest of the participants to visit an amazing land as Pakistan at the earliest opportunity - the ensuing session of ICID scheduled in Pakistan.

“Mr. Chairman, President Rucid, Honourable Guests, Ladies and Gentlemen,

I am really grateful to the management of Rucid specially Miss Irena Bondarik, for allowing me a little slice of time to address this plenary session of ICID. AS you all know, Pakistan is hosting ICID in year 2008. Here I would add that while coming to Pakistan, you would be visiting a fascinating land of scenic contrasts widely varying in its climatic, demographic, physiographic and socio-economic dimensions. I won't elaborate this statement. You would feel the grip as you enter the marble hall and look to the left where a documentary of Pakistan is running.

Pakistan can be divided in three hydrologic basins of which Indus Basin is the largest. It comprises an area of 216,000 square miles, and supports 95% of the country's population. Up in the North, you would find the largest amphitheater of the world formed by the 3 greatest mountain ranges namely, the Himalayas, Hindukush and Karakoram. It is an area where nature exists in its primordial glory and where you could enjoy the magic and mystery of the life. There are high altitude emeralds green lakes like Saif-ul-Maluk. Their dazzling beauty holds you spell bound. The expanse of DeoSai plains (over 80 square miles) sitting at an altitude of 12,000 feet (highest in the world) with the unlimited variety of natural flowers, arranged by mother nature be forgotten by the visitor.

It is here that the mighty Indus rises from some of the world's highest mountains and the largest glaciers and then it traverses through awe inspiring and unbelievably deep gorges and Indus plain enroute to the Arabian Sea.

History of irrigation in Pakistan dates back to the times immemorial. With time it developed into the largest contiguous irrigation system of the world, comprising 3 large reservoirs, 20 barrages, 43 canal systems and 44,000 miles of irrigation channels, 6,000 miles of surface drains, 12,000 deep drainage wells and over 6000,000 shallow tube wells in sweet water zones to supplement the irrigation effort.

We are presently diverting around 106 M.A.F of River waters for irrigating 35 million acres. Besides, private tube wells are adding another 44 M.A.F of water for agricultural use annually. Looking to the Worlds Statistics, Pakistan stands 4<sup>th</sup> in the irrigated area, 5<sup>th</sup> in drainage and 6<sup>th</sup> in population.

Here, it may be worthwhile to mention that the entire gigantic network was mostly designed on the basis of indigenous formulae developed by irrigation engineers of Punjab Province. Some 80 years back, Mr. A. N. Khosla, a Punjab engineer, developed the latest theory for the “design of weirs/barrages on permeable foundations” while Mr. Gerald Lacy, another Punjab Engineer developed a theory for the “design of stable channels in alluvial soils”. These formulae later achieved global acclaim and even today are in extensive use in generic or somewhat improved forms. All such theories and designs were developed and projected from the platform of then PUNJAB ENGINEERING CONGRESS and now PAKISTAN ENGINEERING CONGRESS. I would add that even the engineers of 21<sup>st</sup> century with their innovative techniques don't feel confident unless they cross check their results with those from Lacey/Khosla formulae.

Here it may be worthwhile to give a brief introduction of Pakistan Engineering Congress.

Pakistan Engineering Congress was established in 1912 with the name of Punjab Engineering Congress and on creation of Pakistan, it was renamed as Pakistan Engineering Congress. It is

a premier multidisciplinary professional organization with a select membership of about 4,000 practicing engineers. The basic aims and objectives include promotion of engineering profession through annual session, symposium, seminars, lectures and workshops its members a unique platform for discussion and exchange of engineering knowledge and experience. The papers presented at its various technical sessions numbering more than 1,000 have been carefully preserved in chronological order in the archives of Congress. It is a continuous process. The Congress also arranges visits to out stations engineering works at regular intervals for the professional benefits of its members. The quality magazine named as "The Engineering News Journal" provides news, views and technical operation. The Congress has no political, governmental or territorial bias. The Pakistan Engineering Congress is open to international interactions and invites similar information from all over the globe to share knowledge and experience with us, under the provision of written M.O.U.s for which we delegates have already received positive indications.

Ladies and Gentlemen, at the entrance of the Marble Hall, you would find a high grade display introducing Pakistan in pictures exhibiting the world's highest mountains, largest glaciers and rare archeological relics. We are also running a documentary showing physiographic dimensions and colors of culture in Pakistan, with a short stopover you in the field of adventure and archeological tourism. Nowhere else in the world you would find such a great concentration of high mountain peaks, glaciers, high passes and historic relics.

We promise you a memorable trip to our great country whose hospitality is proverbial.

Finally on behalf of Chairman PANCID, Pakistan Engineering Congress, our delegates and on my own behalf, I extend to you our heartiest welcome on your visit to Pakistan for the ICID Conference in the year 2008. We keenly look forward to hosting this great event.

Thank you very much for bearing with me for such a long time."

### **5.2 Visit to GAWADAR – December 2004**

A 25 member Congress delegation visited Gawadar Port, third largest port of Pakistan in Balochistan Province. It is the Hub of main commercial and strategic route linking Europe and Middle East to eastern Mainland countries through Pakistan.

### **5.3 Visit to Makran Coastal High – Way December, 2004**

After visit to Gawadar Port these delegates had the opportunity of paying a technical visit to Makram Coastal Highway & travelled by road from Gawadar to Karachi. Total length of the Project is 653 Km starting from Shaik Raj. Approximately, 105 Km north of Karachi on RCD Highway (N-25) and ending at Gabd near Pak-Iran Border. This highway provides an all weather road to serve the population of the entire Coastal belt and facilitates communication and trade by linking Karachi with ports of Omara, Pani, Gawadar and Jiwani. It will also cater for the international traffic from Iran, Gulf and Central Asian States and facilitate trade between Pakistan and these countries.

The delegates evinced keen interest in both the Projects.

### **5.4 Visit to Ring Road Project Lahore – 19.3.2005**

Objective of Lahore Ring Road is to provide limited access, high speed facility ensuring uninterrupted flow of traffic thereby giving relief to congested arterials of the City. Lahore Ring Road (Niazi Chowk) to Ferozsepur Road Segment) was divided into 19 (Nineteen) Contract Packages.

### **5.5 Visit Dharampura Under-Pass-24.2.2005**

A Congress delegation visited the project during the Construction Phase.

**5.6 Visit to Additional Overhead Bridge at Jhal Khanuana Faisalabad – 31.3.2005**

A Pakistan Engineering Congress delegation paid a Technical Visit to the overhead Bridge at Jhal – Khanuana, Faisalabad. The existing Jhal Khanuana Bridge connecting the Jhal Khanuana Chowk with GTS Chowk through the two-lane, two-way flyover was one of the busiest and most congested transportation facilities in Faisalabad. Hence additional overhead bridge, 10m wide, has been constructed adjacent to the existing bridge.

**5.7 Visit to Pak Arab Fertilizers (Pvt) Ltd Multan 18.2.2005**

A 40 Member delegation reached Taunsa Barrage Emergency rehabilitation and modernization project after a visit to Pak Arab Fertilizer Factory, Multan on 19.2.2006. The visit provided a rare opportunity of academic and practical learning of a Mega Construction Project with a large hydraulic structure on a Mighty Alluvial River.

Engr. Rana Muhammad Saeed Ahmad Khan President (PEC) presented address of welcome to the Honourable Chief Guest Ch. Amir Hussain, Speaker National Assembly. The President (PEC) thanked the Chief Guest for sparing time out of his busy schedule. In introducing the oldest NGO Organization of the Engineering Community, the President gave a brief account of the history of the Congress, its aims and objectives of voluntarily promoting Science and technology outside the Government ambit, its achievements in producing a massive technical knowledge in the shape of technical papers at Annual Sessions, Symposia and Seminars on the issues besetting the national economy and progress and recommending their viable solutions to the Government.

After the introduction of the Congress Organization the President said, “Sir, in the domestic arena, to keep harping on the need of finding a consensus on such a life saving issue as construction of Kalabagh Dam to please a few diehards is nothing but a travesty of truth, as cases like this is of national importance. Few eyewash projects as construction of a myriad of small Hydropower Projects presently in hand, with all their generation capacity added, cannot match the amount of the energy to be produced by Kalabagh Dam Project alone while conservation of the direly needed irrigated water would remain a far cry and the precious river water will continue to be wasted untapped and unavailed into the sea. A crime of colossal proportions at the national level, no doubt, Sir, Construction of Diamer Basha Dam would require about 9 to 10 years for becoming operational. This is another long period for letting loose forces of negligence gnaw at the national economy to such an extent that it may take eons to make up for the damages already sustained. As an example it would not be out of place to mention that Bangladesh importing raw cotton material from Pakistan is exporting about double the foreign exchange worth of finished garments than Pakistan thanks to their booming industry”.

“We, as engineers,” he went on “feel pride in executing tasks of various Projects assigned to us to the best of our faculties and with domestic expertise except for a minimal expatriate input. To quote a few; we have completed 175 miles long Chashma Right Bank stage-III Canal feeding 570,000 Acres of fallow lands of D.I. Khan & D.G. Khan Districts and providing potable water to millions of people. We have rehabilitated 100 year old infrastructure of Sukkur Barrage, world’s classic engineering feat where seven canals rather mini rivers take-off; we are in the process of raising capacity of Mangla Reservoir; rehabilitating ageing Taunsa Barrage and providing clean & potable sub-surface water to various urban as well as rural areas and drainage of sewage for treatment and further disposal without aggravating pollution menaces. We may shortly

be launching on the construction of Diامر Basha Dam Project; we are in an advanced stage of construction of Greater Thal Canal to irrigate desert of districts of Mianwali & Jhang and Feeder Kachhi Canal to carry irrigation and potable water from Taunsa Barrage to our brethren in Balochistan; we are reclaiming hundreds of thousands of acres of water logged land on both flanks of river Sindh downstream of Rohri. In the communication discipline we have linked every nook and corner of the country through motorways, dual carriage ways and farm to market roads. Efforts are underway where our Engineers are instrumental in providing electricity to almost all the villagers of Pakistan by the end of the next year. In the telecommunication field we have achieved level comparable to the developed countries. Again in the earthquake ravaged areas our engineers are busy in rehabilitation work. But the crux of all this progress is energy and energy is not to come by through via Medias unless the mega sources are tapped in earnest and anon”.

“Strangely enough Sir”, the President continued, “In the astronomical growth of China’s industry, it is the availability of abundant energy which has made the miracle happen. Quite unbelievable, it is free in certain industrial zones. Little wonder that the country is becoming a future industrial giant with a GDP increase of over 8% per annum”.

The Chief Guest Honourable Ch. Amir Hussain Speaker National Assembly of Pakistan in reply to the welcome address observed, “I feel extremely honoured at being invited to inaugurate this 70<sup>th</sup> Annual Session of Pakistan Engineering Congress, the oldest body of professional engineers in the country. I also feel privileged on being provided the opportunity to meet this large gathering of elite engineers from all over the country. It is indeed very interesting to learn that the Congress is a non-profit non-government organization engaged in the promotion of science and technology and is self reliant to achieve its goals and that its office bearers are all honorary workers. I am also glad to note the major technical contributions made by the Congress through its technical papers on completed and ongoing mega projects and through Symposia on various impending issues. It is heartening to note that Pakistan Engineering Congress has introduced a good number of Scholarships to the talented engineering students of all the engineering universities in the country. It is also offering scholarships of appreciable amounts to the needy engineering students of deceased engineer parents, and to orphan engineering students of earthquake ravaged families”.

He went on to say, “Rana Sahib has attributed all the above menaces to non-construction of Kalabagh Dam. The standing committee of the national assembly has taken due cognizance of it and stressed that construction of the Dam is essential to avoid shortage of water for irrigation and generation of energy. It would also be instrumental for creating jobs which in turn will mitigate crime. The Congress President has also spoken of poor service structure of Engineers resulting in flight of professionals abroad and heading of technical departments by non-professionals. In this regard I assure you that I would find an opportunity to place the copy of the address presented today by Rana Saeed Ahmad Khan along with my reply, before the Government of Pakistan requesting for initiation of necessary action. I would, however, take this opportunity to counsel you to continue absolving yourselves dedicatedly and with honesty, of the confidence reposed in you by the nation. This demeanor on your part will provide you the much needed inner consolation which is a blessing for anybody. It is my sincere advice to you to persevere and wait for good time which is sure to come soon your way. I feel the Government will not continue to remain forgetful of your predicament and the issues pointed out in your address”. With this advice the Chief Guest concluded his inaugural speech.



President PEC (70<sup>th</sup> Annual Session) introducing the Governing Body PEC (70<sup>th</sup> Annual Session) to the Honourable Ch. Amir Hussain, Speaker National Assembly of Pakistan.



From Left: Engr. S. M. A. Zaidi, Honourable Chief Guest, Ch. Amir Hussain, Speaker National Assembly of Pakistan and Engr. Rana Muhammad Saeed Ahmad Khan, President PEC (70<sup>th</sup> Annual Session)



Engr. Rana Muhammad Saeed Ahmad Khan, President PEC (70<sup>th</sup> Annual Session) presenting shield to the Honourable Chief Guest Ch. Amir Hussain.



A view of the audience.