



The Professional

NEWSLETTER OF IEEE KERALA SECTION

NOVEMBER 1989

Warm Welcome To Emerson W Pugh IEEE President



The major technical activity of IEEE Kerala Section for the year 1989 is the National Seminar on "Lasers in Engineering and Medicine (LasEM-89)" being held from 30 Nov. to 2 Dec. 89 at Trivandrum. The seminar has evoked significant interest among the scientists and researchers working in the area, in the country and outside. A number of papers will be discussed and distinguished lectures delivered. Considering the increasing applications of lasers in the field of engineering and medicine, the Seminar will bring to focus the state of the art in the subject and provide a forum for evaluation of laser applications in the country and policy planning for more co-ordinated efforts towards further advancement.

Kerala Section considers it a great honour to have Dr. Emerson W. Pugh the distinguished President of IEEE to inaugurate this important Seminar. IEEE Head Quarters has always evinced keen interest in the activities of this section and ren Jared guidance and support in all technical endeavours. We believe that Dr. Pugh's visit will pave way for further strengthening IEEE activities in India. The President of the largest transnational Engineering Society having 39,000 members in over 130 countries, Dr. Pugh is an eminent scientist in the computer and information technology area. He has held senior management positions in IBM and presently with IBM/Watson Research Centre, N. Y. A fellow of IEEE, Dr. Pugh has several publications and patents to his credit. Kerala Section extends a warm welcome to Dr. Pugh.

From Chairman's Desk

The world today is at Cross-roads, needing help from all centres to solve the multitude of problems,—man—made as well as those imposed by vagaries of nature. The time has come for the engineering community to play a key-role in the society, more than ever before. Innovative solutions based on sound engineering principles are needed in many facets of life, where, age-old, conventional methods fail to deliver goods. Professional organizations like IEEE, have two options in front of them, at this juncture:

- Watch from the side lines in a passive way
- Get into the arena and fight the battle

Obviously, we should not be complacent; this is the time when we can go out into the open and help our brethren. There is an urgent need for each member to become aware of this responsibility and play their individual roles effectively—lest the Society will not accept and allow the existence of bodies like IEEE.

November 1989 is an important month for Kerala Section. Dr. Emerson W. Pugh, President, IEEE, is visiting the Section in connection with the inauguration of the National Seminar on "Lasers in Engineering and Medicine (LasEM 89)" on 30 Nov. 89. A fitting tribute to our honoured guest would be a rededication of ourselves to the Service of the Society.

N. T. Nair
Chairman

IEEE Kerala Section

Trivandrum
22 Nov '89

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From Secretary's Desk

During the last decade IEEE Kerala Section has been in the forefront of other professional organisations of the State. During this period section organised an average of 26 technical talks every year and one National Seminar on topics of current relevance.

The topics of the Seminars held in the previous years are

- Computer Applications in Power System
- Solar Energy
- Frontiers in Communications
- Super Conductivity

1988 was a very hectic period for the section. 42 nos. of technical talks, 2 nos of tutorials and one national seminar on Super Conductivity were organised during this period.

Seven out of the Eight Engineering colleges in the state has IEEE Student Branches. By the end of the year, it is hoped that the eighth one will also join the lot.

There are two Society Chapters under the section.

- Computer Society Chapter
- Industrial Electronics & Industrial Applications Chapter.

The tempo could be maintained during this year also. So far 26 nos of technical talks were organised. At present, the section has a strength of 642 members.

Let me take this opportunity to thank the members of the Executive Committee for their whole hearted support.

A. G. HAREENDRALAL

Secretary

Zero Defects

There are many, who would be thinking that a product that is "99.9% free of defects" is more than adequate, for all practical purposes. Hold on! The following statistics, as applied to American life, presents a totally different and dismal picture.

If the above percentage is accepted,

- Eighteen airplanes would crash in America every day
 - The postal service would lose 17,660 pieces of mail every hour
 - More than 3,700 prescriptions would be filled incorrectly everyday
 - Ten newborn babies would be dropped during delivery everyday
 - Financial Institutions would deduct 24.8 million US \$ from wrong accounts every hour
 - Surgeons would perform 500 incorrect operations every week.
- Suddenly, striving for zero defects starts to make a lot of sense, isn't it ?

Courtesy : N. T. Nair

Technical Programmes During 1989

Date	Topic	Speaker
10-1-89	Modern Trends in Design and Planning of Electrical Distribution System & Energy Control Centres	Meenakshi Sundaram & Sebastian V Kurien
18-1-89	Advanced Structural Materials for Polymers	Dr. Zahir Bashir, Bristol University, UK.
19-1-89	A Strategy for Power Cut	Prof R. V. G. Menon, Director, ANERT
3-1-89	Multi Bus II	Mr. Smit, Microelectronics
22-2-89	Composites: Potential Materials for the future	Dr. K. G. Sathy Narayana, CSIR, Tvm.
8-3-89	Network of Human Heart	Dr. C. C. Kartha, Sreechitra Medical Centre
15-3-89	Optimisation Techniques - Introduction	Dr. K. Gomathi, College of Engineering, Tvm.
22-3-89	Optimisation Techniques - Dynamic Programming	Dr. K. Gomathi,
29-3-89	Image Compression Technique using interactive functional System	R. P. Lalaji, Director, Institute of Computer Technology, Quilon
25-4-89	Business Computing — A Perspective	Mr. K. P. P. Nambiar
26-4-89	Man Power: Quality & Availability	Mr. Rittan K. Datta, D.S.T. Delhi
27-4-89	Indigenous Knowhow or Imported Technology: Choices for India	Mr. G. Ramachandran, Hind Motors, Madras
24-5-89	Computer Aided Engg. and Computer Aided Design	Mr. Celso Alejo, Daisy System Corporation, USA
30-5-89	Quality & Consumer Movement	Mr. K.G.M. Nair, Consumer Protection Council
7-6-89	Lasers & Applications	Dr. Simon George, Dept. of Physics, California State University
20-6-89	ISBN	Mr. George Mattathil, Consultant, USA
27-6-89	Standardisation at National Level	Mr. P. R. Srinivasan, Head, B.S.I. Tiruvandrum
7-7-89	In Search of Aerospace Excellence	Mr. M. S. R. Dev, VSSC
10-7-89	Microhydel Projects	Prof. Soun Jaranayakam, I.I.Sc., Bangalore
11-7-89	FOCUS—a 4GL	Mr. Ravi Lalvani, NIIT, Bangalore
12-7-89	Organisation of SCADA of French Power Systems	Mr. Jean Claude Navatte, Electricite de France
9-8-89	Parallel Processing & its Effects on Computer Architecture	Dr. M. S. T. Namboothiri, Texas University
25-8-89	Quality System Standards	Mr. Reghupathi, Dy. Director, BIS, Madras
8-9-89	Super Computers for Aerospace Simulations	Dr. S. C. Purohit, VSSC
19-9-89	Telecommunication Development during 8th Plan for Kerala	Mr. U. V. Nair, Chief Gen. Manager Telecom
20-9-89	Cellular Radio	Mr. M. A. Ramaswami, G. M., DOT, Delhi

LasEM-89 HIGHLIGHTS

Organised by the Institute of Electrical and Electronics
Engineer's, Inc, Kerala Section.

Venue : Banquet Hall New Govt. Guest House, Thycaud Trivandrum-695 014
Thursday, 30th Nov 1989

		Invited Speakers
17.45 hrs	Inaugural Address Dr. Emerson W. Pugh President, I E E E	1. Dr. Kanthi Mody, Jaslok Hospital, Bombay 2. Dr. B. Krishna Rau, Gastroenterologist, Madras. 3. Dr. L. M. Kukrjea, BARC, Bombay.
18.30 hrs.	Keynote address Dr. U. K. Chatterjee, BARC Bombay	4. Dr. I. S. N. Murthy, I. I. Sc., Bangalore. 5. Dr. T. Ramchandran, SCTIMST, Trivandrum. 6. Dr. K. Ravimandalam, SCTIMST, Trivandrum.
Friday, 1st December 1989	Registration Technical Sessions	7. Prof. B. Venkataraman, TIFR, Bombay. 8. Dr. A.G. Dnedovets, USSR
09.00 hrs	Lasers in medicine I	9. Dr. S. Harigovindan, VSSC, Trivandrum. 10. Dr. R. Jayaraman, Director, Technical Education Govt. of Kerala,
09.00-12.30 hrs	Lasers and Laser Instrumentation	11. Dr. A. M. Lashin, USSR, 12. Dr. U. Nandy, CAT, Indore.
13.30-17.00 hrs	Lasers in medicine II	13. Dr. T. P. S. Nathan, CAT, Indore 14. Dr. K. R. Sarma, DST, New Delhi
Saturday, 2nd December 1989	Lasers in Engineering	15. Dr. M. Sathyanaraynan, VSSC, Trivandrum. 16. Dr. S. L. Selishhev, USSR.
08.30-10.00 hrs	Panel Discussion: Laser Application in Indian Context	17. Prof R. K. Thareja, IIT, Kanpur.
10.30-15.30 hrs	Valedictory function	
16.00-17.00 hrs		
17.30 18.00 hrs		

Co-sponsored by :

- Bhabha Atomic Research Centre, (BARC), Bombay.
- Computer Society of India (CSI), Trivandrum Chapter.
- Department of Science and Technology (DST),
Government of India.
- Department of Space (DOS)/Vikram Sarabhai Space Centre (VSSC).
Government of India.
- Electronics Research and Development Center (ER&DC).
Trivandrum.
- Hindustan Latex Limited, Trivandrum.
- Indian Council of Medical Research (ICMR).
Government of India.
- Institute of Human Resources Development in Electronics (IHRDE).
Trivandrum.
- Kerala State Electronics Development Corporation (KELTRON)
Trivandrum.
- State Committee on Science, Technology and Environment (STEC).
Government of Kerala.
- Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST.)
Trivandrum.

Join Power Engineering Society

Power engineering is undergoing rapid transformation with increasing applications of computers and micro-processors. To keep abreast of these developments become a member of the Power Engineering Society. The membership fee is U S \$ 15 with 50 % minimum income provision. All members will get Power Engineering Review (monthly) and computer Applications in Power (Quarterly).