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The Newsletter of the Institution of Electrical and Electronics Engineers Pakistan



**THE INSTITUTION OF ELECTRICAL AND  
ELECTRONICS ENGINEERS PAKISTAN**

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## **Glimpses of the Seminar on “Reveiw of Power Policy**





# THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS PAKISTAN

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**Vice President**  
Engr. R.A Baig

**Vice President (S)**  
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**Disseminate Technical  
Knowledge**  
★  
**Conserve Electricity**

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## Editorial

*The objective of the newsletter of IEEEEP is to update the members of the institution about the activities arranged by the central council and local centers in Pakistan.*

*This newsletter is also containing a lot of activities and events during the recent past. Starting with the minutes of 353<sup>rd</sup> **Central Council** meeting which also includes the minutes of 189<sup>th</sup> **admin and finance** committee meeting and minutes of 178<sup>th</sup> **membership committee** meeting. This issue also provides the detail of a seminar on "Review of power policy".*

*The activities of Lahore Local Center (LLC) is also elaborated in this issue, which includes the campaign for membership, holding lectures on "Application of quality products in engineering sector" and holding multi topic symposium in collaboration with **University of Central Punjab**.*

*At the end as usual excerpts from history 1976 is also provided to throw light on the history of IEEEEP.*

*Editor*

## Minutes of Central Council Meeting



THE INSTITUTE OF  
ELECTRICAL & ELECTRONICS  
ENGINEERS PAKISTAN

IEEEEP-350/HQ/2009

Dated: 22.5.2009

Minutes of the 353<sup>rd</sup> central council meeting held on 20<sup>th</sup> April, 2009 at 3.00 pm in the IEEEEP HQ office, Lahore.

### Present

The list of Participants is available as Annex-1

#### 1. Recitation from Holy Quran.

The proceedings commenced with recitation of verses from the Holy Quran by Engr. Mian Fazal Ahmed

#### 2. Confirmation of minutes of 352<sup>nd</sup> of Central Council Meeting

The minutes of Central Council meeting were confirmed

#### 3. Progress on minutes of the Meeting of Central Council

The Council reviewed the progress of minutes of 352<sup>nd</sup> meeting. Engr. Shahid Aslam and Engr. Mian Fazal Ahmad expressed their views that the progress of all outstanding issues needs to be reviewed.

#### 4. Minutes of 189<sup>th</sup> Admn. Finance Committee Meeting were discussed and decisions were taken as follows:

##### a. Estimates of Rs. 90,000/- on Seepage & Renovation of HQ Office.

On a query on the break-up of expenditure, It was told that the contractor had yet not given the break up of estimates of Rs. 90,000/- Manager admn. was advised to get detailed estimate from the contractor to proceed further.

##### b. Medical Treatment case of Mr. Khadim Hussain (Journal Assistant)

The case was discussed in detail, Engr. Shahid Aslam was assigned the duty to look into the case in detail on priority and put up report to the Council for consideration.

##### c. Request of Accountant Mr. Hassan Abbas for increase in pay.

The Council discussed the matter and approved increase in his pay to Rs. 5,000/- per month w.e.f.

01.05.2009. It was desired that the Accountant should be available for at least seven days to the Institution.

#### d. IEEEEP Life Membership/ Subscription Fee.

The Council deliberated the recommendations of Admn. & Finance Committee that the Life Membership Fee be increased from present Rs.2,900/- to Rs.10,000/-. Most participants showed their concern, that such high increase in membership fee is bound to discourage new Membership. However it was unanimously decided to increase Rs. 5,000/- as Life Membership fee and Rs.500/- as renewal/subscription fee for members. Other categories will be enhanced accordingly.

#### e. Proposal of Engr. Syed Khalid Sajjad regarding purchase of 1000 CC Cultus Car

The proposal for purchase of a Car for pick and drop service of Central Council Members as well as for other experts for attending meetings in the Institution on payment of Rs. 500/- was discussed but not approved.

#### 5. Minutes of 178<sup>th</sup> Membership Committee Meeting

The Council approved all the cases as recommended by Membership Committee. These included:

##### Admitted

Members	2 Nos
Associate Members	2 “
Graduates	7 “

##### Transferred

Member to Fellow	2 “
Associate Member to Member	1 “

#### 6. Program for holding Seminars by Headquarter & Lahore Local Centre

The Council endorsed the Program of Seminar on “Review of Power Policy” by Headquarters during 1<sup>st</sup> week of May 2009 and Symposium by Lahore Local Centre in University of Central Punjab (UCP) on 27<sup>th</sup> May 2009.

#### 7. Proposal of Engr. Riaz Ahsan Baig on IEEEEP Award Ceremony.

The Council discussed recommendations of Engr. Riaz Ahsan Baig on Instituting IEEE(P) Awards for best Professional Performance. It was generally agreed to start with the progress. It was decided to include Best Graduate Awards for Students from all UET's of the Country. Every year three best students will be given IEEEEP

Awards. Engr. Riaz Ahsan Baig was advised to provide the details of the evaluation criteria for selection.

**8. Reactivation of Local Centres at Multan Hyderabad, Faisalabad and Rawalpindi/Islamabad**

It was expressed by most of the members that IEEE(P) Local Centres should be reactivated. Hony. Secretary General opined that the strategy should be changed and Universities should be involved and less dependence be made on DISCO/PEPCO engineers to diversify the membership & the scope of activities of IEEE(P). Engr. Prof. Dr. Suhail Aftab Qureshi was of the view that such a strategy would need more dynamic and mobile role of office bearers of IEEE(P) and just desk work will not yield desired results. The Council unanimously agreed to.

Engr. S.S.A. Jafri Vice President South offered his services in reactivating the Local Centres in the south at Hyderabad and at Quetta. For this purpose, a formal request will be made by the Headquarter.

**9. Need of IEEE(P) Chapter in UET**

Engr. Prof. Dr. Suhail Aftab Qureshi reported with concern that IEEE(P) has not been able to conduct even one Seminar in UET and no chapter of IEEE(P) has been established in UET Lahore, although primary objective of the Institution is dissemination of technical knowledge. The Council resolved to conduct a Seminar in UET during June 2009. Further IEEE(P) Chapter would be opened in UET Lahore & other UET's at the earliest.

**10. IEEE(P) Web-Site Up-date Progress**

The Council discussed the progress of updating of IEEE(P) Web-Site and stressed for more efforts to up-date the Web-Site. In this connection, the office especially Manager Admn was directed to actively pursue this.

**11. Any other Items**

**Consultative Role of IEEE(P)**

Engr. Salman Najeeb Khan Chairman Lahore Local Centre pointed out that IEEE(P) should also have a consultative role issuing a Red Book for the guideline of the commercial entities and contractors on building wiring so as to avoid short circuits which result in fire & losses. It was told that only PEC has the Authority to issue codes for guidance of contractors & builders.

**12. The meeting ended with a vote of thanks to and by the Chair.**

  
(Engr. M. Saleem Arif)  
Hony. Secretary General

Dist. To all Council Members

**QUOTATION**

- \* Millions saw the apple fall, but Newton was the one who asked why.  
— Bernard Baruch
- \* The important thing is not to stop questioning.  
— Albert Einstein
- \* Curiosity is one of the most permanent and certain characteristics of a vigorous intellect.  
— Samuel Johnson
- \* A cynic is a man who, when he smells the flowers, looks around for a coffin.  
— H. L. Menchen (attrib)
- \* Poetry is the spontaneous overflow of powerful feelings: it takes its origin from emotion recollected in tranquillity.  
— William Wordsworth
- \* The secret of genius is to carry the spirit of the child into old age, which means never losing your enthusiasm.  
— Aldous Huxley
- \* The love of life is necessary to the vigorous prosecution of any undertaking.  
— Samuel Johnson
- \* What hunger is in relation to food, zest is in relation of life.  
— Bertrand Russell
- \* A certain excessiveness seems a necessary element in all greatness.  
— Harvey Cushing
- \* Blessed is he who expects no gratitude, for he shall not be disappointed.  
— W.C. Bennett
- \* I am always grieved when a man of real talents dies, for the world needs such men more than heaven does.  
— Goerg Chrisoph Lichtenberg
- \* The search for happiness is one of the chief sources of unhappiness.  
— Eric Hoffer

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## List of Participant of 353rd Central Council Meeting

### List of participants

#### Present

1. Engr. Muhammad Anwar Khalid	President (in Chair)
2. Engr. Asghar Ali Randhawa	Immediate Past President
3. Engr. Riaz Ahsan Baig	Vice President
4. Engr. S. S. A. Jafri	Vice President (South)
5. Engr. M. Saleem Arif	Hony. Secretary General
6. Engr. Shahid Aslam	Hony. Treasurer
7. Engr. Farrukh Javed Tariq	Hony. Joint Secretary
8. Engr. Suleman Najeeb Khan	Member Ex. Officio (Chairman LLC)
9. Engr. Dr. Z. A. Fikri	Member
10. Engr. Mian Fazal Ahmad	Member
11. Engr. Muhammad Afzal	Member
12. Engr. Prof. Dr. Suhail A. Qureshi	Member
13. Engr. Anwar-ul-Hassan Khan	Member
14. Engr. M. Irfan Gohar	Member
15. Engr. Ali Sher Naqvi	Member
16. Engr. Kamran Masood Khan	Member
17. Mr. Muhammad Ihsan Khan	Manager Administration

#### Regrets

1. Engr. Shafiq A. Siddiqi
2. Engr. Bashir Ahmad Abbasi
3. Engr. Prof. Dr. Noor M. Sheikh
4. Engr. Mohsin M. Syed
5. Engr. Prof. Dr. Rana Abdul Jabbar Khan
6. Engr. Anwar-ul-Hassan

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**Please contact our new website & email**

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## SEMINAR “REVIEW OF POWER POLICY”

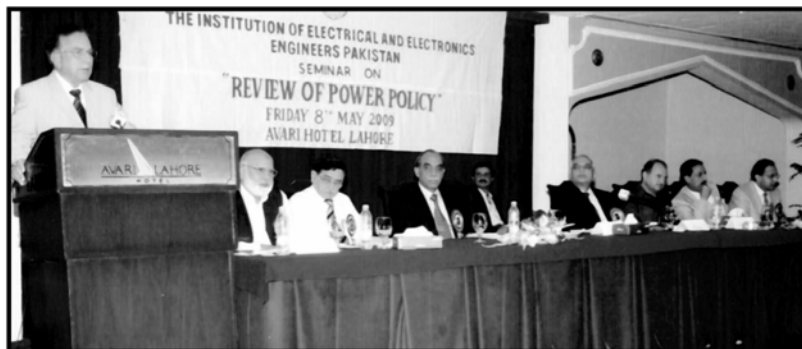
HELD ON 8<sup>TH</sup> MAY 2009

On May, 8<sup>th</sup> 2009 Seminar was conducted by IEEEEP on the topic “Review of Power Policy” the Chief Guest was Mr. Manzoor Ahmad Wattoo, Federal Minister for Industry & Production. Ch. M. Anwar Khalid President of IEEEEP in his welcome address narrated the basic problems of Pakistan for non-availability of electricity, indicating the non-cooperation of previous Government to Wapda and wrong policies of Ministry of Water & Power

The Minister took very serious view of the facts and gave difference suggestions for solving the problems. He further added this fact that now all the Institutions of Govt. of Pakistan i.e. NEPRA, PPIB, PEPCO.etc will cooperate with the public. He assured that Govt. is trying on its own level for installation of Power Plants and doing pacts with different countries for supply of free power plants. Rather Government is trying to find out the gas & Oil sources at cheap rates for generating cheap electricity. He accepted all schemes and suggestions from all speakers.

Engr. Farrukh Javid Tariq thanked to all participants, Senior Engineers, Executives of private companies and foreign participants for participating in the function and specially to the Chief Guest for presiding the function after leaving so many important engagements

### Glimpses of the Seminar on “Reveiw of Power Policy





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## Glimpses of the Seminar on “Review of Power Policy”





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## Glimpses of the Seminar on “Review of Power Policy”



## ACTIVITIES OF LAHORE LOCAL CENTRE

### Membership Campaign

1. Engr. Syed Saleem Akhtar, Hony. Secretary LLC visited to U.C.P on 24.2.2009 in-connection with Membership campaign of faculty members of UCP.
2. Lahore Local Centre delegation also visited to Siemens Pak. Engg. Office on March 8<sup>th</sup> 2009. for Membership Campaign.
3. Delegation of LLC visited to Wapda House in February, March, April and May 2009 for Membership campaign.
4. Visit of delegation to Spell Cable Factory located at Kahna Kacha was arranged on Thursday 2<sup>nd</sup> April, 2009 but due to non availability of member, it was postponed.

### LECTURE AT PC HOTEL LAHORE

- \*. Lecture arranged by LLC in collaboration with I.E.C. (Pvt) Ltd., Lahore at PC Hotel Lahore on 10.4.2009. The event was chaired by the Vice Chairman of Local Centre Engr. Muhammad Daud, Chief Engineer Design Wapda. Members of Institution attended the lecture. The subject of lecture was "APPLICATION OF QUALITY PRODUCTS IN ENGINEERING SECTOR" which was well delivered by G.M. I.E.C. (Pvt) Ltd., and Engr. Sohail Idrees Director, Delixi Electric Co. Lahore.

### Multi Topic Symposia

Multi Topic Symposia held on Wednesday 27<sup>th</sup> May, 2009 which was arranged by Lahore Local Centre at University Central Punjab Auditorium Lahore. Eminent Speakers read the papers on the following Topics:-

Name of Speakers	Topics of Paper
1 Engr. Mohsin M. Syed	Utilization of Renewable energy sources
2. Engr. Suleman Najeeb Khan	Role of Engineers in making Pakistan's economy self sustaining
3. Engr. Suhail Aftab Qureshi	Role of masses to conserve energy
4. Engr. Prof. Dr. Z. A. Fikri	Energy Management and marketing
5. Engr. Syed Khalid Sajjad	Effects of load shedding on economy
6. Engr. Ali Faisal	Dynamic Priority Based Arbitration for CAN Network using Maser Node.
7. Dr. Adeel Akram, Wajahat Abbas	PSNR Improvement for Real Time Data Transmission in Hybrid Wireless Networks
8. Yasir Javed Kiani	LIDS A light weight Intrusion Detection System using ID3
9. Engr. Tasveer Ahmed.	Pattern Recognition in Medical Diagnosis Problems using General Regression Neural Network.
10 M. Umair Khalid	Target Detection in Deference Applications using Back propagation.
11 Prof. Dr. Izhar-ul-Haq	Comsats Institute of Information Technology IMPACT of WLL to increase the Teledensity in Pakistan
12 Engr. Rana Riaz	Impact of Power Factor Improvement on Electrical Power Quality & Saving.
13 Muhammad Rafiq.	Application of Matrices in Cryptography

The event was well attended by the Engineers from different field. The event was started at 10.00 hrs and concluded at 18.00 hrs after evening session.

After the completion of Seminar, the house passed the following resolution unanimously:

"All the participants of the conference were of the opinion that the decision announced by the worthy Minister of Water & Power to scrap the Kalabagh Dam project immediately & for all times to come in future create a condition of famine by releasing irrigation waters, clean drinking water from glaciers to Arabian Sea instead of using it for Agriculture and closing down the Industry by producing extremely expensive, electricity through imported fuel i.e. Gas/Oil. Electrical Energy through fuel instead of producing it through water from Kalabagh Dam almost free of cost. This decision is extremely dangerous for the future of Pakistan.

All the Participants of the Conference.

Dated. 27.5.2009

Sd/-  
Capt. (R)  
Syed Khalid Sajjad)  
F-IEEEP

Sd/-  
Engr.  
Suleman Najeeb Khan)  
Chairman IEEEPLL

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**Glimpses of IEEEEP (LLC)  
SEMINAR ON  
“Application of Quality Products in Engineering Sector”  
10-04-09**



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**Glimpses of IEEEEP (LLC)  
SEMINAR ON  
“Application of Quality Products in Engineering Sector”**



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**Glimpses of IEEEEP (LLC)**  
**“Multi Topic Symposia held on Wednesday 27th May 2009”**



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**Glimpses of IEEEEP (LLC)**  
**“Multi Topic Symposia held on Wednesday 27th May 2009”**





**THE INSTITUTION OF  
ELECTRICAL ENGINEERS  
PAKISTAN**

**EXCERPTS**  
From History-1976

15th February, 1976

IEEEP Newsletter 76/02

Dear IEEP member.

Conventions are an annual function, and their success naturally depends on the strength of the members attending the function. Besides, the Convention provides the time for the Annual General Meeting and presenting technical papers on variety of subjects relating to the organization, and a befitting occasion for meeting old friends *sad forming* new friendships.

A tentative programme of the 6th Convention and the Annual General Meeting of the Institution of Electrical Engineers is given in this issue. Members of all categories, Fellows, Members, Associate Members, Companions, Subscribers, are requested to ensure that they keep their time free for this purpose.

It is this dedication to one limited purpose that makes our modern organizations effective.

Age of Discontinuity.

Peter F. Drucker

Two lectures organized by IEEE (USA) Pakistan Branch provided very sumptuous fare of a very high order for technical palates. A number of IEEP members also attended the two lectures. The lectures are briefly reported on other pages, and will be reported in the Quarterly Journal in due course.

The Institution of Electrical Engineers also caters for the field of Electronics, in addition 10 Power Generation, Transmission and Distribution. Covering the remaining nine months of 1976, would require just two lectures in each detailed field and the Committee for organizing technical lectures should have no difficulty finding speakers. A rich field of speakers is available in the Engineering University, particularly those who have been abroad recently. All it needs is a little patience and a little persistence.

We have become so accustomed to our illusions that we mistake them for reality.

Joe McGiunie

The season for the annual Conventions and General Meetings is on meeting is on us.

Institute of Engineers (Pak) will hold its Convention and Annual General Meeting from 25 10 30 April, with President

of Pakistan as Chief Guest.

Institution of Electrical Engineers Pakistan is expected to hold its Convention and General Meeting on 8th and 9th May 1976, with Mr. Mohammad Yusuf Khattak, Minister for Fuel, Power and Natural Resources, Federal Government, as the Chief Guest-

The Engineering Congress is awaiting the pleasure of the Prime Minister of Pakistan to fix the date of their Annual Convention and General Meeting.

A lecture on "Computer-Based Distribution Information Systems" was delivered by Dr. Zahir Fikri, of FACE-FIKRI and ASSOCIATES Consulting Engineers, Lahore, on 24-2-1976 in the Committee Room of Wapda House, under the auspices of IEEE (USA) and IEE (Pakistan).

The traditional view of work is that it is a curse laid on man, rather than as a blessing or an opportunity.

.....Only recently.....have

we come to realize that work is a psychological and social necessity for man.....

"Development of computer-based information systems, covering data bases and application programme, is essential for economic system expansion, operations, maintenance and procurement planning. The development process entails analysis of information plan within the power organization, definitions of objectives of different tasks and activities needed for satisfactory performance of different functions, establishing inter-relationships between different tasks, compilation and processing of basic data and computerization of solution techniques for engineering applications.

Subscription for 1976 became due on 1st January. The Convention and the Annual General Meeting is. not very far away.

Please clear up your arrears, IS yon have already cleared up, then ignore this notice.

In a recent lecture, given by Dr. Zahir Fikri, the various aspects of developing such as computer-based integrated distribution system were analysed and discussed.

The technical calculations for Operations control and expansion planning are very time-consuming because of the complexity of the distribution networks with a large number



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of small loads and line sections. In the European countries and the U.S.A. computer-based information systems for automatic data processing and technical calculations for network analysis were developed already 5-10 years ago. For efficient and economic planning and operation of WAPDA distribution systems the development of a similar computer-based distribution information system can be of great value both in terms of improved efficiency, quality of supply, system reliability and rational planning and operation activities.

Expanding the production and distribution of goods depends on a continuous and Steady growth in money supply.

## SYSTEM DESIGN REQUIREMENTS

By  
Major SALIM MALIK, te,  
A.M. Inst. EE (Fakl).

### Introduction

Communication system design is more of an *-art* than any other branch of engineering when we consider the entire range of disciplines involved in designing and engineering an effective communication system. If all communication system designs are represented as a mathematical model, it would most likely contain unlimited number of terms with many of them having a range of apparently satisfactory values rather than a precise single value. This hypothetical equation can be reduced to one containing the most important elements of the problem and then application of the flow-charting techniques of computer programming attempt to reduce each factor to a finite number of possible paths or branch decisions so that we can reach a logical conclusion.

The increasing complexity and sophistication of modern communication systems require that an orderly process be set down during the problem definition stage.

### Principles

After the communication requirements have been defined and the possible solutions outlined, the system engineer is then faced with the task of selecting one of the various alternatives in each segment of the system. He must evaluate the expected performance through each portion of each link, adding the deleterious effects of noise, distortion and diminishing signal-to-noise ratios while at the same time considering the probabilities of equipment and path failure and the alternate routing available in a complex network. This process of trading off technical advantages and disadvantages versus cost may require compromising some of the original requirements in whole or part, which may or may not be acceptable to the user. If for example, the service demands high reliability in a long-haul system with several tandem links, the degrading factors introduced by the equipment and transmission medium of each link should be assumed to add in an algebraic fashion to arrive at a proper calculation of the

maximum total end-to-end distortion. This method, carried out rigorously will result in a system design capable of successfully off-setting the worst case condition occurring simultaneously in each communication link. The process of comparison and compromise in trading one factor for another while weighing all the possibilities affecting total performance is the "art" in communication-system engineering.

### Characteristics of Communication Systems

The most general definition states that a communication system is one containing an information source, an information sink or user and a communication link for moving the information or intelligence between the source and the sink.

Information Source---Source Transducer---Channel  
Encoder---Communication Channel---Channel Decoder -  
---User Transducer---Information User.

The information source is the device or the person generating the original information to be transmitted by the communication system to the user. The "Source transducer" is any device capable of being actuated by waves or a source of energy and of supplying waves or energy related to the input. The waves or energy entering the transducer may produce an output which is of the same or different types, e.g. electric, acoustic or mechanical. The most common example of a source transducer is the microphone in a telephone handset.

The "Channel encoder" may be defined as a device which can accept the electrical signals from the source transducer and transform or condition these signals into a form suitable for transmission through the selected communication channel. The channel encoder may be a simple relay repeater, an amplitude or frequency shift modulator, a voice multiplex or a time division multiplex. The channel encoder must modify the signals from each source so that there is a distinctive and detectable difference amongst the several signals at the receiving end of the communication channel.

The "Channel decoder" recovers the signals and delivers them to the proper "User transducer". It must be designed to include the additional function of selectively filtering out each signal intended for a discrete information use as well as transforming each signal back into a form suitable to the particular "User transducer".

### Criterion of Acceptable Information.

Now that the basic communication system has been defined and examined, some consideration should be given to the principle factors which can disturb, distort, or otherwise corrupt a typical communication system. A communication system can be disturbed by distortion and noise at any or all the stages. The word "noise" in the field of communication has such a broad base and variety of manifestations that it is difficult to affix a generalized definition. One of the many standard definitions states "noise" as "any unwanted

disturbance within a useful frequency band, such as undesired electric waves in any transmission channel or device." "Distortion" may be broadly denned as "any undesired change in wave form". If we consider all the noise and distortion factors within each portion of the system, we can proceed from block to block through the system and determine the probability of meet-inc the criterion of acceptable information established by the user.

#### **Definition of the Communication Requirement.**

The "Definition of the communication requirement" is the fundamental first step in system design and. in many cases the most difficult *task*. Since most communication system designs involve a great many factors, involved technical evaluations, and time consuming cost comparisons, the importance of starting with a precise definition of the user's requirements and communication objectives cannot be overemphasized.

Earlier we considered that it would not be practical to write a general equation as a starting point for all communication system designs, however, a procedure can be established which will cover the essential steps in an orderly fashion.

The steps are as follows:-

1. What is desired?
2. How much is required?
3. How good? (in qualitative sense).
4. What techniques of transmission and reception will be employed?
5. Will it match with available facilities?
6. Is the equipment available?
7. Is the time available for research and development of new techniques if the techniques at 4 above are not adequate, or if the equipment is not available?
8. Cost comparison for new techniques.
9. How much can be sacrificed in the original objectives after weighing all the factors, mainly cost and time?
10. What additional capital, time and manpower can be justified to add a given degree of flexibility and accommodation for growth and new service requirements.
11. Examine the factor of obsolescence.

When all the above factors have been satisfactorily evaluated, the "Communication-system design specification" can be completed and the "Communication objective" reached.

#### **The Parameters of System Design.**

The above steps require certain fundamental parameters to be established to permit the evaluation and determination of facilities and equipment. These parameters, like the terms of any equation, must be evaluated if the process is to lead to a determinate result.

The following fundamental parameters of system design are listed in the usual order of consideration:

1. Intelligence to be transmitted-communication objectives.
2. Traffic analysis volume and loading requirements.
3. Criterion of acceptability-quality and grade of service.
4. Operating requirements-schedule
5. Initial survey geography of the system
6. Facilities survey available services, facilities and transmission mediums.
7. Survey of communication techniques and equipment.
8. Service quality and reliability versus cost.
9. Serviceability and personnel requirements versus cost.
10. Volume growth, new service, and future prospects versus cost.
11. Obsolescence.

#### **Conclusion:**

"System design requirements" is a vast field by itself, anyhow an effort has been made in this article to guide a system design engineer to think and plan logically. The design engineer has to consider so many factors simultaneously and unless he follows an orderly fashion, the design objectives may not be achieved at all.

(Reproduced from "QASID" January 1976, the Magazine of the Corps of Signals, Pakistan Army).

Social awareness is organizational self interest. The needs of society, if left unfulfilled, turn into social diseases.....

Enrolment upto 29<sup>th</sup> Feb. 1976.

#### **Associate Members (contd.)**

31. Mr. M. Ghulam A. Qatf.
32. Mr. Muhammad Haaif.
33. Mr. M. Khalid Sheikh.
34. Mr. M. Tahir Javaid.
35. Mr. M- Mohyud Din Khan.
- 36- Mr. M. Vaqar Ali Khan.
37. Mr. M. Tahir Zaidi.

38. Mr. Kamal Hameed Khan. IV  
 39. Mr. M. Ferote Akhl»r.  
 40. Mr. Muriaza Khan.  
 41. Mr. Ihsanul Haq.  
 42. Mr. M. Ehsan Jan QureshL  
 43. Mr. M. Younus Bhalri.  
 44. Mr. Muhammad Arshad.  
 45. Sh. Mohammad Ismail.  
 46. Mr. Asbiq Hussain Bhatd.  
 47. Mr. M. Waseem Khan.  
 48. Mr. Sbahid Sami Qadri.  
 49. Mr. Abdul Rasbid Usmani.  
 50. Mr. Ghulam Abbas.  
 51. Mr. Tariq Rehmaii.  
 52. Mian Mohammad Rafiq.  
 53. Mr. Nairn ud Din Qazi.  
 54. Mr. Gulzar Ahmad.  
 55. Rana Khalid Hayat Khan.  
 56. Mr. Shabbeer Ahmed.  
 57. Mr. S. Sajid Hussain.  
 58. Mr. Kaiser Husaio.  
 59. Mr. Shahid Ali-  
 60. Mr. Ali Mohammad Ariz.  
 61. Mr. Anwarul Hasan Khan.  
 62. Mr. M. Ismail Mover.  
 63. Mr. Shahudul Hasan.  
 64. Mr. Shafiq A.K. Sherwani-  
 65. Mr. Abdul Salam Pirzada.  
 66. Mr. Manzoorul Hasan Qureshi.  
 67. Mr. Munawar H. Kazntf.  
 68. Mr. Abdul Hakeem Sheikh.  
 69. Mr. Naimat Ali Chaudry.  
 70. Mr. Zakir Hussain.  
 71. Mr. N. A. Warraich.  
 72. Mr. Jzhar Hussain SiddiquL  
 73. Mr. Mohammad Zavid.  
 74. Mr. Jamil Ahmad Malik.  
 75. Mr. Ashfaq Mahmood.

76. Wing. Cmd. Arshad Mahmud-  
 77. Lt. Col. Imdaz Najam.  
 78. Maj. M. Rafiq Nasirn.  
 79. Mai. (Retd.) Abdul Hamid.  
 80. Brig. A. Sattar Chaudhary.  
 81. Wng. Cmd. A. Qayyum Mirza,  
 82. Mr. M. Saleem Akbar.  
 83. Mr. Musharraf Ali Khan.  
 84. Maj. Azmat Ali.  
 85. Mr. Hafeezud Din Siddiqi.

#### THE INSTITUTION OF ELECTRICAL ENGINEERS PAKISTAN NOTICE OF EXAMINATIONS

It is proposed to hold the first Studentship/Graduateship Examination of the Institution of Electrical Engineers Pakistan in October/November this year. Only registered students can take the examination. The qualifications are:

- (a) F.Sc. (Pre-Engg.) or equivalent are eligible for registration as Student Members.
- (b) Matric with Science may be registered as student members subject to the passing of Studentship Examination.

Syllabi, rules and regulations are obtainable from the Office of the Institution of Electrical Engineers Pakistan, 4-Lawrence Road, Lahore.

The standard of professional knowledge required for qualifying in the Graduateship Examination of the Institution of Electrical Engineers will be equivalent to that of a University Degree in Engineering in the particular field of specialisation.

The standard of knowledge required for qualifying in the Studentship Examination will be equivalent to that of F.Sc. (Pre-Engineering).

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