

**The 71<sup>st</sup> Annual Session** (2006-2011) was held at P.C. Hotel Lahore on July 26, 2011 under the Presidentship of a young & dynamic **Engr. Husnain Ahmad. Syed Yusuf Raza Gilani** the Prime Minister of Islamic Republic of Pakistan was the Chief Guest.

The following activities were pursued during the session:-

1. Visit to Taunsa Barrage: Enroute to Taunsa, the delegates paid a visit to Arab Fertilizer Factory Piran Ghaib where they were taken around the various departments of the factory Units by the management and briefed on the role of factory in the agricultural development of the Country. The following day on March 25, 2007 they visited Electrical, Mechanical and civil works of Taunsa Barrage Emergency Rehabilitation and Modernization Project. The Project Manager gave a comprehensive briefing followed by a site visit of the project.
2. Visit to Agriculture University Faisalabad: On August 4, 2007, a delegation of the Congress paid a visit to University of Agriculture, Faisalabad. An elaborate presentation about the evolution of Agriculture Education and Research in Punjab was given by the management. The delegates were then taken around the laboratories and briefed on the ongoing Research Work.
3. Sialkot International Airport: A delegation of the Congress visited Sialkot International Airport, Marala Barrage and a Football Manufacturing Factory on November 17, 2007. The delegation was given a detailed presentation about the necessity for the construction of an International Airport at Sialkot, the only private Airport in Asia, built on self-help basis by the local industrialists. Later the delegation was taken around various components of Marala Barrage. In the evening, they paid a short visit to a Football Manufacturing Factory.
4. International Conference on “Advances in Cement Based Materials and Applications in Civil Infrastructure – (ACBM – ACI)” 12 – 14 December, 2007: A strong delegation of the Congress participated in the above cited International Conference and obtained firsthand knowledge of the latest advancement in the cement based materials and their applications in civil infrastructure. It was a very important conference attended by around 100 eminent material scientists and engineers including 17 foreign delegates. It was also addressed by President of the Congress.
5. 20<sup>th</sup> International Congress and 59<sup>th</sup> International Executive Council (IEC) Meeting: Pakistan engineering Congress Participated in The 20<sup>th</sup> International Congress and 59<sup>th</sup> International Executive Council (IEC) Meeting, on Irrigation and Drainage held in Lahore, Pakistan, during 13-18<sup>th</sup> October, 2008. The theme of the Conference was “Participatory Integrated Water Resources Management – from Concepts to Actions”. President Pakistan Engineering Congress donated Rs. 1.5 million to the organizers of IEC on behalf of the Congress.
6. Symposium on “Introduction of Modern Precast Concrete Technology”: A Strong delegation of the Congress, led by the President, participated in a Symposium on “Introduction of Modern Pre-cast Concrete Technology” held on 13<sup>th</sup> January, 2009 at NUST, Islamabad. The Congress as one of the sponsors contributed Rs. 1 Lac.
7. Visit to Mangla Dam Raising Project: A 25 member delegation of Pakistan Engineering Congress led by Engr. Husnain Ahmad, President (PEC) visited Mangla Dam on 4<sup>th</sup> April, 2009. The delegation was briefed about the Mangla Dam Raising Project by Construction Manager and other Senior Engineers. After the briefing, Emergency Spillway, Main Spillway, main Dam, Intake Area and Mangla Fort were visited.

8. Workshop on “Organizational Excellence through Workforce Motivation”: A delegation of the Engineering Congress, attended a Workshop on “Organizational Excellence through Workforce Motivation” at University of Engineering and Technology, Lahore.
9. 60<sup>th</sup> international Executive Council (IEC) meeting and 5<sup>th</sup> Asian Regional Conference (ARC): A 2-member Pakistan delegation led by the President (PEC) to the 60<sup>th</sup> International Executive Council (IEC) meeting and 5<sup>th</sup> Asian Regional Conference (ARC), held during 6-11 December 2009 in New Delhi, India. The 5<sup>th</sup> Asian Regional Conference highlighted the theme of “Improvement in Efficiency of Irrigation Projects through Technology Up-gradation and Better Operation and Maintenance”. During above events, over 32 ICID work body meetings and 6-Special Sessions were held. President Pakistan Engineering Congress was selected as member for “Permanent Committee for technical Activities” (PCTA). Prof. Dr. Rai Niaz Ahmad’s ‘Wheat Bed Planter’ won him the WatSave Technology Award 2009. The Pakistan delegation comprising 6-members also bagged:
  - 5-Nominations on Working Groups
  - 1-Nominations on Task Force
10. Seminar on Advances in Cement Based Materials: A high powered delegation of the Congress participated in the international Seminar on Advances in Cement Based Materials, on January 21-22, 2010, at NUST, Islamabad.
11. Conference on the theme of “Trans-boundary Aquifers and International Law”: President Pakistan Engineering Congress attended the conference on the theme of “Trans-boundary Aquifers and International Law” held on 31<sup>st</sup> August 2010, organized by Faculty of Management and Law University of Surrey, UK. The President met several delegations including representatives of UNESCP besides meeting Several UK based Pakistani Engineers. Congress publication on “Trans-boundary Waters” was presented to the organizers of the Conference.
12. 61<sup>st</sup> International Executive Council Meeting and the 6<sup>th</sup> Asian Regional Conference of International Commission on Irrigation and Drainage, Yogyakarta–Indonesia: A 2-Member Pakistan delegation comprising President (PEC) and Vice-President, Engr. Syed Mansoob Ali Zaidi of the Engineering Congress Participated in the 61<sup>st</sup> International Executive Council Meeting and the 6<sup>th</sup> Asian Regional Conference of International Commission on Irrigation and Drainage, Yogyakarta – Indonesia, (10 – 16, October 2010). The President presented a video of the flood devastation and loss of precious lives, property, standing crops, live stock, and infrastructure and above all the displacement of 20-million People a nightmarish Trauma. The delegates at the Conference were greatly moved on seeing the colossal Socio-economic damage caused by the Floods. It was decided by ICID to hold an “International Workshop on Floods” in Pakistan within 3-4 months for generating financial and in kind aid in earnest. The President was elected as Vice-President ICID (2010-2013) as well as member of “Permanent Committee on Strategy Planning and Organizational Affairs” (PCSPOA).  
 Engr. Syed Mansoob Ali Zaidi, Vice-President was elected as Member ICID Task Force on “Sedimentation”.

### Events

13. World Water Day-2007: On March 31, 2007, World Water Day was held at WAPDA auditorium, Lahore, on the theme of ‘Scarcity of Water’. Eight technical papers were presented, discussing problems cropping-up in the context of availability of surface

- water, groundwater, waste-water, their frugal usage, conservation and ways for overcoming of scarcity through management and technical measures. Papers were published in an exclusive book.
14. World Environment Day 2007: It was observed on June 02, 2007 at Congress auditorium. The theme discussed was “Climate Change”. Seven papers on the theme were presented and published in an exclusive book.
  15. Book Launching Ceremony: A Book Launching ceremony of the book on “Weirs and Barrages Across alluvial Rivers” – by Engr. Iqtidar Hussain Siddiqui, was held on November 10, 2007.
  16. World Water Day 2008: World Water Day was commemorated on March 20, 2008, at its Mashhadi Hall. “Sanitation” was the theme of the event, on which nine papers were presented and discussed. These were published in a book form.
  17. Symposium on “Procurement and Contract Management”: A Symposium on the topic of “Procurement and Contract Management”, was held on March 29, 2008, at the Punjab Civil Officers Auditorium GOR-I. Key Note address was delivered by Engr. Rana Khursheed Anver. Seven technical papers relevant to the discipline of Procurement and Contract Management were presented.
  18. World Environment Day 2008: A seminar on World Environment Day was held on the theme of “Kick the Habit – towards a low Carbon Economy”. The President enlightened the gathering about the life threatening presence of Carbon Emissions by Gas / Fuel fired power plants and environment disturbance by deforestation, fossil fuel, transport, and other human activities. Speakers presented papers on various topics regarding low carbon future economy. The papers were published in a book titled World Environment Day-2008.
  19. World Water Day-2009: President, Pakistan Engineering Congress, addressed World Water Day Seminar, held at its auditorium, on March 28, 2009. The theme discussed was “Transboundary Waters, Shared Water – Shared Opportunities”, in which he highlighted and focused attention specifically on Trans-boundary Waters and importance of fresh water, advocating for the sustainable management of fresh water resources. He also stressed for the need for entering into an agreement for the use of Kabul River Waters with Afghanistan. Six Technical papers related to Trans-boundary Water issues, their origin & agreements were presented, which were published in a book titled World Water Day-2009
  20. World Environment Day 2009: The World Environment Day was observed on 6<sup>th</sup> June, 2009 at Mashhadi Hall of the Congress on the theme of “Your Planet Needs You: Unite to Combat Climate Change”. Fourteen technical papers on the main aspects of unsafe drinking water, social and economic effects of weather and climate were presented at the event. These were published in a book titled World Environment Day-2009.
  21. Symposium on “Genesis of Power Crisis and its Management in Pakistan”: A symposium on the most burning issue of “**Genesis of Power Crisis and its Management in Pakistan**” was held in July 2009, at PC, Hotel Lahore. Key Note address was delivered by Engr. Rana Khursheed Anver. Syed Khurshid Ahmad Shah, Federal Minister for Labour and Manpower was the Chief Guest. President PEC, in his Welcome Address traced the Genesis of the Crises, a result of extreme negligence in planning of developing projects, non-construction of big dams for conservation of water and generation of cheap electricity vis-à-vis generation of Thermal energy. Ten papers

were presented by Water and Power Resources experts. Recommendations for combating the crises in the Short / Long Terms were formulated by a panel of experts and furnished to the relevant Federal / Provincial Govt. Departments.

Based on deliberations amongst others the following recommendations were framed for the policy makers:

- At least 20,000 MW of power generation will be required by Pakistan to meet the requirement of fast pace developing industrial world, during next decade; therefore, injection of cheap hydropower through construction of multipurpose storages / dams with effective participation of private sector to meet with the energy and food Crisis was emphasized.
  - Construction of big dams like Kalabagh and Bhasha must be built and built fast. Other form of renewable energy like solar and wind energy also be given due attention.
  - Appropriate conservation measures, encouraging use of more energy savers, installation of capacitors to improve power factor and rehabilitation of distribution feeders to reduce line losses. Load management and public awareness is also required to be adopted to improve the critical situation of power.
  - Pakistan has dependable and extremely efficient gas Transmission and Distribution networks belonging to two gas companies operating in the country. However, in order to meet the shortfall of gas for power generation and other industrial usage, it is imperative that gas should be imported on fast track basis either through Iran-Pakistan-India (IPI)/Turkmenistan-Afghanistan-Pakistan (TAP) or through import of LNG (Liquefied Natural Gas). There is an urgent need for improvement in exploration activities and for increase in indigenous gas production.
  - Self-generation / power production is proposed to be done at community level, particularly in rural areas, with the assistance of GoP. A few projects fit in the rural energy model for participating and decentralized energy production on small scales which may be more economical than extending the central grid station as;
    - i) Micro-hydro power generation,
    - ii) Bio-mass power generation, Bio-gas plants and garbage power,
    - iii) Solar Photovoltaic Cells, Solar home solutions, Solar-powered cookers, Water heaters, Solar water pumping, Solar street lighting system etc, and
    - iv) Micro-wind power generators,
22. World Water Day-2010: The World Water Day, 2010 was jointly celebrated by the Pakistan Engineering Congress and Water and Power Development Authority on 22<sup>nd</sup> March 2010 at Mashhadi Hall. The theme of the event was “Communicating Water Quality Challenges and Opportunities”. Ten papers presented by water resources experts and were printed in a book titled World Water Day-2010.
23. World Environment Day-2010: World Environment Day was held on June 05, 2010 at Mashhadi Hall of Congress headquarters. The theme was “Bio-Diversity Connecting with Nature – Many Species, One Planet, one future”. Ten Technical papers presented at the event were published in a book titled World Environment Day-2010.

24. International Workshop on Floods in Pakistan – 2010 (Lesson Learnt and Way Forward) held on Saturday, the 12<sup>th</sup> March 2011: In accordance with the decision of 61<sup>st</sup> IEC meeting and 6<sup>th</sup> Asian Regional Conference of International Commission on Irrigation and Drainage (ICID) held in Yogyakarta, Indonesia from 10 – 16 October 2010, this workshop was held at the Congress auditorium on March 12, 2011. It was the first International Conference organized by Pakistan Engineering Congress in collaboration with ICID (International Commission on Irrigation & Drainage), WWF, PANCID and Government with the foreign delegates participating at their own cost.

A message was received from the then President of ICID, **Prof. Dr. Chandra A. Madramootoo;**

“We were deeply moved with the calamitous disastrous major floods in 2010 in Indus system in Pakistan. As I reflected in my message for the ICID News (2010/3) prior to Yogyakarta meetings, ICID pledged to work with the National Committees in their efforts to rebuild their countries, in all flood ravaged countries like Pakistan, China, etc.

I recall the decision in Yogyakarta during our last Council meetings that ICID Working Group on Comprehensive Approaches to Flood Management (WG-CAFM) should convene an exclusive workshop in Pakistan soonest and consider all technical and other managerial issues including restoring the damaged irrigation systems to restore livelihood of the Pakistani people.

I am pleased to note the hard efforts of our colleagues in PANCID as well as members of the WG-CAFM in proceeding as per IEC’s decision and plan a Workshop in Lahore on 12 March 2011. I am sure that this will provide a great opportunity to take on board many facts that emerged out of unusual floods of 2010 in Indus and bring out some feasible options to restore the impressive Indus irrigation systems besides effective flood management in the future.

I wish the Workshop all success.”

12 Papers were presented at the Workshop on various aspects of the floods to combat / mitigate the damaging effects.

Towards closure of the workshop, the speakers assembled for discussion and formulation of a set of recommendations.

### **RECOMMENDATIONS TO FEDERAL GOVERNMENT FOR IMPROVING FLOOD MANAGEMENT IN PAKISTAN**

1. The flood management in Pakistan needs an integrated system catering for all pre-flood, during the flood, and post-flood requirements.
2. Water storages, both on-channel and off-channel, have to be built to attenuate the flood peaks.
3. The flood warning and forecasting systems all over the country need extension and improvement. The capacity building both in terms of equipment (weather radars), softwares, and human resources need immediate attention.
4. All river works; especially flood protection works and barrages should be given due importance and priority in resource allocation; irrespective of flood frequency. All the flood bunds in the country should be redesigned to meet the latest requirements.
5. New bund systems should be planned on holistic requirements.

6. The riverine/khadir (active flood plain) areas need better regulation and a proper enforcement mechanism for planned use in due consideration of flooding risks.
  7. Regular updating of the Standard Operating Procedures (SoPs), drills for disaster management, capacity building, and training of managers for flood protection, Barrage management, and relief works, need immediate positive attention.
  8. All the known flood routes and drainage systems should be kept in good order and new ones identified.
  9. The general public must be kept duly informed on all aspects of floods and their risks alongwith managing positive role of the media.
  10. Only properly qualified, well trained and dedicated staff should be entrusted with the charge of barrages and flood works.
  11. Better inter provincial coordination is needed for embankments and channels which serve more than one province.
  12. The Federal Flood Commission (FFC) presently has a limited role. This role needs to be enhanced along with expansion of the organization. The idea of conversion of the FFC into a Federal Flood Control Authority (FFCA) needs serious consideration. This Authority if created should have proper in-depth coordination with provincial flood and barrage management organizations.
25. World Water day – 2011: World Water Day was observed on April 16, 2011 on the theme of “Water for Cities-Urban Challenges”. 10-papers were presented. The recommendations of the panel of experts were uploaded on the Congress Website.
26. World Environment Day – 2011: World Environment – Day on the theme of “Forests: Nature at your Service” was observed at the Headquarter of Pakistan Engineering Congress. In all 12-papers were presented and published in a book form.

#### **Lectures:**

1. Lecture on National Trade Corridor in the Regional and Global Context”: A lecture was delivered by Dr. Engr. Asad Ali Shah, Member Infrastructure and Energy Planning Commission, Government of Pakistan, on the topic of “National Trade Corridor in the Regional and Globe Context”, at Mashhadi Hall of the Congress on February 17, 2007. Engr. Asad Ali Shah spoke on the launching of National Trade Corridor for revamping transport sector including Ports and shipping, roads, railways, trucking, aviation and trade facilitative measures. According to the speaker, ‘Gawadar’ would be one of the most advanced cities in the world in a decade and would be a hub of economic development.
2. Lecture on “Innovative Design and Construction Methodologies used in Roller Compacted Concrete Dams” : A very absorbing and illuminating technical lecture was delivered by Engr. Ch. Foad Hussain – Associate Partner of National Development Consultants on February 9, 2008, at Mashhadi hall, of the Congress on the topic of “Innovative Design and Construction Methodologies used in Roller Compacted Concrete Dams”. Mr. Peter Mason of Montgomery Watson Harza, the Chief Guest took keen interest in the latest technology of Roller Compacted Concrete, being used in the construction of the Dams in China.
3. Lecture on “Learning architectural and Engineering Lessons from the World Trade Tower Building Collapse on Ground Zero: A lecture was held at the

Congress Headquarters on November 27, 2008 on “Learning architectural and Engineering Lessons from the World Trade Tower Building Collapse on Ground Zero”, in collaboration with American Concrete Institute Pakistan, Chapter and Lincoln Corner Karachi. A panel of experts on high rise buildings in Pakistan, present at the event, gave their views.

4. Lectures on Modern Concrete System for Construction and Repairs: Pakistan Engineering congress held lectures on 21<sup>st</sup> November, 2009 at Mashhadi Hall, of the Congress, on the topic of “Modern Concrete System for Construction and Repairs” by Prof. Dr. Ing. Syed Ali Rizwan (NUST) and afterwards on the topic of “Project Quality Management” by Engr. Syed Mansoob Ali Zaidi, Technical advisor / Associate National Development Consultants (Pvt) Ltd.
5. Lecture on high Early Systems” and “Sustainable Construction in Germany and Europe: Two lectures were held on 23<sup>rd</sup> January, 2010, at Mashhadi Hall, of Congress on the Topic of “High Early strength Grout Systems” by Prof. Dr. Ing. Syed Ali Rizwan (NUST) and afterwards on the topic of “Sustainable Construction in Germany and Europe” by Prof. Dr. Ing. Thomas A. Bier Germany.
6. Lecture on the topic of “Water Sustainability through Conservation”: It was delivered by Mr. Naeem Qureshi Chief Executive, M/S Progressive Consulting Engineers, Inc. USA, on a visit to Pakistan.
7. Lecture on the topic of “Quality Management and Quality Assurance”: It was delivered by Engr. Mirza Muhammad Sadiq, General Manager (Retd) WAPDA.

Awards conferred at the occasion of 71st Annual Session:

- **Professional Excellence Awards**

1. Engr. Syed Mansoob Ali Zaidi
2. Engr. Dr. Izhar-ul-Haq
3. Prof. Dr. Ing. Syed Ali Rizwan
4. Engr. Mian Muhammad Javed
5. Prof. Dr. Muhammad Mansoor Ahmad

- **Congress Medal**

Engr. Barkat Ali Luna, Engr. Malik Ahmad Khan, Engr. Ch. Muzaffar Hussain and Engr. Dr. M. Salik Javed for their paper titled as “**Damages to the Right Pocket of Sukkur Barrage and Emergency Restoration Works 2004-2005**”

- **Dr. Mubashir Hassan Medal**

Engr. Sh. Abdul Rasheed for the paper titled as “Housing Issues in Urban Development of Pakistan”

Engr. Husnain Ahmad President Pakistan Engineering Congress profusely welcomed Syed Yousuf Raza Gilani, the Honorable Prime Minister of Pakistan for gracing the Annual Session with his presence despite pressing commitments. He said that it is his profound privilege and unique honour to give an “**overview**” of the oldest and the most prestigious institution of professional engineers which happens to be the catalyst of all professional engineering institutions in this part of the world. It started its journey in the year 1912 under the name of “**Punjab Engineering Congress**”. In 1955 upon unification of all Provinces of the western

wing, it was renamed “**West Pakistan Engineering Congress**”. In 1971, the name was changed to “**Pakistan Engineering Congress**”. It now embraces in its fold over 4000 engineers of myriad disciplines.

He apprised the Honourable Prime Minister that it is “this Engineering Congress from where most of the theories and formulae for the design of channels, barrages, regulating structures and cross drainage structures were presented. Based on the quality research work presented from this forum the largest irrigation network on this earth was indigenously developed by the local irrigation engineers like, **Kennedy, Lacy, Kanwar Sain, S. I. Mehabub, Khawaja Ghafoor, Pir Ibrahim, Sh. Ahmad Hassan and S. S. Kirmani**”.

He went on to say that he felt extremely humbled when he looks “at the names of the luminaries of the profession of engineering, who had the honor of presiding over this body without lowering the stature of others, to mention names of few **The Hon’ble Sir Burt, Col. R. S. Maclagon, D. W. Aikman, Mr. A. S. Montgomery, Col. Walton, Mr. J. D. H Bedford, Sir Arther Griffin, Sir Ganga Ram, Mr. K. B. M. A. Hamid, Mr. S. I. Mahbub, Khan Mohammad Inamullah Khan, Mr. A. M Akhound, Mr. C. A. Hamid, Mr. I. A. S. Bokhari, Dr. Mubashir Hasan and Mr. Shamsul Mulk** are amongst those who had the honor of heading this body”.

Talking about the cherished objectives of the Congress, the President said “the Congress organizes events i.e. **Seminars, Lectures, Symposia, World Water-Day / World Environment-Day events, Technical Tours, International Workshops**. During 71<sup>st</sup> session, alone 32 such events were organized and held”.

President Pakistan Engineering Congress apprised the Honourable Prime Minister that the professional activities of the Congress are not confined to the geographical boundaries of the Country and it is playing a pro-active part on global stage as well.

- Participated in the, International Seminar held in August 2010 at University of Surrey, United Kingdom.
- Participated in **60<sup>th</sup> IEC Meeting of ICID and 5<sup>th</sup> Asian Regional Conference held from 5-11 December 2009 in New Delhi** and got recognition in various work bodies taskforces. Pakistan is a signatory to ICID fold and it is one of the 110 members of ICID.
- Participated in the **61<sup>st</sup> IEC meeting of ICID** at Yogyakarta, Indonesia where the Congress delegation presented a report/video giving district wise presentation of the details of losses of precious lives and assets caused by the un-precedented rain fall that fell in July & August 2010, as a result of which ICID decided to hold an International Workshop on Floods in Pakistan which was held in March 2011 and participated by ICID, PANCID, WWF, Govt of Pakistan. It was at this conference that President Pakistan Engineering Congress was elected as Vice-President of ICID (Asia & Oceania Zone)

Speaking on the role of Congress in promotion of engineering education dissemination of Information, the Prime Minister was apprised that the Congress website shows an incomparable treasure trove of technical knowledge by placing all its publications on its website and that too free of cost, which includes:

- **679-Technical papers on diverse engineering issues in 70-volumes.**
- **269-papers presented at symposiums on various issues in 31-volumes.**
- **617-papers published in the quarterly journal of the Congress.**

He further stated that the Congress has so far awarded 300-scholarships of Rs. 3000/- per month for full four year span of Graduate Engineering Studies on all Pakistan basis, in addition to scholarships of Rs. 10000/- per month for the education of deceased engineers.

President Pakistan Engineering Congress further stated that the Congress has all along been on the forefront of national causes and contributed Rs. 7-million for the effectees of earthquake of October 2005 and Rs. 10 million for Flood Relief in 2010.

Talking about the plight of engineers, President Pakistan Engineering Congress lamented that “all over the world engineers are considered highly valued professionals being back-bone of sustainable economic development. However, in Pakistan the Engineers are a neglected, forgotten community, a victim of the apathy of **Administrative Bureaucracy**. They toil day and night for the development and advancement of the Country but languish in their initial positions for decades. Your honor will be surprised to know that the Engineers of Provincial Departments (they constitute 80% of the total Federal / Provincial strength) do not possess any “**Service**” structure nor they are given automatic “**Time Scale Promotions**” etc., a grave injustice indeed persisting for decades by now”.

### **Honorable Prime Minister Sir!**

May I bring on record that it was Prime Minister Zulfiqar Ali Bhutto (**Shaheed**) an incomparable visionary / statesman and a gem of a person who had the vision and was fully aware of engineers role in a vibrant society, conferred “**Class-I**” on the Engineers, ordered posting of Engineers as Heads of Engineering departments and lot more.

The Late Zulfiqar Ali Bhutto (**Shaheed**) set aside the protocol and advised Engr. Shah Nawaz Khan and Engr. Dr. Mubashir Hasan to arrange a meeting with Dr. Terrazaghaj; a famous Geotechnical Engineer and his team, so that he may discuss with them at personal level solutions for the early Tarbela Dam woes. He ordered that he would like to call on them instead of them being asked to appear for briefing of the great leader.

**Sir!** The administrative bureaucracy had nullified all the reforms introduced by the Late Zulfiqar Ali Bhutto (**Shaheed**) which were admirably continued by Mohtarma Benazir Bhutto (**Shaheed**).

Talking about the ill-conceived procedure for employment of engineers, the President said:-

“In the Federal structure, there is a well-defined system of filling-up the positions. Under the Civil Service Cadre, there is one examination and the would-be applicants upon reaching the desired grades are assigned to the various services of the Federal Government in keeping with a specific laid down criteria. However, in case of Engineering profession, there is no “service cadre” similar to the civil services. A would-be candidate applies to various positions advertised by the various engineering departments. Upon declared successful for more than one post, he opts for the position of his liking. The other position won by him are, therefore, left unfilled. This leads to unemployment, frequent advertisements, waste of time and resources. Prime Minister Sir, I would urge Your Honor to order introduction of an ‘Engineering Cadre’ at the Federal level, as well as advise the Provincial administration to work on these guidelines.”

The President exhorted the Prime Minister to kindly:-

- “May please order immediate re-introduction of the earlier reforms introduced by the first peoples Government.
- May very graciously announce a package of reforms- institution of technical allowance / non-practicing allowance etc. on the lines allowed to Doctors.

- May very kindly advise the Provincial Governments to grant “**Distinct**” **five tier service structure** to the Engineers along with “Time Scale Promotions”, i.e., 50% in BPS-17, 34% in BPS-18, 12% in BPS-19, 3% in BPS-20, and at least 1% in BPS-21 or above (a Congress reference in this respect is already with the Government of Punjab”). The service structure for engineers on the lines of civil services should also be linked to Automatic Time Scale Promotions, i.e., 5 years from BPS-17 to BPS-18, 7 years from BPS-18 to BPS-19, 5 years from BPS-19 to BPS-20 and 5 years from BPS-20 to BPS-21 and Professional Engineers only may please be appointed from BPS-17 to BPS-21 in all Engineering Departments and Organizations”.

The President also touched upon the grave issue of energy deficit, continuing unabated since 2009 with 10-12 hours electricity outages and pleaded for construction of mega dams to successfully come out of the morass as well as to ease problem of water shortages.

Concluding his remarks, the President Pakistan Engineering Congress expressed deepest gratitude to the Honourable Prime Minister of Pakistan, for presiding over this auspicious event and requested to enlighten the engineers’ fraternity with his visionary ideas.

The Chief Guest, the Honorable Syed Yusuf Raza Gilani in his reply to the address of Welcome congratulated the President and Members of Pakistan Engineering Congress for their efforts in assembling under one roof, the finest minds and luminaries of engineering profession and providing him the opportunity to listen to their thought provoking ideas.

Reminiscing about the visionary par excellence ideology of Bhutto (Shaheed) pronounced at the 65th Annual Session of the Congress, he was over whelmed with emotions.

The Chief Guest was highly impressed to learn that Congress was awarding magnanimous scholarships to the graduate engineering students on all Pakistan basis, including children of deceased engineer’s. Imparting of professional computer courses at nominal fees was their fete of achievement; he said that Congress stood with the Government at times of natural disasters was most encouraging. Addressing the audience he felicitated the President of the Congress on his election as Vice-President of the prestigious International Commission on Irrigation and Drainage (ICID) for the year 2011-2013 which was a great honour for Pakistan.

He went on to appreciate the efforts of Pakistan Engineering Congress, for organizing an International Conference on Floods in Pakistan-2010, along with the participation of Pakistan National Committee on Irrigation & Drainage (PANCID) / Federal Flood Commission of Pakistan, ICID and WWF. He appreciated the President (PEC) for assembling best of the minds both from Pakistan and abroad on water resources development.

He complemented Pakistan Engineering Congress for publishing over 1500 valuable technical papers on diverse engineering projects / issues and uploading all this treasure of professional knowledge on its web-site for use free of cost. The Chief Guest agreed that Congress President rightly mentioned the pioneering reforms that were introduced by the first people party Government under the leadership of Mr. Zulfikar Ali Bhutto (Shaheed). He went further on saying that, it pained him to know that the vested interests had rolled back those reforms which were essential for the sustained socio-economic advancement of the country. “We believe”, he said, “No country much less Pakistan can traverse the path of progress / prosperity unless it gives a place of honour to its engineers, a product of educational and professional excellence. The appointment of Engineers as Heads of Engineering Departments / Secretaries of Engineering Departments was no favour to engineers but it was well deserved and rightful place”. He promised to do his best to get rolled back reforms re-introduced and implemented. He felt immense pleasure in announcing grant of technical allowance of Rs. 10,000/- to all engineers as already done in the case of WAPDA on the lines and at par with doctors etc.

“The suggestion of the President of Congress”, he said, “Had come up with a very valuable food for thought to minimize the unemployment amongst the young engineering graduates by creating Engineering Services of Pakistan at Federal as well as at the Provincial levels. This would promote culture of healthy competition amongst engineers and enable governments to fill all vacant positions on merit”. He also supported five tier service structures for engineers as 4-tier promotion systems had already been adopted by Government of Punjab in respect of its educational Cadres. He hoped that Congress would make a comprehensive report for Federal Government in this regard.

With regard to observations on Energy Crisis in President’s address he conceded that the issue had over the years assumed critical and traumatic proportions. “The circumstances had not reached such an impasse overnight”, he said, “But these could be retraced over 63 years of the life of the country. No single government could be put to blame. It could safely be attributed to all regimes alike. Factually speaking there was no use crying over the spilt milk”. He pleaded all, as a nation, to rise to the occasion and make all out efforts to harness all the available sources, and alternatives. Engineers, he said could play a massive role in this respect.

Concluding his remarks, the Prime Minister declared the Annual Session open. Thereafter, the Honorable Prime Minister conferred “*Lifetime Achievement Awards*” to the distinct engineers who were the icons of their fields. The Prime Minister also conferred “*Outstanding Performance Awards*” to the leading engineers for their extraordinary contribution to the engineering profession in the 71<sup>st</sup> Session of PEC, at the occasion.

### **Lifetime Achievement Awards**

1. Engr. Dr. Ch. Mazhar Ali, Lahore
2. Engr. M. Azam Baloch, Quetta
3. Engr. Muzammal Hussain Qureshi, Karachi
4. Engr. Abdul Razik Khan, Quetta
5. Engr. Shah Nawaz Khan, Peshawar
6. Engr. Dr. Mubashir Hassan, Lahore

### **Outstanding Performance Awards**

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|-----------------------------|--|
| 1. Engr. Husnain Ahmad      | President PEC/Vice President – ICID    |
| 2. Engr. Ch. Ghulam Hussain | Vice President/Secretary PEC           |
| 3. Engr. Iftikhar Ahmad     | Member Executive Council/Treasurer PEC |

On the second day of the session, a symposium on the topic of “Changing Environmental Patterns and its Impacts with Special Focus on Pakistan” was 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.

Engr. R. K. Anver, Vice-President/Convener Symposium Committee presented the Key Note Address. Dwelling on the issues, he remarked;

“One of the solutions to mitigate the abnormal temperature rise causing melting of glaciers, sea warming, floods and droughts, is to go in for green/renewable energy e.g. from hydel, winds, sea waves and solar system etc. to attenuate the deleterious emissions. The latest finding is that in Himalayas, now called the “Third Pole”, melting is happening faster than elsewhere on the planet. Its high conservation areas in India, Pakistan, Nepal, Bhutan and China are infact prodigious water tanks for Asia – origin of

the mightiest river systems of the world e.g. Indus, Ganges, Brahmaputra and Mekong etc. benefiting, over three billion people i.e almost half of the world's population. Fast melting of ice changes the climate. Rising temperature affects size of the glaciers melting quickly which increase the run off but reduces the frozen storage. Thus, melting of the glaciers is the most massive threat to the food security, than ever envisioned before.”

He further said, “The Inter-Governmental Panel on Climate Change (IPCC) projects that the global mean temperature may increase between 1.4<sup>0</sup> to 5.8<sup>0</sup> C before the present century ends. This unprecedented increase can have severe impacts on the global hydrological system and consequently on ecosystems. In Pakistan climate changes raises concerns with its tremendous social, environmental and economic impacts. We are frequently exposed to natural perils like floods, droughts and cyclones.”

Some of the recommendations made by the panel of experts are as under;

- In order to reduce GHG's emissions and deal with the changing climate, there should be promotion of renewable energy sources.
- Empowering communities and local stakeholders so that they participate actively in vulnerability assessment and implementation of adaptation.
- Global adaptation under the United Nations Framework Convention on Climate Change is required i.e. strengthening mechanisms and support for proactive adaptation under the convention by facilitating comprehensive national strategies and committing reliable funding for high priority implementation projects.
- Reducing reliance on fossil fuels for energy is the essential factor for controlling climate change. Shifting from fossil fuels to renewable energy resources such as solar energy and hydropower that do not emit CO<sub>2</sub> will help stem climate change.
- Watershed management in the catchment of Indus and its tributaries which on the one hand will result in reduction of greenhouse gases and will retard the flash floods and siltation of the reservoirs.
- Work on three or more storages should be started simultaneously. There is no dearth of experienced engineers in the country in dams construction technology whose services be requisitioned if WAPDA feels any deficiency in the availability of experts on dam construction.

The third and fourth days were the continuation of the technical session.

On the fifth day, as a regular feature, AGM was held where elections for the office bearers of the ensuing Session were held.

27 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.



Engr. Husnain Ahmad, President Pakistan Engineering Congress (71<sup>st</sup> Annual Session) receiving the Honourable Chief Guest Syed Yousaf Raza Gillani, Prime Minister of Pakistan.



**Engr. Husnain Ahmad** President PEC introducing the Governing Body of the Congress (71<sup>st</sup> Session) to the **Honourable Prime Minister Syed Yousaf Raza Gillani**



A Group Photo of the Governing Body of Pakistan Engineering Congress (71<sup>st</sup> Session)



The scene at the time of playing of National Anthem

*From left:* **Dr. Babar Awan**, Federal Minister for Law, Justice and Parliamentary Affairs of Pakistan, **Engr. Ch. Ghulam Hussain** Vice-President / Secretary PEC (71<sup>st</sup> Session), **Engr. Husnain Ahmad** President PEC (71<sup>st</sup> Session), **Honourable Prime Minister**, Islamic Republic of Pakistan, **Syed Yousaf Raza Gillani** and **Sardar Muhammad Latif Khosa**, Governor Punjab



**The Honourable Prime Minister Syed Yousaf Raza Gillani** presenting the Inaugural Address at the eve of **71<sup>st</sup> Annual Session** of Pakistan Engineering Congress



**Engr. Husnain Ahmad** President PEC (71<sup>st</sup> Session) presenting shield to the Honourable Prime Minister **Syed Yousaf Raza Gillani**, Chief Guest at the Inaugural Session of Pakistan Engineering Congress