

PAKISTAN ENGINEERING CONGRESS 66TH ANNUAL SESSION
THE EXECUTIVE COUNCIL FOR THE 66TH SESSION (1994-95)

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Engr. Mazhar Ali

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Engr. Mazhar Ali,
President, 66th Session (1994-95)
Pakistan Engineering Congress

ENGR. MAZHAR ALI
PRESIDENT, 66th Session (1994-95)
PAKISTAN ENGINEERING CONGRESS

Engr. Mazhar Ali, the President for the 66th Session, is a Gold Medalist Civil Engineering Graduate from the Punjab University, a Graduate of Institute of Mechanical Engineers, London (Honorable mention) and a Fellow of the Institution of Engineers, Pakistan.

Endowed with brilliant academic record, Engr. Mazhar Ali was inducted into the coveted Class-1 Punjab Engineering Service on 28.6.1952 in the Punjab Irrigation Department. He served the province for 20 years on various challenging assignments in the field of irrigation, drainage and water resources development and planning. He represented the province on various committees on the critical interprovincial river water rights issue.

Deeply impressed by his performance, the Federal Government selected him to work as Special Assistant to the Federal Minister for Finance and Planning where he was responsible for evolving significant national policy decisions in respect of major economic and administrative issues. Later he was charged with the chairmanship of the State Cement Corporation of Pakistan in 1974 and was instrumental for addition of five new cement plants which more than doubled the cement manufacturing capacity in the country.

To gainfully avail of his experience and insight in the Water Resources Development, the Government since 1968, opted to associate him on four Committees / Commissions on inter-provincial apportionment of River Water. For the last 14 years he has been working as Advisor to the Government of the Punjab on Water Apportionment and other major development issues. He was Technical Member from Punjab on the Inter-provincial committee set up by the Prime Minister on January 12, 1991 for resolving the sensitive River Waters Apportionment issue. His competence, Integrity, wide economic experience combined with deep insight in the irrigation requirements Of River Water by different provinces vis-a-vis political compulsions became Instrumental in the signing of historic accord on apportionment of waters which was confirmed by Council of Common Interest in March, 1991.

Authors of large number of publications, reports and papers, Engr. Mazhar Ali; was awarded Congress and Mubashir Hasan Gold Medals on two of his papers having been adjudged as the best technical papers. He is a member of the Syndicate and of the Research Advisory Board of the Punjab University of Engineering & Technology. In addition to various engineering fields, he has acquired a breadth of vision, encompassing economic, social, industrial and administrative fields and he has made his contributions at the highest level.

ADDRESS

BY

ENGR. MAZHAR ALI

Mohtarama Benazir Bhutto,
Prime Minister of the Islamic Republic of Pakistan
Honorable Chief Minister
Honorable Ministers
Worthy Guests
Distinguished Delegates
Fellow Engineers
Ladies & Gentlemen
Assalam-o-Alaikum

On the auspicious occasion of the 66th Annual Convention of Pakistan Engineering Congress, we feel immensely privileged and honoured to have you amongst us today our Prime Minister as the Chief Guest. We highly appreciate your kind gesture. Madam Prime Minister, that in spite of your very busy schedule, you have so graciously acceded to our request to inaugurate this Convention. This is undoubtedly a confirmation of your deep interest in promoting engineering talent for development of Pakistan.

Engineering Congress is the oldest body of Professional Engineers which was established 83 years ago. It is engaged in the advancement of engineering profession and its role is multi-disciplinary. We arrange Technical Sessions, Seminars, Workshops and lectures on important current engineering problems and arrange technical study tours of large projects. Our 3000 members are qualified engineers and experts in different disciplines. Our primary objective is to promote engineering knowledge and practices to help the engineers for providing better service to the people, promote self-reliance and ethical standards for the engineering community, and provide a forum for discussing and investigating different technical and management problems.

Pakistan Engineering Congress is a non-political but highly professional Non—Governmental Organization (NGO) and its activities are diverted solely to the advancement of engineering knowledge and practice. It is a non-profit charitable organization and its office holders are all voluntary honorary workers. Government and many other organizations have been giving substantial support to the Congress. The contributions made from the Congress platform in the fields of engineering science and technology have won world-wide recognition. Some of the important advances in the science of irrigation engineering were first presented in the earlier days by this Congress in the form of scientific papers.

All the professional papers, presented in different disciplines of engineering at the Annual Sessions, seminars, workshops, lecture meetings, held from time to time, are available with the Congress Head Office in its library for reference and consultation. The value of each paper lies in the wealth of personal experience and research that may be the result of life long involvement of the author in his particular field of engineering.

Alleviation of poverty and improving the lot of the common man, both in the rural and urban areas, is an important part of your manifesto. The zeal with which your Government has launched the Social Action Programme and major development programmes in different fields in

order to bring happiness and prosperity to the masses is praise worthy. Modernization and Massive expansion of the Telecom network to the remotest nooks and corners of the country rising to about 3 millions lines, undertaking huge national drainage projects, construction of gigantic Ghazi Brotha Hydropower Project, Construction of 90 mile long Chashma Right Bank Irrigation Canal Project, Construction of Motorway sections. Farm to Market roads are just a few examples to elaborate your interest in the engineering fields. We assure you that the Engineering Community will play its role and do its best to execute and to take these projects and programmes to completion to fully support your laudable efforts. We are conscious that it is the engineering community which plays the key role in expeditious and economical execution of these schemes when they are assigned the responsibility and authority to do so.

Allow me to mention, Madam Prime Minister, that under the lead given by the Government led by your great father, Quaid—e-Awam, Zulfiqar Ali Bhutto, the engineering profession in Pakistan had started breathing in the freshness of a new atmosphere. New avenues in the field of engineering had been opened up. The Administrative Reforms introduced by him recognized the Pakistani compulsion that the top posts of civil servants in the Government could not possibly be reserved for a solitary cadre. The economy of Pakistan, and the engineers greatly benefitted from those Administrative Reforms. A number of them occupied high posts in the Secretariat and several Technical Ministries and Corporations were headed by Engineer Secretaries and Chief Executives.

It is unfortunate that during the successive Governments, the same class of civil servants once again started pushing the professionals to the secondary positions. The engineers, who are responsible for bringing about healthy changes in various fields of development, may it be water resources, industry, rail, road, bridges, airports, highways, planning, designing and construction, have gradually been deprived of holding positions of high slot, in the Centre, in the provinces, and in the Development Corporations. The deteriorating situation. Madam Prime Minister, needs your special attention, so that we follow the path shown to us by the Quaid-e-Awam. Your government would be greatly strengthened by making the engineers an integral part of the government machinery and by placing them at policy making levels of technical Ministries, Departments and Corporations in the Federal and Provincial Governments. It- may be added that the engineering services at the federal as well as provincial levels do not have a proper service structure, and upward movements are frustratingly slow. The engineers have been denied even the recent changes in education and health services in Punjab. Automatic scale promotions in grade structure should be prescribed, and assignments to senior administrative jobs may become the instrument of policy.

Madam Prime Minister, this is an age of scientific development and rapid advancements in engineering science and technology. This is a space age, this is an age of nuclear energy, high speed trains, high-rise buildings, motorways and flyovers, major dams and hydroelectric generation and information technology. You have rightly given it as the catch word for the year 1996. Advances in engineering and technology are bringing together the developed countries into virtually a single global economy. In the process, the poor or the developing countries, which do not have an access to its knowledge and technology, are being slowly pushed out of the mainstream. In some of these fields, however, a number of third world countries are now trying to make encouraging progress. Major efforts are required to survive in the highly competitive world, to achieve self reliance for our political and economic freedom, and to achieve self sufficiency in food production, and major technical areas. God has blessed Pakistan with excellent resources of land, water and minerals. We has excellent climate which makes it possible to grow crops round the year. Our people are patriotic and hard working. We have engineers, scientists and technicians who are talented. Given the opportunity, they make their mark of excellence. They raise the Pakistan flag high and flying any where in the world.

Madam Prime Minister, you have allocated highest priority to power generation. Several MOUs were signed for thermal power generation and work on some of them is already underway. A start has also been made on hydropower generation by undertaking Ghazi Barotha and Chashma Projects. A very large hydropower potential of above 30,000 megawatt still remains to be exploited to give Pakistan cheap and clean power from our renewable water resources.

Our population is rapidly growing, but no new river storages have been built during the last two decades. After the implementation of the Indus Waters Treaty 1960 we find that the available irrigation supplies from rivers are constantly decreasing. Tarbela and Mangla Dams are constantly losing storage capacity due to regular flow of natural silt in their lakes. The storage capacity at these dams will reduce from the present 15.7 million acre feet (MAF) to 10.7 MAF by the year 2020 and irrigation water available for Rabi and Kharif sowings would be drastically reduced. The existing limited storages are losing their capacity and are fast depleting due to situation. The water availability per capita is dangerously reducing. Urgent measures are required to ward off impending famine conditions and to control the devastating floods which inflict severe damages on us periodically. The canal irrigated lands in Pakistan are presently about 33 million acres. By conserving the surplus river supplies, the irrigated land base can be expanded by about 15 million acres of excellent new lands in the most backward areas in all the provinces. An early start on construction of a number of storages is required to make optimum use of our precious river waters, to make the deserts blown and to achieve self-sufficiency and even a surplus in major food and agriculture crops.

Regarding Kalabagh Dam, Madam Prime Minister, kindly let me revert to this vital National Project. The Congress feels that this Project is as important as defence of the country and is an extreme necessity for our survival and for the survival of the posterity to which our present generation is answerable. There should not be luke warm treatment to construction of Kalabagh Dam, the very life-line of country. A national consensus was developed in 1991, and it was hoped that the Water Accord would usher in an era of rapid river resource development. This has also fallen flat as subsequent political developments and delays in essential follow-up actions have denied us the most needed fruit.

The Government of Pakistan is considering proposals to privatize and commercialize canal irrigation systems. There is increasingly severe pressure from the International Financing Agencies like the World Bank and the Asian Development Bank through their loan covenants. The move is being strongly opposed and resisted by the Provincial Irrigation Departments and the engineering bodies like Pakistan Engineering Congress and the Pakistan Engineering Council. In this regard the World Bank requires Pakistan to make massive administrative and legislative changes to assign the control and management of irrigation canals, and supply and distribution of irrigation water from Government Departments to private sector. Conversion of Provincial Irrigation Departments into Autonomous Authorities and Area Boards may improve the emoluments and service conditions of their functionaries at the cost of the farmers, but it would not increase irrigation water availability. It would certainly lead to manifold increases in water rates, imposing a crippling burden on Pakistan's agriculture, and significantly disturbing the rural society with very low per capita income.

Madam Prime Minister, Local Construction Industry ranks next to Agriculture and manufacturing in its contributions to GDP and employment. This industry has not developed and faces serious problems due to vested interests of foreign loan giving Institutions, lack of essential support by the government, unhelpful State Bank regulations and indifferent attitude of local banks. Government has declared Construction as Industry, but this policy has not been implemented in practice due to lack of essential supporting directions and regulations to the banks and insurance companies. Due to partisan regulations and directives of foreign funding agencies,

about 90 per cent share of big contracts financed wholly or partly by foreign loans goes to foreign construction companies. These companies pick up bulk of the profits and inflate project costs. They also acquire and retain top management and technical expertise with themselves. Pakistan is the loser due to heavy debt liability, and increased dependence on foreign expertise and technology. Pakistani companies work in subservient position as sub-contractors, with insignificant transfer of technology or saving of cost. The growing practice of turnkey contracts to foreign companies is denying the benefits of high technology and management experience to Pakistanis and is a serious set-back to growth of Local Construction Industry. Construction Industry has great export potential, but requires political, institutional and financial support from the Government. We have before us the examples of South Korea, China, Japan and many - other Western countries policies of which can be advantageously followed.

Madam Prime Minister, we deeply appreciate your foresight for launching a very ambitious Computer Literacy Programme to spread the knowledge of computer science among the youth of the country to enable them to enter the 21st century with pride and professional skill. In view of critical role of computer in the fast moving world, I am happy to say that the Pakistan Engineering Congress has established a most modern Computer Centre, with generous support from the President of Pakistan, Sardar Farooq Ahmad Khan Leghari, who very kindly donated fifteen computers for our Computer Centre in July, 1994 while inaugurating our last Annual Convention. We have started imparting training particularly to the young engineers and engineering students, and also to educated youth. We are planning to expand these facilities substantially in the near future.

I am happy to mention that the Congress took the initiative to arrange a high—level meeting of the country's three premier engineering bodies: i.e. The Pakistan Engineering Council, the Institution of Engineers and the Pakistan Engineering Congress. Senior engineers from the three Institutions met in the Congress Headquarters Building in Lahore in June last year. It was a unique occasion for the galaxy of engineers to join in deliberations together to discuss major issues relating to our economy and to the engineering community. It was unanimously decided to establish an Engineering Development and Advisory Council to promote better mutual understanding to ensure constant liaison and common working among various engineering bodies.

Madam Prime Minister, we have invited engineers and professional experts from all over Pakistan to participate in this 4-day Convention. Technical papers of high standard covering different engineering disciplines will be presented and debated. Recommendations of the Seminar shall be forwarded to the Government for consideration.

I have spoken far too long, and your gracious presence amongst us and your keenness to revitalize Pakistan's economy and administration, has encouraged me to raise some sensitive issues. I reiterate the will and resolve of the engineers as a community and of the Engineering Congress to support you fully in your efforts, in the war against poverty and injustice, and in making Pakistan a strong and prosperous country. I request you now, Madam Prime Minister, to inaugurate the 66th Annual Session of Pakistan Engineering Congress, and to declare the proceedings open.

PAKISTAN ENGINEERING CONGRESS 67TH ANNUAL SESSION

EXECUTIVE COUNCIL FOR THE 67TH SESSION (1996-97)

PRESIDENT

Engr. Khalid Latif Khawaja

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| 8. Engr. Ch. Muhammad Shafiq | |

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| 6. Engr. Mian Fazal Ahmad | Chief Editor, Engg. News |

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| 24. Engr. Qasim Shafi | 48. Engr. Usman Akram |



Engr. Khalid Latif Khawaja,
President 67th Session (1996-97)
Pakistan Engineering Congress

ENGR. KHALID LATIF KHAWAJA
PRESIDENT 67th Session (1996-97)
PAKISTAN ENGINEERING CONGRESS

Engr. Khalid Latif Khawaja was recently elected as President of the 67th session of the Pakistan Engineering Congress. He has outstanding record of professional performance.

Engr. Khalid Latif Khawaja has more than thirty five years of rich professional experience. He graduated in Civil Engineering in 1961 from Govt. College of Engineering & Technology, Lahore. He also did his Post-graduation in Structural Design in 1980-81 from University of New Castle Upon Tyne, England. He is life member of Pakistan Engineering Congress, member Institution of Engineers Pakistan and member Pakistan Engineering Council.

Engr. Khalid Latif Khawaja worked for two years with M/s Tipton and Kulmbock Consultants for Indus Basin Project, before joining Punjab Communication and Works Department in October, 1963. Presently he is working as Director, Building Research Station, Lahore.

Engr. Khawaja had been working on various challenging jobs in the fields of Buildings and Highways. He worked as Resident Engineer on an Express Highway Project in Southern Saudia Arabia from 1982 to 1984 and was adjudged as the most practical Resident Engineer in Saudi Arabia for the year 1984. During the period 1988-89, he served as a Chief Resident Engineer for a Highway Project in North Yeman.

Author of a number of publications, technical papers and reports on Buildings / Highways, Engr. Khawaja has deep insight in engineering and economies fields. He is known and respected for his untiring efforts towards the upgradation of engineering community. As a Vice President of Pakistan Federation of Engineering Associations for a number of years and the President of Punjab. Buildings and Highways Welfare Association from 1989, till to-date, he had been advocating boldly the cause of upgrading and restoring dignity and respect for the engineers.

Being one of the pioneers of the proposal of five tier service structure for engineers in the Federal / Provincial Government Services, he is striving hard to achieve its implementation even from the platform of the Pakistan Engineering Congress.

ADDRESS

BY

ENGR. KHALID LATIF KHAWAJA

Your Excellency, Mr. Muhammad Rafiq Tarar, President Islamic Republic of Pakistan

Honourable Mr. Shahid Hamid, Governor of the Punjab,

Respected Mian Muhammad Shahbaz Sharif, Chief Minister of the Punjab,

Ministers, Senators, M.N.A's / M.P.A's

Ladies and Gentlemen !

Asslam-o-Alaikam!

1. It is a great honour for Pakistan Engineering Congress and a proud privilege for me to welcome you all to the 67th Annual Session of the Pakistan Engineering Congress. We are specially grateful to you, Mr. President, for sparing time out of your extremely busy schedule to grace this function. This indeed is a confirmation of your deep interest in maintaining personal interest / communication with the engineers of Pakistan. This also shows your keen interest in the promotion of science and technology for the overall development of the country. We greatly value your this opportunity of presenting our views on matters of vital national importance before your kind self.
2. Mr. President, Sir, Pakistan Engineering Congress, established in 1912, is the oldest professional body of the Sub-Continent. Major objectives of the Congress are development, propagation and promotion of engineering knowledge and practices for the advancement of the engineering profession and bolstering their efforts for national development. Selected technical papers of the highest standards, on different subjects of national and global importance, are presented and discussed during its annual sessions and on various other occasions. Symposia on important engineering problems are also held during the annual and the mid-term sessions and resulting recommendations are sent to the Government for consideration. A large number of papers presented at the Congress platform have won world-wide recognition and acclaim. Many major advances made in the fields of various engineering disciplines, were first presented at the platform of this Congress. Over the past 85 years as many as 682 technical papers have been presented and discussed. Annual publications of the Congress constitute a valuable store house of engineering knowledge. During this session, which you have very kindly consented to inaugurate, thirty seven technical papers are being-presented covering various important subjects. A symposium on the subject of "Environmental Protection and Resource Conservation" is also being held as part of this Annual Session. Seminars on several important technical issues were held during the years 1997 and 1998. "Engineering News", a quarterly journal of the Pakistan Engineering Congress is being regularly published since 1958. Proceedings of all the technical papers and the Quarterly Journal are distributed free of cost to various institutions, engineering universities and to the libraries, local as well as foreign to further the cause of development, exchange and dissemination of available technical knowledge of a broad spectrum over the largest possible area.

Sir, "Pakistan Engineering Congress" is a non-profit and non-governmental professional Organization and its activities are devoted solely to the promotion and advancement of engineering knowledge and practices. Its office holders are all honorary workers.

3. Mr. President, Sir, let me congratulate the Government of Pakistan, the people at large and specially the engineers and scientists on the successful launching of 1500 km range, entirely indigenously developed, Ghauri missile. The successful launching of this missile is a tribute to the skill, dedication and hard work of engineers and scientists of Pakistan. Their work shows that given the right atmosphere and infrastructure they are capable of achieving highest standards.
4. Sir, during our last Annual Session held in October 1996, we arranged a Seminar on Impact of Power Policies on Social and Productive Sectors". It was considered expedient then and duly recommended that hydel power generation, and not the thermal one be adopted as a long- term policy. Electricity charges have registered unprecedented high indices and are further spiralling. Mounting power bills as a result have adversely affected our industrial and agricultural sectors. The Government is considering ways and means to amend the Thermal Power agreements which are causing rapid escalation in the power rates and have seriously affected WAPDA's functioning and its financial health. We fully support the Government in its efforts to renegotiate the provisions of these agreements and assure our full assistance in this regard. Sir, we strongly feel that there should be some sort of constitutional safeguards against signing agreements 'detrimental to the national interests.
5. Mr. President Sir, our population is growing rapidly and our needs for food and other agricultural products have greatly increased. God has blessed Pakistan with lands, large rivers, excellent climate and hard- working people yet, tragetic as it is, we continue to remain heavy importers of wheat, edible oils, tea and other commodities. While famine-like conditions stare us in the face, we have virtually clamped down on further development of our river water resources. Within another five to ten years, shortage of canal irrigation supplies would become serious. Historic WATER ACCORD signed between the Provinces, way back ' in 1991 and aimed at rapid development of our water and power resources, still remains to be implemented. About forty million acre-feet of precious river water continues to go waste every year to the sea causing devastation and miseries on the way. We must harness this surplus water by constructing multi-purpose storage dams at all available sites. It would improve and increase canal irrigated areas to achieve not only autarky in food and other agricultural products, but would also generate cheap hydel-power, control devastating floods and create millions of new jobs all over the country.

It is unfortunate that the plan for harnessing water resources, through more storage dams, has fallen a victim to political expediencies particularly "Kalabagh Dam". Construction of Kalabagh Dam is a fore-runner for many more dams. There was a complete consensus on building this technically viable dam till 1991. However, as the time passed, the issue got politicised. Sir, it no longer remains a technical much less a political issue, but has assumed proportions of such a magnitude which put our very survival at stake and brought to bear a challenge to political leadership. We urge upon and appeal the political leadership to the issue of storage dams which cannot brook any further delay as **history and posterity will never forgive those responsible for the now missed opportunities.**

6. Mr. President, the poor and sad state of our national economy and heavy reliance on debts is reflected in our national budgets. Major portion of our total revenues is eroded

by foreign debt-servicing. Our foreign debts, utilized in a large number of cases for non-productive and lower-priority activities, continue mounting without suitably strengthening our repaying capacity. Engineers have time and again been expressing their apprehensions and concern to the powers-that-be and policy framers, of the dire consequences of heavy dependence on foreign loans, so-called foreign grants for policy and organizational studies, and influx of foreign consultants nay controllers, in every conceivable field. Total dependence on foreign loans and expertise can hardly lead to any progress and advancement worth the name in any country. Our repeated requests, warnings, and even protests have generally invited frowns from the corridors of power, charges of inefficiency and corruption and almost complete exclusion from the closed power circles around the Chief Executives at the Centre and the Provinces and the sensitive ministries. Even in major technical and engineering corporations and ministries the engineers have been pushed away from top jobs. The engineering organizations like Telecom Company, WAPDA Federal and Provincial Engineering Departments have been the target of organized adverse publicity and witch-hunting. The technical organizations have virtually been left with no financial, administrative and even technical powers and freedom to manage their own affairs, and all lines of command stand annihilated.

A policy decision was taken' in 1989 to declare at least seven federal ministries as technical necessarily to be headed by engineers. However, the generalist bureaucracy has effectively thwarted the implementation of this decision and technical experts have gradually been removed from the key positions. Continued appointments of non-engineers against top-engineering posts have negated the policy of supporting promotion of science and technology. Rules are being modified to accommodate non-engineers in key technical jobs. Situation in the provinces is even worse. This trend of de-professionalization of highly technical jobs in the public sector, both at the federal and provincial levels, has already lead to disastrous results. In view of the importance and sensitiveness of the matter, I take this opportunity to request Your Excellency to give this matter your gracious thought. Mr. President, there may be some genuine as well as engineered charges of inefficiency and corruption against a section of engineers but the hard fact remains that no country can develop technologically without the whole-hearted and dedicated support of the engineers and scientists. It is only possible if their genuine problems are solved and they are given the right status in the society.

7. Mr. President Sir, we have been stressing that without a properly organized indigenous engineering consultancy and construction industry with in-built checks and balances for quality assurance, cost and time control, we will not be able, to-build our technological skills and construction capacity to undertake major development projects. Self-reliance is not only the demand of the engineering profession, but it is the compelling requirement for the country to develop rapidly. This can be achieved by encouraging the Pakistan construction industry in technical, managerial and financial fields. There is a need to introduce a minimum Pakistani component for any construction contract awarded to a foreign company. We have a wealth of experienced and competent Pakistani engineers, managers and financial experts who are capable of performing to the highest standards. We are conscious of the compulsions and conditions imposed by foreign lending agencies but inspite of the imposed constraints, there is an ample room to promote self-reliance leading to a meaningfully efficient economy. Our present policies are leading to mounting debts, erosion of economy and discouragement and resultant flight / drain of the best talent. We would respectfully submit that with your deep insight into our socio-economic and political issue in the country, you may recommend to the Government to

set-up a suitable machinery to reverse the growing trend of reliance on foreign resources in consultancy and construction sectors. Construction was declared as an industry a few years ago but no follow-up decisions were taken to get this policy implemented. We request your assistance through taking-up this matter with the Government so that all back-up support required for any industry is made available to the construction industry as well.

8. Sir, a number of cadres in the Government service structure such as doctors, lecturers and some others have recently been provided with improved service structures. The engineers, however, are being denied the same. Promotions in engineering departments are blocked for many years. Graduate engineers entering the service, in Grade-17, are not promoted to next grade in most of the cases even after sixteen years of service. Finding no place, the best engineering talent is leaving Pakistan in disgust and frustration. The Pakistan Engineering Congress has been advocating for better service conditions and structure for the engineers in Government services at least at par with other services. A five-tier service structure plan was proposed by the Congress and was sent to the Government. We expect that you will use your good offices to impress upon the Federal and Provincial Governments to implement the five tier service structure for engineers as has been done in the case of some other professions.
9. Another important sector which requires a high national priority is the Transport and Communication Sector. The nation is happy over the golden jubilee gift given to it in the shape of the Motor-way from Lahore to Islamabad and its further extension to Peshawar which is in hand. However, Mr. President, Sir, our country has an age-old and deteriorated network of railways and highways. As railways and highways are basically meant to serve the same purpose, there is a need to prepare a Master Plan for integrated development of the two sectors. There is a need to have better coordination between the Planning Commission, Pakistan Railways, National Highway Authority and Provincial Highways Departments. Because of the importance of better transport facilities for industrial and economic development, farm-to-market roads, inter city and inter-Provincial highways and the railway should receive higher sectoral allocations in the Annual Development Programmes.
10. Research and Development is an other area which has been neglected for too long. We are spending hardly 0.15% of our GDP on Research and Development whereas in developed countries, the ratio is more than 1.5% of GDP. Lack of support to Research and Development is, unfortunately, widening technological gap between the developed and developing countries. There is an urgent need to accelerate our efforts in Research & Development by providing extra budgetary allocations and by reorganizing-the research bodies which are spending major parts of their allocations on salaries of staff only.
11. Sir, you may very kindly recall our meeting with your honour when a delegation of the Pakistan Engineering Congress called upon you in February this year and had briefed yourself about the plight of unemployed engineers of the country. Number of engineers working in a country is a useful indicator of the rate of its economic growth. In Pakistan, we have one engineer for a population of over 7,000 people whereas in the developed countries the ratio is one for two hundred. The irony of the situation is that inspite of such a low ratio in Pakistan, about 50% of the engineers, qualifying from the universities each year, remain unemployed. An unemployed engineer is not only a problem of personal inconvenience, to say it mildly, it tantamount to a national tragedy. It shows that not only considerable financial cost in educating an engineer has gone waste, but a resource

- potential remains unused. We know that unemployment has taken a national dimension, and to overcome it is a matter of high priority with the present Government, but as employment of an engineer adds to the national production, this issue warrants highest priority. Sir, in this context, we would request the Government to promulgate an ordinance requiring every industry, contractor and consulting firm to employ a suitable number of probationary engineers at least for one year on the pattern of house-jobs for doctors. Provision for such appointments could be made obligatory for them to quote in their bids when seeking award of local or foreign aided works.
12. Mr. President, Sir, I would not have liked to bring in a subject relating to tax here but availing the opportunity of your benign presence, I wish to bring to your notice that the proceeds from rented part of our building (one property only), are being purely utilized for the promotion of professional activities and research in national interest. Unfortunately the Pakistan Engineering Congress property is being subjected to wealth tax by the Wealth Tax Authorities. As Pakistan Engineering Congress is a nonprofit and educational organization the Congress pleads you to use your good offices to ask the concerned authorities to exempt the Congress building from levy of any tax. This exemption has already been afforded to the sister bodies like Institution of Engineers, Pakistan Medical Association Rawalpindi and other similar Institutions.
 13. Sir, the President of Islamic Republic of Pakistan had donated computers to the Congress in July, 1994 for establishing a Computer Center. Since then the Congress, through this center, has been imparting training to young engineers, engineering students and also to the youth with general education. More than one thousand students have been imparted computer knowledge in ten different courses of two months duration during 1997 alone at one third the tuition fee of that being charged by even Government institutions. The Pakistan Engineering Congress provides free accommodation and electricity to the center. The 67th Executive Council of the Congress has decided to establish a College of Computer Sciences for teaching for BCS and MCS degrees. The Congress strongly feels that better but cheaper education is the need of the day. Through the proposed College of Computer Sciences of the Congress, we intend to impart computer education with tuition fee which would be within reach of a common man and to allow even 50% rebate on fee to poor but deserving students. The charges of these degree courses, as per our Feasibility study, shall not be more than Rs. 8000/- per semester of four months as against Rs. 35,000/- being charged by almost all such Institutions. The Pakistan Engineering Congress intends to provide free accommodation, electricity and part of faculty salaries to the centre.
 14. We are fortunate to have in your person Mr. President, a God- fearing jurist, a right thinker and intellectual endowed with the spirit for providing support to the just causes of making Pakistan a self-reliant, strong and prosperous Country, a dream of the great Quaid and father of the Nation which still remains unfulfilled.
 15. In the end before I close my presentation, I thank your kind-self Sir, and all other distinguished guests for joining us on this occasion and bearing with me so long.
 16. I now request you, Mr. President to kindly inaugurate the 67th Annual Session of the Pakistan Engineering Congress.