

# IEEE Region Eight NEWS



*return Vol 10/1987*  
*25/10/1987*  
*Mani*  
**No. 78**  
**May 1987**

**Editor**

Dr. G. H. Byford,  
"Sandstones", Crooksbury Road,  
Runfold, Farnham,  
Surrey, England, GU10 1QB

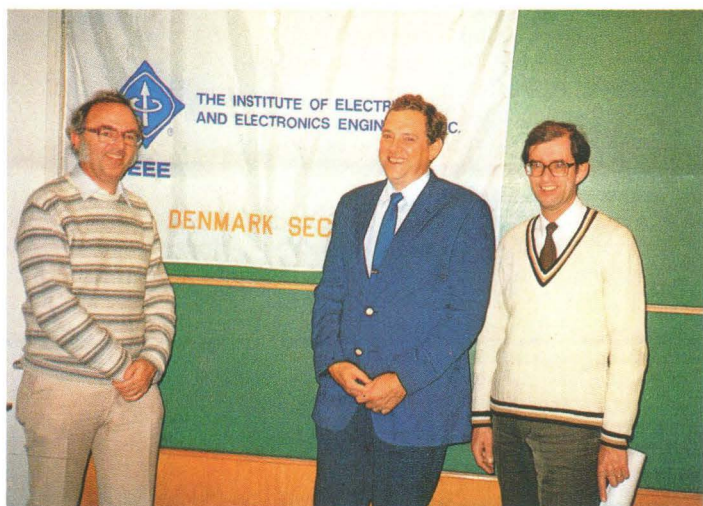
Telephone: (+44) 2518 2625 UK 02518 2625  
Telex: 858623 BUR G Fax: 0252 721521

## NEWS FROM THE SECTIONS

### DENMARK

**By Professor P. Martin Larsen**

Dr. E. Niehenke, Westinghouse Electric Corporation presented, as Distinguished Microwave Lecturer, his paper on "Gallium Arsenide, a Key to Modern Microwave Technology", at the Technical University in Lyngby and at the Aalborg University Centre in November 1986. It is the first time in five years that a Section meeting has been held in Aalborg.



5 December 1986. Dr. Edw. Niehenke, Distinguished Microwave Lecturer, visited Aalborg University Centre and lectured to the Denmark Section. M. Bach Anderson and J. Engberg (right), Professors at the University Centre, the Institute for Electronic Systems.

The total number of Section meetings in 1986 was 14. In the spring of 1987 the following meetings are planned:

Knowledge-based Systems for Control and Supervision. Professor Morten Lind, Technical University of Denmark;

Recent Advances in VLSI Circuit Design and Simulation. Professor I. N. Hajj, University of Illinois, USA;

Automatic Recognition of Icefloes from Satellite Pictures. Mr. O. Tiedmann, Hope Computer Centre Inc.;

Presentation at the Institute of Automatic Control, Lund University of Technology, Sweden. Joint meeting with the Sweden Section;

SUBMY-SEMINAR. Trends in Mega-chip Technology and Applications. Mr. G. Bohle et. al, Siemens Corporation, FRG;

Visit to the Department of Informatics, Riso Research Centre, Roskilde.

(Section Chairman: Professor P. Martin Larsen, Electric Power Engineering Dept., Bldg. 325, Technical University, DK-2800 Lyngby, Denmark.)

### EGYPT

**I. 1986 Activities:** Seven meetings including three technical Computer Chapter meetings; three Section meetings and one annual Section meeting. Membership is approximately 300.

**II. 1987 Objectives.** Increase membership by at least 10%. Convene four Section and four Computer Chapter meetings. Conduct a two-day workshop on "Fourth-Generation Languages and Software". Establish a Power Society Chapter.

**III. Specific Action.** To extend Egypt Section to include Sudan and North Africa under the title "Egypt and North Africa Section" with the possibility of establishing subsections if membership allows.

(Section Chairman: Dr. Abdal-Latif Ahmed, IDP Cairo, 21 Kamal El Din Salah, Garden City, Cairo, Egypt.)

### FRANCE

**By Professor M. H. Carpentier**

The General Meeting of the Section and the associated dinner will take place on 11 June 1987 in "La Maison des Centraux": the invited speaker will probably be Professeur Hubert Curien, past Minister (Research); he will speak about European Co-operation in Research and Development.

To be noted in December 1987 (16-18) our International Symposium on High Performance Computer Systems, organised by EUCOPE (European Co-operation on Performance Evaluation), IEEE France Section and the French Chapter of the Computer Society. Information may be obtained from Prof. ERol Gelenbe (F IEEE), ISEM Universite, Paris-Sud, Bat. 490, F91405 Orsay, Cedex, France.

It is also important to note that the France IEEE Section is organising the "Fourth International Workshop on Atmospheric Icing of Structures", organised by Electricite de France, in Paris, (5-7 September 1987) - following the USA in 1982, Norway in 1984 and Canada in 1986. Papers have to be submitted before 1 November 1987. Information is obtainable from Hean-Louis Lapeyre and Francois Pourbaix (Workshop on Atmospheric Icing), Electricite de France - Direction des Etudes et Recherches, 1 Avenue du General de Gaulle, F92141 Clamart, Cedex, France. Telephone: (1) 47 65 31 27 or (1) 47 65 31 09. Telex: 204347 F.)

### GERMANY

**By Professor Dr. Rudolf Saal**

The recently formed Computer Chapter of the Germany Section has held four technical meetings with topics ranging from the general aspects of software, to hardware development, graphics



and artificial intelligence (Contact: Mr. R. L. Baber, Landgraf Gustav Ring 5, 6380 Bad Homburg).

The MT-Chapter chaired by Professor R. N. Jansen, Neanderstr. 5, 4030 Ratingen, has been very active with conferences on Digital Transmission and MMIC's – in conjunction with delegates from universities and industry. There was a satellite transmission at the opening ceremony of the MTT-Baltimore meeting, which linked representatives of the German Chapter and US officials. Next meetings are on "Quasi-optics" at ANT Backnang and "Solid state sources for mm and submm waves" in April and May. Membership of the Chapter is now 135. A joint Chapter MTT/AP is being considered to widen the scope. Student branches in Stuttgart and München will act as hosts to the Region 8 Student Meeting 4–9 May, including visits to both cities. Students are still joining IEEE in Aachen and the Ruhr area to form new local branches.

Section activities include the support of the following conferences in 1987:

Grossintegration, 16–18 March, Baden Baden, ITG;  
CompEuro '87, 11–15 May, Hamburg;  
5th Int. Symposium on High Voltage Engineering, 24–28 August, Braunschweig;  
13th European Solid State Circuits Conference, 23–25 September, Bad Soden/Ts;  
7th International Conference on Distributed Computing Systems, "ICDCS '87", 1–25 September, Berlin;  
9th DAGM-Symposium Mustererkennung, 29 September–1 October, Braunschweig;

and for 1988:

Architektur und Betrieb von Rechensystemen, 9–11 March, Paderborn;  
"Sensoren-Technologie und Anwendung", 14–16 March, Bad Nauheim;  
"Das ISDN" in der Einführung, 7–9 March, Berlin;  
"13th Internationalewr Kongress Mikroelektronik", 2–8 November, München.

The President of the IEEE, Mr. H. L. Bachmann, will visit Germany on the occasion of CompEuro '87.

The Germany Section stimulated the creation of a Heinrich Hertz Medal, commemorating the 100th anniversary of the basic Hertz experiments, and "dedicated to outstanding achievements in the field of Hertzian Waves". The medal will be awarded for the first time at the Region 8 25th Anniversary – October 1988 in Munich.

The Executive Committee met for two days in Berlin. The associated member meeting again served to establish new contacts between IEEE members and to discuss general IEEE matters, eg the best way to pay dues (credit cards!). The next business session is planned for January 1988 in Erlangen.

### Das ISDN in der Einführung

Einladung zur Anmeldung von Vorträgen

Der Fachbereich 1 „Kommunikationssysteme“ der Informationstechnischen Gesellschaft im VDE Ingehemals: Nachrichtentechnische Gesellschaft im VDE (NTG), veranstaltet unter Mitwirkung des Fachbereiches 4 „Technische Informatik“ sowie in Zusammenarbeit mit der Deutschen Sektion des IEEE vom 7. bis 9. März 1988 in Berlin.

In einzelnen sollen folgende Themenkreise behandelt werden:

- Zusammenwachsen von Telekommunikation und Datenverarbeitung
- Anforderungen der Anwender
- Kommunikationsdienste und ihr Nutzen für die Anwender im Büro, im Heim, bei mobilem Einsatz
- Netz- und Dienstübergänge
- Das ISDN-Konzept
  - Benutzer-Netz-Schnittstelle
  - Standardisierung
- ISDN-Netzbausteine
  - Netzabschlußeinheiten
  - Bausteine der Anschlußtechnik (Vermittlungstechnik, Übertragungstechnik)
  - Technologische Voraussetzungen
- Endeinrichtungen
  - Leistungsmerkmale
  - Anschluß herkömmlicher Endeinrichtungen

- ISDN-Kommunikationsanlagen
- Protokolle im ISDN
- Dienst- und Netzgüte im ISDN, Verkehrsfragen
- ISDN-Einführungsstrategie der Deutschen Bundespost
- Erfahrungen aus dem praktischen Einsatz und aus Pilotversuchen
- Aufwärtskompatible Weiterentwicklung zum Breitband-ISDN

Vortragsanmeldungen mit einer Inhaltsangabe von ein bis zwei Schreibmaschinenseiten werden bis zum 15 Juli 1987 an den Leiter des Programmausschusses:

Herrn Dr. P. Bocker, Siemens AG, N ZL P, Hofmannstraße 51, 8000 München 70.

(Section Chairman: Professor Rudolf Saal, Technical University, Arcistrasse 21, 8000 Munich 2, Federal Republic of Germany.)

## HUNGARY

By Dr. Istvan Novak

The Society of Hungarian Electronic Engineers is active in creating a Hungarian IEEE Section. The forthcoming technical event where IEEE members will participate is the 8th International Symposium of IMEKO on Measurement Theory and its application to Practice, entitled "Signal Processing in Measurement", to be held in Budapest, 10–12 June 1987.

From a preliminary list of applications, there will be at least six members from other countries participating in the Symposium

Among numerous topics, the most important are:

- Adaptive Sampling and Reconstruction;
- Estimation and System Modelling
- Multivariate Signal Processing
- Spectral Methods and Programming Tools
- Industrial Applications
- Spectral and Related Methods
- Measurement of Vibration and Strain
- Decision based on Signal Processing;
- Image Processing

(Secretary to the Organising Committee: Dr. Istvan Novak, Assistant Professor, Technical University of Budapest, Microwave Department, Goldmann ter 3, H-1111 Budapest, Ungarn.)

## ISRAEL

### Past and Future Benefits of Technology to Humanity

Within the framework of the activities of the 25th anniversary of Region 8, the IEEE Israel Section is organising a workshop to review the past achievements of Electrical, Electronics and Computer Technologies for the benefit of Humanity and to outline a scenario on "What is yet to come in the next 25 years".

The two-day workshop will be held in December 1987 (final dates yet to be set) in or near Jerusalem, with the participation of 15–20 active experts from Israel and from abroad. In addition to introductory lectures there will be informal, interactive and unrestrained discussions.

The subjects to be included in the Israel workshop are:

- (a) Health and Medicine;
- (b) Work and Production;
- (c) Personal development.

The workshop will be open to additional participants and its lectures and discussions will be recorded (and possibly videotaped). Other sections in the Region will be invited to hold similar workshops on additional themes. The ideas and recommendations generated by the workshop will be presented at the Region 8 Anniversary Celebration in October 1988.

Sections interested in co-operating, and members interested in participating (actively or as visitors) are invited to contact the organiser: Dr. J. Baal-Schem, P.O. Box 1205, Holon 58112, Israel.



## NORTH ITALY

By Professor Fabio Saccomanno

From the operational and financial point of view the Section can be considered to be in good health. The membership (all grades) has increased by 141, from 781 in December 1985 to 922 in December 1986. The most significant activities during 1986 are the following:

(i) Section awards to Student Members (for a total of 3,100,000 lire). They are very much appreciated by the students and apparently produce results as far as student numbers are concerned.

(ii) Meetings and Conferences. The Section has sponsored one technical Conference and twenty-two meetings, all with a very satisfactory response.

(iii) Contacts with National Societies. During 1986 new forms have been studied concerning the interaction and co-operation with the Associazione Elettrotecnica ed Elettronica Italiana (AEI). The approval of such proposals is on the agenda for the next Annual General Meeting of the Section.

We have two major problems: (a) recording procedures for membership subscription or renewal are often very slow, and as a consequence many members receive second renewal notices a long time after having paid their dues; (b) the Computer Society magazines have not been received since the Spring of 1986; there has been no explanation from the Society. The Executive Committee of the North Italy Section has invited the Computer Society to send both the current and the back issues to its members in North Italy.

(Section Chairman: Professor Fabio Saccomanno, DIE -Università di Genova, Via Opera Pia, 11/A 16145 Genova, Italy.)

## POLAND

By Professor W. Seruga

**1. Membership Development.** At the end of December 1986 the number of members was 96, with 21 students among them.

**2. Conference Activities.** On 17-19 March in Pavia, Italy, there was the third meeting of the Steering Committee of ISEF '87 (the International Symposium on Electromagnetic Fields in Electrical Engineering).

**3. Technical Meetings.** The following lectures were presented:

(a) 29 October 1986, Dr. Jan Szymanowski from Warsaw Technical University, "Systems Programs for Minicomputer Type SM-4 Equipped with SC-24 Converter". Warsaw Technical University;

(b) 29 October 1986, Pawel Biskupski, MSc, from Warsaw Technical University, "Hardware Emulation of PDP 11/24 Minicomputer on SM-4 Minicomputer with the Help of an SC-24 Converter". Warsaw Technical University;

(c) 30 October 1986, Dr. Włodzimierz Lewin from Electrotechnical Institute, Warsaw, "Modern Reliability Engineering". Electrotechnical Institute.

(d) 6 November 1986, Dr Włodzimierz Lewin from Electrotechnical Institute, Warsaw, "System Reliability Analysis". Electrotechnical Institute, Warsaw;

(e) 13 February 1987, Adam Lapiński, PhD, from Electrotechnical Institute, Wrocław, "Elaboration and Investigations of AgSnO<sub>2</sub> Sinters for Electrical Contacts". Electrotechnical Institute, Wrocław;

(f) 17 February 1987, Dr. J. Mottl from Electrotechnical Institute, Warsaw; J. Koziol, MSc, from Atomic Energy Institute, Warsaw; D. Grabowski, MSc, from Central Laboratory of Radiological Protection, Warsaw; Assistant Prof. Dr. F. Wirkus from Institute for Meteorology and Hydrology, Warsaw; Assistant Prof. D. Med. Jerzy Woy-Wojciechowski from Polish Medical Society, Warsaw; and Prof. Dr. Ing. Bojarski from Institute for Fundamental Research in Technology, "Ecological hazard in the case of an accident in a nuclear energy plant". Electrotechnical Institute, Warsaw.

**4. Section Executive Committee Meetings.** Meetings of IEEE Poland Section Executive Committee take place regularly, every month.

**5. Finance.** We submitted our annual financial report for the year ending 31 December 1986, and have now started to clear up the differences between the estimation made by the Poland Section and Field Services; these concerning the Custody Account Statement of Poland Section.

**Symposium on Electromagnetic Compatibility: Krótkie Sprawozdanie.** W 1986 roku odbyło się 8-me już Wrocławskie Sympozjum Kompatybilności Elektromagnetycznej. Uczestniczyło w nim 218 specjalistów z 20 krajów, w tym 51 osób z krajów socjalistycznych, 46 osób z krajów kapitalistycznych i reszta z Polski /20 osób było z krajów poza europejskich, przy czym po raz pierwszy zanotowano udział 5 specjalistów z Chin przy zgłoszonych 12 referatach/. Około 200 osób jest liczba wokół której oscyluje ilość uczestników nieprzerwanie od 1976 roku, tj. od 1-go sympozjum w skali międzynarodowej.

Sympozjum zakończyło się sukcesem mimo niespodziewanych kłopotów, związanych z katastrofą siłowni nuklearnej w Czernobylu oraz z polityką USA ograniczania kontaktów /z USA były tylko pojedyncze osoby i 1 referat, ale na inne kraje zachodnie polityka ta mniej wpłynęła/. Przedstawiono ponad 130 referatów z 21 krajów /3 tomy, 1192 str./, które reprezentowały większość istotnych kierunków badań w zakresie kompatybilności elektromagnetycznej takich jak:

- zakłócenia i kompatybilność w urządzeniach i systemach,
- impuls elektromagnetyczny,
- zakłócenia w telekomunikacji przewodowej,
- propagacja,
- technika antenowa,
- gospodarka widmem elektromagnetycznym,
- zagrożenia biologiczne promieniowaniem elektromagnetycznym.

The Proceedings contain full papers in English or Russian (as submitted by the authors) with a summary in the second language. Copies are available from: EMC Symposium, Bix 2141, 51-645 Wrocław 12, Poland.

(Section Chairman: Professor W. Seruga, Senatorska 20 m 23, 00095 Warsaw, Poland.)

## SAUDI ARABIA

Prince Sattam Bin Abdul Aziz, the Deputy Governor of Riyadh opened the first symposium on electricity systems in rapidly developing countries, being organised by King Saud University in collaboration with IEEE Region 8.

In a welcome speech, Dr. Mansour Al-Turki, the Rector of King Saud University, pointed out the great encouragement being given by Prince Sattam to the university aiming at boosting co-operation between the university and the international scientific institutions.

Addressing the symposium Prince Sattam highlighted the comprehensive development witnessed by the Kingdom in all walks of life in a record time, which he attributed to Allah's Grace, sincere efforts and wise directives of King Fahad, the Custodian of the Two Holy Mosques.

The Kingdom has made a quantum leap in electricity covering the Kingdom's various parts.

Prince Sattam said collective efforts have been exerted to upgrade the electricity industry in the country. The Saudi universities, especially the King Saud University, contributed effectively to it in preparing national manpower to run this vital sector.

Prince Sattam said as part of the mission of the universities is scientific research and interaction with society, the university had been organising successive symposia and seminars, aiming at promoting the cultural and scientific standard of Saudi personnel.

Prince Sattam expressed the hope that the symposium will achieve its goals namely to upgrade the standard of performance of power services in the developing countries in general and rapid developing countries in particular.

A representative of the IEEE expressed his pleasure for taking part in the symposium. He added that the IEEE will spare no effort to make the symposium a success. He said one of the objectives of the institute is to establish close contacts with electrical engineers, computer scientists and technicians at global level.

Dr. Ali Abdul Latif, the Dean Faculty of Engineering said about 145 working and research papers will be discussed.



## UNITED KINGDOM & REPUBLIC OF IRELAND

The Circuits and Systems Chapter held a one-day Conference which discussed a preview of some of the contributions to be presented at the ISCAS meeting in Philadelphia. There was an additional programme of nine technical papers. On 1 April an evening meeting was arranged: "Estimation of Missing Speech in Packet Communications Systems" – David J. Goodman from AT & T Bell Laboratories.

At a meeting held on 25 March the Computer Chapter discussed a plan of activities for the coming year. A meeting on "Engineering Software" will take place on 14 May at Slough College. A proposal was made for a meeting in September; this would be concerned with "Functional Programming and the ALICE Group" – Imperial College. There was also a proposal for a joint meeting with the Control Systems Chapter, perhaps on Microprocessors in Control Systems. A regular "Computer Society" Newsletter was discussed.

(Section Chairman: Professor Charles W. Turner, Electrical and Electronic Engineering Department, Kings College, London, England, WC2 2LS.)

## MAINLY FOR STUDENTS

### Second Transnational Student Meeting

by Maurice Paquay, Chairman Student Branch, Eindhoven

In October last year, the second Transnational Student Meeting took place in Finland. The three Finnish Student Branches of Oulu, Tampere and Helsinki played host to students from Zurich, Lissabon and Eindhoven. During the day there were excursions to high technology companies on the programme, but non-technical activities, such as an introduction to the beauties of nature in Finland, were not forgotten. In the evenings there were social meetings (organised or not) always in a relaxed mood and often stimulated by a traditional sauna. These saunas acted as a melting pot for the different Student Branches, which in Finland acted as one group; it was here that the foundations were laid for future co-operation between the Branches.

Without doubt, this meeting was once again a great success and I hope that similar activities will continue far into the future; they foster co-operation between students from all over Europe and are an example of the unique transnational character of the IEEE.



Finnish, Swiss, Portuguese and Dutch students near Lapland, in search of reindeer.

## Ice Bore Cores as an Environmental Chronicle

By Hans Zettler

Ice Bore cores taken from Antarctic ice, or from glaciers, have been shown to be an important source of information on the atmospheric conditions of former times. When a layer of ice is formed by precipitation year by year, components of the atmosphere are at the same time frozen within the ice. By this means we obtain a chronicle which will give reliable information only if the ice remains frozen and does not melt temporarily. The analysis of ice bore cores has turned out to be an important element in answering the question: "How much carbon dioxide was in the air in some earlier period?" Professor H. Oeschger and his team, from the University of Bern, has within recent years carried out pioneer work in this field.

Regularly since 1958, direct measurements of the carbon dioxide content of the air have been obtained from the summit of Mauna Loa, Hawaii. These measurements have shown an increase from 315 ppm in 1958 to 345 ppm in 1986, due mostly to the burning of fossil fuels such as coal and mineral oil. In the Antarctic summer of 1983–4 the Bern scientists at the Siple station have obtained a 200m ice bore core, from which atmospheric components have been deduced as far back as the year 1744 ("Nature", vol. 324, p237). By means of the air bubbles locked in the ice, not only has the concentration of carbon dioxide been estimated but also, with the help of the isotope carbon-13, additional information concerning the carbon balance of the atmosphere has been obtained.

Before 1800 the atmospheric carbon dioxide content was 280 ppm, a similar concentration was estimated from a bore core obtained from the South Pole; this also included the years 1220–1560, during which period the concentration was clearly constant for several centuries. In the 19th century the CO<sub>2</sub> content increased, even before fossil fuels played a noticeable role. The major part of this carbon dioxide is derived from the biosphere and is due to the cutting down of forests and to increased rural activities; only in the 20th century has the use of fossil fuels started to play a dominant role. The fact that these latter measurements are well correlated with those taken directly on the peak of Mauna Loa, constitutes strong evidence for the reliability of the dates based on ice bore cores. Furthermore, an isotope analysis showed that in the course of years, the carbon-13 content has steadily decreased; this is associated with the fact that plants take much less C-13 than is found in the air (fractionising); the decrease of C-13 is due to both biospheric and to fossil carbon dioxide. If carbon dioxide enters the atmosphere it does not stay there permanently, because there are "hollows" into which it can disappear; there is on the other hand the sea which absorbs and emits carbon dioxide, and on the other the flora, which needs carbon dioxide for photosynthesis – it is also assumed that the increased carbon dioxide content acts as a fertiliser which stimulates plant growth.

Depending upon assumptions concerning the exchange between the atmosphere and the oceans, until 1980 some 90–160 gigatonnes of carbon have entered the atmosphere as carbon dioxide – at least half of it before the turn of the century. In 1900 the total of fossil carbon was only 12 gigatonnes; this increased in 1980 to 160 gigatonnes. In the 1950s the isotope structure of atmospheric carbon was seriously changed by atomic bomb tests and the percentage of radioactive isotope C-14 has steadily decreased: within old fossil fuels this isotope has already disappeared and therefore its concentration in the air has steadily decreased by the burning of coal and petroleum. This development is correctly reflected in the model calculations, which are based on totally different dates; the effect of atomic tests on the atmosphere can therefore be read from ice bore cores. It is known that large quantities of nitric oxides are produced by a nuclear explosion, which with the help of rain, fall as nitric acid. Dr. G. Holdsworth of the University of Calgary, Canada, has suggested a clear connection between nitric acid and radioactivity within bore cores from the glacial ice of Mount Logan ("Nature", vol. 324, p551); especially in the early 60s, a period which coincides with increased testing of explosive atomic devices.

Independent evidence suggests that between October 1961 and December 1962, explosive devices with a total force of about 340 megatonnes have produced six million tonnes of nitric acid; a similar estimate is obtained from values calculated from ice bores.

(Reproduced by kind permission of "Frankfurter Allgemeine Zeitung" – Translation by A. Witte, Siemens AG, Munich.)



# Go straight to the Geneva Summit 1987

TELECOMMUNICATIONS FOR A WORLD OF NATIONS



**5<sup>th</sup> World  
Telecommunication  
Exhibition**

**20-27 October 1987  
Geneva**

TELECOM 87 Secretariat • International Telecommunication Union • Place des Nations • CH-1211 Geneva 20

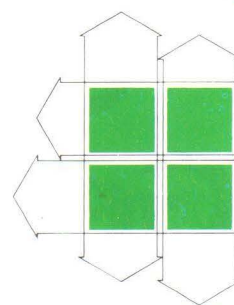




# The 7th International Conference on

# Distributed Computing Systems

**BERLIN** (West), Germany,  
21 – 25th September 1987  
International Congress Center  
Berlin



Sponsored by



The Computer Society  
of the IEEE



The Institute of Electrical and  
Electronics Engineers, Inc.



in cooperation with

Hahn-Meitner-Institut  
Berlin



Gesellschaft  
für Informatik e.V.

## Conference Program: September 23–25

- Decentralized computer architectures
- Communication architecture and protocols
- Distributed operating systems and systems software
- Distributed applications
- Distributed database systems
- Software engineering and languages for distributed systems
- Reliability, fault tolerance and security
- Modelling and performance evaluation
- Theory and formalism

*For further conference information and registration:*

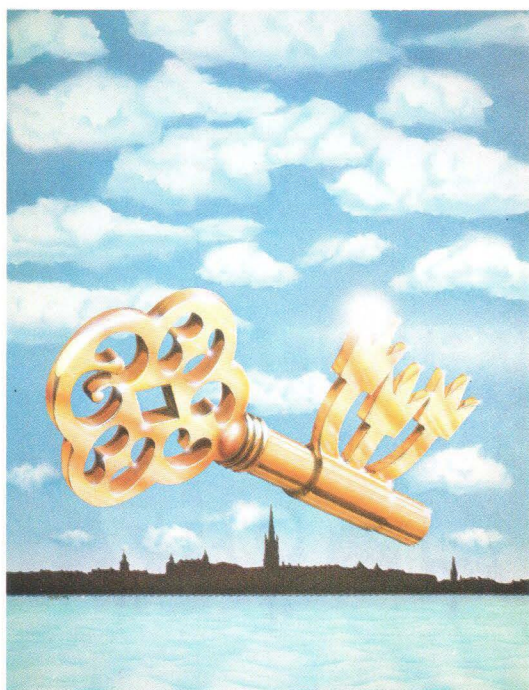
**ICDCS 87**

**c/o Hahn-Meitner-Institut, Glienicker Str. 100,  
D-1000 Berlin 39, West Germany  
Phone: + 49-30-80 09 25 41**

## Tutorials: September 21–22

- 1 Security in distributed systems
- 2 Highly available distributed systems
- 3 MAP and TOP
- 4 Real time systems and fault tolerance
- 5 ISDN and ISDN-B
- 6 Distributed databases
- 7 Parallel processing networks and systems
- 8 Distributed operating systems

1987: BERLIN CELEBRATING



Reproduced by courtesy of Stockholm Conventions Bureau

# EUROCON '88

13–17 JUNE

STOCKHOLM

## Digital Mobile Telephones

Communication Networks

Digital Signal Processing Standardisation

One-page abstracts before 1 August 1987

Further information from:

**Eurocon '88,**

**Sweden**



## Why an AFRICON workshop?

by Dr. Jacob Baal-Schem, Regional Conference Co-ordinator

A few years ago the Regional Committee accepted – on behalf of the members of IEEE in Europe and the Middle East, the inclusion of the African Continent in the region. This decision was not made easily; it came after a long discussion in which – apart from the financial problems – many matters related to this growth in responsibility became apparent. One of these was the need for a transfer of knowledge to developing countries.

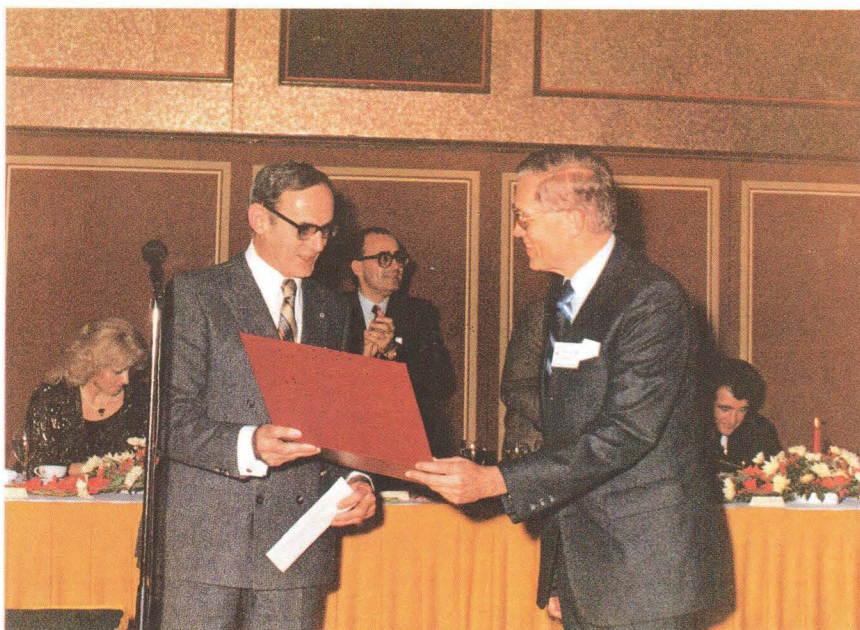
A basic aim of the IEEE is to stimulate growth and advance the state of knowledge in the field of electrical, electronic and computer engineering and science. One of the basic tools for the achievement of this aim is the conduct of meetings, conferences and workshops for the exchange of information which will stimulate technical development.

The 1000 members of IEEE in the African continent and the thousands of Engineers in these countries who are not yet members of the IEEE, have few opportunities, if any, to participate in workshops and conferences held in the US or even in the other parts of Region 8. It is therefore the duty of our organisation to bring the lectures and discussions to this developing continent and to conduct there, technical meetings and conferences on pertinent subjects.

In December 1983, the IEEE held its first African Electrical Technology Conference, AFRICON '83, in Nairobi, Kenya. More than 200 scientists and engineers, including 60 from outside Kenya, gathered in the Kenyatta International Conference Centre for three days of Keynote lectures and Technical Sessions dealing with Telecommunications and Electric power. In his closing speech, IEEE President James Owens expressed the hope that "this conference will lead to a continuing series of Africon conferences to build and maintain a high level of excellence in the electrical and communications facilities throughout Africa."

This year Region 8 has decided to hold Africon as a workshop on "The Future for the Technical and Educational Infrastructure of Africa". As stated by the Regional Director: "The objectives of the workshop will be to encourage a constructive exchange of experience and ideas, and to generate recommendations and proposals with a view to solving the problems encountered". Experts will be called upon to share their views with experienced engineers from the African countries, and Group discussions will generate proposals for improvements in the existing infrastructure and priorities for the application of newly developed technologies.

On the eve of IEEE Centennial, President Owens came to pay tribute to Africa. On the eve of our 25th anniversary, Region 8 has to deepen its connection with the southern half of its geographical area. Join us in preparing, financing and realising this workshop!



Presentation of  
Control Systems Science and Engineering Award  
to  
Professor Charles A. Desoer  
by  
Basil W. Osborne (1986 Regional Director)  
at  
Conference on Decision and Control  
in  
Athens – 11 December 1986



# ELECTRICAL & ELECTRONICS ENGINEERS CALENDAR of CONFERENCES and EXHIBITIONS in EUROPE, the MIDDLE EAST and AFRICA

No. 12

Issued by the INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS Region 8 and printed in the quarterly Newsletter sent free of charge to all IEEE members in the Region. Dr. J. Baal-Schem, the Region 8 Conference Co-ordinator is always interested in receiving information on future Conferences and Exhibitions being held in the Region. Information should be sent to him at the address given above.

May 1987

## MAY 1987

**May 4-8. CIRED - International Conference on Electricity Distribution.** Liège, Belgium  
Organiser: AIM  
Co-operating: National and Liaison Committees  
Contact: Mme. Ch. Lacrosse, c/o AIM, Rue St. Gilles 31, B-4000 Liège, Belgium.

**May 5-8. International Symposium on Protocol Specification, Testing and Verification: VII.** Zurich, Switzerland  
Organiser: IBM Zurich Research Lab.  
Sponsors: IFIP  
Contact: IFIP Protocol Symposium, IBM Zurich Research Lab., 8803 Rueschlikon, Switzerland  
Deadline: 1 February 1987 (Complete paper)

**May 11-15. CompeURO '87 - International Conference on "VLSI in Computing Systems".** Hamburg, FRG  
Organisers: IEEE Region 8, IEEE Computer Society  
Sponsors: GI, VDE  
Contact: Prof. Walter E. Proebster, IBM Deutschland GmbH, Dept. 3280, 7030-15, Schoenaicher Strasse 220, D-7030, Boeblingen, FRG  
Deadline: July 1 (Letter of intent)

**May 13-17. The 7th International Workshop on Expert Systems and their Applications.** Avignon, France  
Organiser: Agence de l'Informatique  
Contact: Mr. Jean-Claude Rault, Agence de l'Informatique, Tour Fiat Cedex 16, 92084 Paris-La Defense, France  
Deadline: 15 November 1986 (Full paper)

**May 13-15. Avignon '87 - Seventh International Workshop on Expert Systems and their Applications.** Avignon, France  
Organiser:  
Sponsors:  
Co-operating:  
Contact: Mr. Jean-Claude Rault, Avignon '87, BP 45,92193 Meudon Cedex, France  
Deadline: 6 January 1987 (Full papers)

**May 18-21. 1987 8th Computer Arithmetics.** Como, Italy  
Organiser: IEEE C  
Sponsors:  
Co-operating: AEI, IFIP  
Contact: Luigi Dadda, Dipartimento di Elettronica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

**May 27-29. IPAT 87, 6th International Conference on Ion & Plasma assisted techniques.** Brighton, UK  
Organiser: CEP Consultants Ltd  
Contact: IPAT Secretariat, CEP Consultants Ltd, 26 Albany Street, Edinburgh EH1 3QH, UK  
Deadline: 31 October 1986 (Abstracts)

**May 27-30. CSCS 7 - 7th International Conference on Control Systems and Computer Science.** Bucharest, Romania  
Organiser: Polytechnical Inst. of Bucharest  
Sponsors: Min. of Education, National Council for Science and Technology  
Contact: CSCS 7 - Polytechnical Inst. of Bucharest, Dept. of Control and Computers, 313 Spl. Independentei, 77206 Bucharest, Romania  
Deadline: 15 April 1987 (Full text)

## JUNE 1987

**June 2-4. The First IEEE National Conference on UK Telecommunications Networks - Present and Future.** London, UK  
Organiser: IEEE  
Sponsors: IERE  
Contact: IEEE Conference Department  
Deadline: 10 November 1986 (Full typescript)

**June 8-11. 1987 First IEEE International Conference on Computer Vision.** London, UK  
Organiser: IEEE C  
Contact: Dr. Aziel Rosenfeld, Center for Automation Research, Univ. of Maryland, College Park, MD 20742, USA

**June 11-17. 15th International Television Symposium.** Montreux, Switzerland  
Organiser: ITS  
Co-operating: Swiss PTT  
Contact: International Television Symposium, PO Box 97 CH-1820, Montreux, Switzerland

**June 15-18. INTELEC 87 International Telecommunications Conference.** Stockholm, Sweden  
Organiser: IEEE COM

Contact: Dr. Ted Wolpert, Ericson Power Systems, RISA AB Co, S163 81 Stockholm, Sweden

**June 17-19. NASECODE V.** Dublin, Ireland  
Organiser: IEEE ED  
Sponsors: IECEJ, IMS

Contact: Prof. John J. H. Miller, School of Mathematics, 39 Trinity College, Dublin 2, Ireland

**June 21-25. 1987 IEEE Information Theory Workshop.** Bellagio, Italy  
Contact: Prof. E. Biglieri, Dept. di Elettronica, Polit. di Torino, Corso Duca degli Abruzzi 24, I-10129 Torino, Italy

## JULY 1987

**July 1-4. CAR 87 - Computer Assisted Radiology.** Berlin, FRG  
Organiser: IEEE C

Co-operating: TUB  
Contact: Michael L. Rhodes, 2730 Pacific Coast Hwy, Torrance, CA 90505, USA

**July 27-31. 9th International Conference on Conduction and Breakdown in dielectric liquids.** Salford, UK  
Organiser: IEEE DEI  
Contact: Dr. W. G. Chadband, 91CDL, Dept. of E&E Engineering, Univ. of Salford, Salford M5 4WT, UK

## AUGUST 1987

**August 24-September 2. URSI 22nd General Assembly.** Tel-Aviv, Israel  
Organiser: Israel National Committee for Radio Science  
Sponsor: URSI

Contact: Secretariat 22nd General Assembly of URSI, POB 50006, Tel-Aviv 61500, Israel  
Deadline: 31 October 1986 (Contributed papers)

**August 24-28. 5th International Symposium on High Voltage Engineering.** Braunschweig, FRG  
Organiser: ISH  
Sponsors: VDE

Co-operating: IEEE German Section, CIGRE  
Contact: Prof. Kaerner, Technical University, Pockelstrasse 4, PO Box 329, D-3300 Braunschweig, FRG  
Deadline: 15 December 1986 (Papers)

**August 25-28. Sixth COMPUMAG Conference on the Computation of Electrical and Magnetic Fields.** Graz, Austria  
Organiser: EE Dept. Technical University Graz

Sponsors: IEEE MAG  
Co-operating: IEEE Austria Section  
Contact: COMPUMAG Secretariat, c/o Inter-convention, PO Box 80, A-1107, Vienna, Austria  
Deadline: 1 December 1986 (Short version)

## SEPTEMBER 1987

**September 1-4. ECCTD 87 European Conference on Circuit Theory and Design.** Paris, France  
Organisers: CNET, ENST, EPFL, CESTA

Sponsors: SEE, CNFRS, URSI  
Co-operating: IEEE French Section  
Contact: Dr. J. Henaff, CNET-DIT, 38 General Leclerc, F-92131 Issy-les-Mux, France  
Deadline: 1 November 1986 (Full papers)

**September 2-4. European Conference on Speech Technology.** Edinburgh, UK  
Organisers: CEP Consultants

Co-sponsors: Alvey Directorate, ESPRIT, BCS, EUREL, IA, IEE, IERE, Inst. of Physics  
Contact: Secretariat, European Conference on Speech Technology, CEP Consultants Ltd, 26 Albany Street, Edinburgh EH1 3QH, UK  
Deadline: 9 January 1987 (Abstracts)

**September 3-4. Workshop on Beam methods for High Frequency radiation, propagation and diffraction - Theory and applications.** Kiryat Anavim, Israel  
Organiser: Israel National Committee for Radio Science

Sponsor: URSI  
Contact: Beam Workshop Secretariat, POB 50006, Tel-Aviv 61500, Israel  
Deadline: 30 November 1986 (Abstracts)

**September 7-10. 17th Microwave Conference.** Rome, Italy  
Organiser: EuMC

Sponsors: Fondazione "Ugo Bordoni"  
Co-operating: IEE, EUREL, IMPI, URSI, IEEE Region 8, AP, ED, M, MTT  
Contact: Prof. F. Fedi, Fondazione "Ugo Bordoni", Via Baldassarre Castiglione 59, 00142 Roma, Italy  
Deadline: 2 March 1987 (Summaries)

**September 7-10. 1987 International Conference on Digital Signal Processing.** Florence, Italy  
Organiser: ENIC

Sponsors: EURASIP, ICST, CNR  
Co-operating: IEEE Middle and South Italy, ICESP, AIE, ANIPLA  
Contact: ENIC, Via S. Caterina d'Allessandria 12, 50129 Florence, Italy  
Deadline: 30 November 1986 (Summaries)

**September 9-11. 3rd International Conference on Fault-Tolerant Computing-Systems.** Bremerhaven, FRG  
Organiser: VDE/VDI

Sponsors: EWICS, AFCET, OCG  
Contact: Prof. Dr.-Ing. F. Belli, Hochschule Bremerhaven FB2, Columbusstrasse 2, D-2850 Bremerhaven, FRG  
Deadline: 30th January (Summary)

**September 13-17. ECOC 87 - 13th European Conference on Optical Communication.** Helsinki, Finland  
Organisers: CPEF AEEF, SEEF

Sponsor: EUREL  
Co-Sponsors: IEEE Region 8, URSI  
Contact: A. B. Sharma, ECOC 87, c/o Sanköins-inööriliitto, Merikasarminkatu 7 J 53, 00160 Helsinki, Finland  
Deadline: 9 March 1987

**September 14-16. 1987 ASSP - 5th Workshop on Multidimensional Signal Processing.** Noordwijkerhout, The Netherlands  
Organiser: IEEE ASSP

Sponsors: EURASIP  
Contact: Mrs. Y. Smits, Dept. of Electrical Eng., Delft University of Technology, PO Box 5031, 2600 GA Delft, The Netherlands

**September 14-18. 7th International Conference on Distributed Computing Systems.** Berlin, FRG  
Organiser: IEEE C

Contact: Hebert Weber, Universität Dortmund, Fachbereich Informatik Postfach 500500, 46 Dortmund 50, FRG

**September 14-16. EMMA '87 - European Magnetic Materials and Applications Conference.** Salford, UK  
Organiser: University of Salford

Sponsors: European Physical Society, UK Institute of Physics  
Contact: Dr. P. J. Grundy, Dept. of Pure and Applied Physics, Univ. of Salford, Salford, M5 4WT, UK

**September 21-25. ICDCS 87 - The 7th International Conference on Distributed Computing Systems.** Berlin, FRG  
Organiser: Hahn-Meitner Institut

Sponsor: IEEE Computer Society  
Co-operating: GI  
Contact: ICDCS 87, c/o Hahn-Meitner-Institut Berlin, Glienicke Strasse 100, D-1000 Berlin 39, FRG  
Deadline: 1 February 1987 (Papers)

**September 21-25. MIE '87 - Medical Informatics Europe '87.** Rome, Italy  
Organiser: AFMI

Sponsors: AII, Council of Europe, WHO, IMIA  
Contact: MIE 87 Secretariat, MGA Congressi, Via Pietro Cossa 41, 00193 Roma, Italy  
Deadline: 31 December 1986 (Draft versions)

**September 21-23. International Workshop on SVD and Signal Processing.** Grenoble, France  
Organiser: EURASIP

Co-operating: IEEE Region 8  
Contact: K. Jainandunsing, Dept. of EE, Delft University of Technology room 16.23 Mekelweg 4, 2628 CD Delft, The Netherlands  
Deadline: 15 March 1987 (Summary)



**September 22-25. International Conference on Electric Railway Systems for a new Century.** London, UK  
Organiser: IEE  
Co-operating: IME, IRSE, ICE  
Contact: IEE Conference Department  
Deadline: 30 March 1987 (Full typescript)

**September 22-24. EPE - European Conference on Power Electronics and Applications.** Grenoble, France  
Organiser: LEG Grenoble  
Contact: EPE Secretariat, CCI, 1 place Andre Malraux, BP 297-30816 Grenoble Cedex, France  
Deadline: 15 December 1986 (Summaries)

**September 23-25. ESSCIRC '87 - 13th European Solid-State Circuits Conference.** Bad Soden, FRG  
Organiser: VDE  
Co-operating: IEEE Region 8, EUREL, IEE  
Contact: Dr. G. Albert, TH Darmstadt, Institut für Halbleitertechnik, Schlossgartenstr. 8, D-6100 Darmstadt, FRG  
Deadline: 1 April 1987 (Abstracts)

**September 28-29. 1987 International Workshop on Control Systems in Energy Applications.** Madrid, Spain  
Organiser: IEEE IE  
Contact: Prof. F. Aldana, Universidad Politecnica de Madrid, Dpto. Ing. Elect. Jose Gutierrez Abascal 2, 28006 Madrid, Spain

**September 29-October 2. Fifth International Symposium on Data Analysis and Informatics.** Versailles, France  
Organiser: INRIA  
Sponsors: ASU, ISI  
Co-operating: IASC, IFCS, GMFISI, RSS  
Contact: INRIA, Service des Relations Exterieures, Domaine de Voluceau-BP 105, 78153 Le Chesnay Cedex, France  
Deadline: 5 November 1986 (Summaries)

#### OCTOBER 1987

**October 6-8. Journees d'Electronique de l'EPFL on "Application Specific Integrated Circuits".** Lausanne, Switzerland  
Organiser: EPFL  
Co-operating: IEEE Switzerland Section, IEEE Region 8, EUREL, GESO, ASE-ITG  
Contact: Secretariat des Journees d'Electronique EPFL, 16 Chemin de Bellerive, CH-1007 Lausanne, Switzerland

**October 6-7. YUTEL 1987 - 21st Symposium on Telecommunications.** Ljubljana, Yugoslavia  
Organiser: YUTEL  
Co-operating: YUTEL, EZS, Titova 50, 61000 Ljubljana, Yugoslavia  
Contact: 31 March 1987 (Abstract)

**October 12-15. Sixth International Conference on Automotive Electronics.** London, UK  
Organiser: IEE  
Co-operating: IERE, IMC, IEEE VT, JMIF, VDE, SMR, SER, SAE, SEE, IP, AEI  
Contact: IEE Conference Department  
Deadline: 6 January 1987 (Synopsis)

**October 13-15. '87 ICAR - Third International Conference on Advanced Robotics.** Versailles, France  
Organiser: INRIA  
Sponsors: AFRI, MRES  
Contact: INRIA, Service des Relations Exterieures, Domaine de Voluceau-Rocquencourt-BP 105, 78153 Le Chesnay Cedex, France  
Deadline: 15 June 1987 (Final papers)

**October 19-21. RADAR 87,** London, UK

Organiser: IEE  
Sponsors: IEEE AES, EUREL  
Co-operating: IMA, RIN  
Contact: IEE Conference Department  
Deadline: 23 January 1987 (Synopsis)

**October 22-27. FORUM 87 - 5th World Telecommunication Forum Technical Symposium on "Telecommunication Services for a World of Nations".** Geneva, Switzerland  
Organiser: ITU  
Contact: Forum 87 Secretariat, International Telecommunications Union, CH-1211 Geneva 20, Switzerland  
Deadline: September 1 1986 (Summaries)

#### NOVEMBER 1987

**November 10-12. Third International Conference on Electrical Machines and Drives.** Birmingham, UK  
Organiser: IEE  
Co-operating: IEEE UKRI Section, IME  
Contact: IEE Conference Department  
Deadline: 27 February 1987 (Synopsis)

**November 15-18. Global Telecommunications Conference.** Tokyo, Japan  
Sponsors: COMSOC, ICEJ  
Contact: (Europe, Africa and Middle East) Dr. F. Tosco, CSELT, Via Reiss Romoli 274, 10148 Torino, Italy

**November 16-20. International Symposium on the Technologies for Optoelectronics.** Cannes, France  
Organisers: ANRT, SPIE  
Sponsors: Nine associated bodies  
Contact: Judith Prado, Cannes Conference Co-ordinator ANRT, 16 avenue Bugeaud, 75116 Paris, France  
Deadline: 27 April (Abstracts)

**November 30-December 2. AFRICON '87 - International Workshop on Future Development of Technological and Educational Infrastructure in Africa.** Abidjan, Ivory Coast  
Organiser: IEEE Region 8  
Co-operating: African Development Bank, ITU  
Contact: Dr. H. Ruechardt, Siemens AG, Balenstr. 73 D-8000 Munich 80, FRG

#### MARCH 1988

**March 9-10. 10th International Zurich Seminar on Digital Communications.** ETH Zurich, Switzerland  
Organiser: IEEE Switzerland Chapter on Digital Communications  
Co-operating: IEEE C and COM, IEE, Eurel and ten other bodies  
Contact: Secretariat IZS 88, c/o P. Günzburger, Hasler AG TDS, Belpstrasse 23, CH-3000 Bern 14, Switzerland  
Deadline: July 31 1987 (draft)

**March 9-11. Computer Architecture and Operating Systems.** Paderborn, FRG  
Organisers: ITG, VDE, GI  
Co-operating: IEEE German Section  
Contact: Prof. Dr. F. J. Ramming, Univer.-GH Paderborn, FB Mathematik/Informatik, Warburger Str. 100, 4790 Paderborn, FRG  
Deadline: 17 July 1987 (Full paper)

#### APRIL 1988

**April 13-15. CONTROL 88.** Oxford, UK  
Organiser: IEE  
Co-operating: IEEE UKRI Section, IMA, IMC, IP, IERE, IME, ISA  
Contact: IEE Conference Department  
Deadline: 28 August 1987 (Synopsis)

#### JUNE 1988

**June 7-9. 1988 IEEE International Symposium on Circuits and Systems.** Helsinki, Finland  
Organiser: IEEE CAS  
Co-operating: IEEE Finland Section  
Contact: Dr. Markku Renfors, Tampere University of Technology, PO Box 527, SF-33101 Tampere, Finland  
Deadline: 1 October 1987 (Summary)

**June 7-9. 1988 IEEE International Symposium on Circuits and Systems.** Helsinki University, Espoo, Finland  
Organiser: IEEE CAS  
Sponsor: IEEE Finland Section  
Contact: Dr. Jorma Skytta, Helsinki University of Technology, Dept. of Technical Physics, SF-02150 Espoo, Finland

**June 13-17. EUROCON '88 - Eighth European Conference on Electrotechnics.** Stockholm, Sweden  
Organisers: SER, IEEE Sweden Section  
Sponsors: IEEE Region 8, EUREL  
Contact: EUROCON '88, c/o Stockholm Convention Bureau, PO Box 6911 S-102 39, Stockholm, Sweden  
Deadline: 1 August 1987 (Abstracts)

#### SEPTEMBER 1988

**September 5-8. EUSIPCO 88 - Fourth European Signal Processing Conference.** Grenoble, France  
Organiser: EURASIP  
Contact: N. Martin, CEPHAG-ENSIEG, BP 46, 38402 St. Martin d'Heres Cedex, France

**September 23-27. IBC 88 - International Broadcasting Convention.** Brighton, England  
Organiser: IEE  
Sponsors: IABM, IEE, IEEE, IERE, RTS, SMPTE  
Contact: IEE Conference Department

#### OCTOBER 1988

**October 30-November 3. ICCS '88 / 9th International Conference on Computer Communication.** Tel-Aviv, Israel  
Organiser: ICCS  
Contact: Secretariat ICCS '88, PO Box 50006, Tel-Aviv 61500, Israel

#### APRIL 1989

**April 11-13. MELECON '89 - Mediterranean Electrotechnical Conference.** Lisbon, Portugal  
Organisers: IEEE Region 8, IEEE Portugal Section  
Sponsors: Orden dos Engenheiros, CEATUL  
Contact: Prof. de Medeira Silva, Instituto Superior Tecnico, Av. Rovisco Pais, 1096 Lisboa Codex, Portugal  
Deadline: 15 June 1988 (Summaries)

**April 25-29. ICASSP 89 - International Conference on Acoustics, Speech and Signal Processing.** Glasgow, Scotland, UK  
Organiser: IEEE ASSP  
Contact: Prof. T. S. Durrani, Univ of Strathclyde, Dept of EE, Royald College Bldg, 204 George St, Glasgow G1 1XW, Scotland, UK

#### MAY 1989

**May 8-12. CIRED - International Conference on Electricity Distribution.** Brighton, UK  
Organiser: IEE  
Co-operating: National and Liaison Committees  
Contact: IEE Conference Department

#### EUREL Acronyms:

**A** - Austria  
**OVE** - Österreichischer Verband für Elektrotechnik  
**B** - Belgium  
**SRBE** - Société Royale Belge des Electriciens  
**AIM** - Association des Ingenieurs Electriciens sortis de l'Institut Electrotechnique Montefiore  
**CH** - Switzerland  
**SEV/ASE** - Schweizerischer Elektrotechnischer Verein/Association Suisse des Electriciens  
**D** - Germany  
**VDE** - Verband Deutscher Elektrotechniker  
**DK** - Denmark  
**IS** - Ingenior-Sammenslutningen I-VD

**DIF'sE-Gr** - Elektroingeniorgruppen (in Dansk Ingeniorforening)

**E** - Spain  
**AEE** - Asociación Electrotécnica Española  
**F** - France  
**SEE** - Société des Electriciens, des Electroniciens et des Radioelectriciens

**GB** - Gt. Britain  
**IEE** - Institution of Electrical Engineers  
**IERE** - Institution of Electronic and Radio Engineers

**I** - Italy  
**AEI** - Associazione Elettrotecnica ed Elettronica Italiana

**N** - Norway

**NEF** - Norsk Elektroteknisk Forening

**NL** - Netherlands  
**KIVI** - Koninklijk Instituut van Ingenieurs, Afd. Elektrotechniek

**NERG** - Nederlands Electronica-en Radiogenootschap

**P** - Portugal  
**-** - Conselho Directivo Nacional/Ordem dos Engenheiros - Department Electrical Engineers

**S** - Sweden  
**SER** - Svenska Elölkroingenjörers Riksförening

**SF** - Finland  
**-** - Aatteellisten sähköinsinöörijärjestöjen neuvottelukunta



## IEEE Society Acronyms:

ASSP	- Acoustics, Speech, and Signal Processing	EI	- Electrical Insulation	OE	- Oceanic Engineering
AES	- Aerospace and Electronic Systems	EMC	- Electromagnetic Compatibility	PE	- Power Engineering
AP	- Antennas and Propagation	ED	- Electronic Devices	PC	- Professional Communications
BT	- Broadcast Technology	EM	- Engineering Management	PEC	- Power Electronics Council
CAS	- Circuits and Systems	EMB	- Engineering in Medicine and Biology	QEA	- Quantum Electronics and Applications
CE	- Consumer Electronics	GRS	- Geoscience and Remote Sensing	R	- Reliability
COM	- Communications	IE	- Industrial Electronics	RA	- Robotics and Automation
CHMT	- Components, Hybrids, and Manufacturing Technology	IA	- Industry Applications	SIT	- Social Implications of Technology
C	- Computer	IT	- Information Theory	SSC	- Solid State Circuits
CS	- Control Systems	IM	- Instrumentation and Measurement	SU	- Sonics and Ultrasonics
E	- Education	MAG	- Magnetism	SMC	- Systems, Man, and Cybernetics
		MTT	- Microwave Theory and Techniques	VT	- Vehicular Technology
		NPS	- Nuclear and Plasma Sciences		

## Mailing Addresses

IEEE Region 8 Conference Coordinator - Dr. J. Baal-Schem, P.O.B. 1205, Holon 58112, Israel.  
 IEEE Conference Department, Savoy Place, London, England, WC2R 0BL Telephone 01-240 1871  
 (Ext. 222). International +44 1 240 1871 Telex 261176  
 IEEE Conference Activities, 345 East 47th Street, New York, NY 10017, USA.  
 IERE Conference Secretariat, 99 Gower Street, London WC1E 6AZ, Telephone 01-388 3071  
 International +44 1 388 3071. Telegrams: Intrad London England WC1E 6AZ.

## You Might Wish To Know

In preparation for the Region 8 25th Anniversary, the UKRI Section will hold a specialist workshop on the safety and security of engineering systems. Probable date will be May 1988 in London. A small and distinguished group of experts from Region 8 will be invited to discuss the security and safety aspects of technology and their impact on society. Cosponsorship by the IEE has been invited. It is hoped to win further supporters and sponsors from industry and government agencies.

Rumania has established a new Section in Development. A Hungary Section and a United Arab Emirates Section have come close to their official formation; recognition by the Board of Directors is expected at its next meeting in June.

An effective reduction of IEEE membership subscriptions for most members of Region 8 has occurred as a consequence of the recent strong dollar devaluation. Its effect, in comparison with previous years, is to reduce funds available for activities within the Region; at its March meeting in Rome the Region 8 Committee discussed the matter and proposed adequate measures to resolve this problem for the future.

A special Conference Committee has been established by the Region 8 Committee as part of a new "Policy and Procedures" document dealing with conferences as a whole. Chaired by the Conference Co-ordinator, Dr. Jacob Baal-Schem, it will have as its members Dr. Kurt Richter and the Regional Treasurer Dr. Rolf Remshardt. It will recommend measures to alleviate the task of the Regional Director and consider the problems associated with supervising and controlling all Regional Conferences; it will also propose strategies for a future Regional Conference structure.

**J.U.K.E.M. '86.** This biennial symposium is organised by the Association of Yugoslav Measuring Technique Societies; last year it was held in Belgrade from 29-31 October. The introductory papers dealt with:

Development plan of the Federal Institute for Measurement.

The theory and practice of physical quantities and measuring units.

Innovations and measuring technique.

Execution of the measuring units and measures Acts.

Information systems in the metrology field.

The general papers were on measurements in the following fields:

Length; Geodesy; Time; Level, Volume and Flow; Mass, Pressure, Temperature, Heat, Magnetic and Electric Quantities, Laser, Ionising Radiations, Photometry.

There were some 400 attendees and the Proceedings have been published. The 1988 Symposium will take place in SR Croatia. Information from Mr. Rudi Zorko, ISKRA KIBERNETIKA KRANJ, Savska Ioka 4, 64001 Kranj, Yugoslavia.

The IEEE 1987 Membership Directory (JH78303) is about to be published. It contains information on more than 230,000 Members and Affiliates in over 130 countries. To IEEE members its cost is \$47 and it may be ordered from the IEEE Service, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 0885-1331 + postage and packing \$4.00.

## IEEE Centre for the History of Electrical Engineering

by Mr. Robert C. Winton, Chairman Long Range Planning Committee

The IEEE Centre for the History of Electrical Engineering is situated at IEEE Headquarters in New York city; it is a little-known part of IEEE activities. It could nevertheless be of considerable service to members who need information on the comparatively short but immensely fast-moving history of electrical, electronic, and computer engineering and science.

The Centre has four principal activities. It provides historical information from its own archives, and also about records held elsewhere; it publishes a newsletter, guides to records and historical items, reports on specific projects, and educational material. It is responsible for the publication of a Manual for Electrical Engineering Milestones programme, which recognises important electrical and electronics events; on request it undertakes specific projects concerning particular themes or events. The Centre has advised individuals on placing their manuscript collections in repositories and answered numerous questions from engineers, historians, the media and the general public, for information and photographs concerning the history of electrical engineering.

The work of the Centre can be supported by becoming a Friend, for an annual subscription of \$25. Write to Dr. Ronald R. Kline, Director of the Centre for the History of Electrical Engineering, 345 East 47th Street, New York, N.Y. 10017, U.S.A.

## Africon Workshop '87

Abidjan, Ivory Coast, 30 November-2 December 1987

The Ivory Coast, a country where many ways meet and dialogue is the tradition, has been chosen for an IEEE International workshop on The Future Development of the Technological and Educational Infrastructure in Africa. It will be organised by Region 8 in co-operation with other international professional organisations and under the High Patronage of the Ministry of Industry of Ivory Coast.

The programme will include plenary sessions on the present facilities and future requirements in Telecommunications, Power and Technical Education, and on the State of the art in these subjects. Most of its time will be spent on group discussions, in order to define both long-term goals to rank short-term implications and to formulate recommendations for future steps in the development of a suitable infrastructure. It is intended to relate these recommendations to the results from former international conferences and symposia.

Africon '87 will be held in the picturesque city of Abidjan, at the Hotel Ivoire, where all modern services are available and which has served as the venue for many United Nations conferences.

International, National and Industrial organisations are requested to sponsor the workshop financially. Their sponsorship will be recognised in the workshop publications and they will be encouraged to exhibit professional material on the workshop premises.

No fee will be requested from workshop participants but they will be required to cover their travel and accommodation expenses (some of the expenses might be covered by cosponsoring bodies).

For additional information please contact: Dr. H. Ruechardt, Siemens AG, Balanstr. 73, D-8000, Munich 80, FRG.



# GO STRAIGHT TO THE GENEVA SUMMIT

5th World Telecommunication Forum and Exhibition, 20-27 October 1987, Geneva (Switzerland)



**T**he World Telecommunication FORUM is recognized as the quadrennial Summit of decision makers of all fields of telecommunications, planners, scientists, engineers, lawyers, economists, investors and users. Since FORUM 83, rapid changes in technology, industry, economy, policy and international regulation have moulded an entirely different telecommunication environment opening up new areas for development and market opportunities. At FORUM 87, delegates will have a chance to discuss these new challenges with such distinguished personalities as US District Court Judge Harold Greene, whose recent rulings will have a radical effect on the future of telecommunications.

**PART I — Executive Telecommunication Policy Symposium.** (19-22 October) the world's pre-eminent telecommunications leaders will address today's issues.

**PART II — Technical Symposium.** (22-27 October) co-sponsored by more than 50 national and supranational Engineering Societies.

**PART III — Legal Symposium.** (21-23 October) in cooperation with national and international Bar Associations.

**PART IV — Symposium on Economic & Financial Issues of Telecommunications.** (22-24 October) an exchange of ideas between international economists, financiers and researchers.

**PART V — Symposium on Regional Network Development & Cooperation.** (26-27 October) a meeting of planners from 5 continents.

Until 15 September 1987, we are offering a single registration fee of 1200 Swiss francs (a saving of almost 1000 SF) for participation in all 5 Parts of the FORUM 87.

**forum87**

Send to: International Telecommunication Union (ITU) TELECOM/FORUM Secretariat — Place des Nations — CH-1211 Geneva 20 (Switzerland)



Name: \_\_\_\_\_ Title: \_\_\_\_\_

Administration, Organization or Company: \_\_\_\_\_

Address: \_\_\_\_\_

- ☐ I wish to benefit from your special registration package offer for FORUM 87 which includes: — Participation at FORUM Parts I-V  
— Admission to TELECOM 87  
— Books of Speakers' Papers for Parts I-V

Date: \_\_\_\_\_

- ☐ I am interested in receiving further information on FORUM Parts I-V.

- ☐ Please send me an order form for the Books of Speakers' Papers.

Signature: \_\_\_\_\_



Alternative  
Energy Systems

# melecon'89

Wide Band  
Communications

## MEDITERRANEAN ELECTROTECHNICAL CONFERENCE

Telecommunications  
Electronics

LISBON, PORTUGAL – FORUM PICOAS  
April 11, 12, 13, 1989

Engineering  
Education

Melecon '89 Secretariat, Centro de Electrónica Aplicada,  
I.S. Técnico, AV. Rovisco Pais, 1096 Lisboa Codex, Portugal. Telex 63423 ISTUTL P

### PRACTICAL PROBLEM SOLVING

London 1987

**Introductory Workshop July 1 – 3**

**Practice Sessions July 6 – 10**

Further information:

Dr. H. A. Shearring

IMODI Ltd

P.O. Box 143

Douglas, Isle of Man

British Isles

Telex: 629748 MANX G

### THREE-DAY INTENSIVE COURSE on DIGITAL COMMUNICATIONS:

SATELLITE/EARTH STATION, TERRESTRIAL  
MICROWAVE, CABLE & MOBILE RADIO SYSTEMS

**Presented by DR. KAMILO FEHER**

Professor, University of California, Davis;  
Director, Consulting Group, DIGCOM, Inc.

**6th–8th JULY 1987**

*Who should attend?* Engineers, scientists and managers involved in research, design and development, production, operation and marketing of modern digital communication equipment and systems. Individuals who desire to become knowledgeable in this challenging field.

**For further details contact: The Course Organiser, Communications Research Group, Department of Electronic & Electrical Engineering, King's College London, Pulton Place, London SW6 5PR. Tel. 01-736 1244 Ext. 237.**

### THE CITY UNIVERSITY, LONDON, ENGLAND



### MSc/Diploma Programme in INFORMATION ENGINEERING

A one-year course  
with major specialisations in  
CONTROL ENGINEERING  
MEASUREMENTS AND INSTRUMENTATION  
ELECTRONIC DIGITAL SYSTEMS  
ROBOTICS, SENSING AND CONTROL  
MEASUREMENT AND INFORMATION IN MEDICINE

*Opportunities for research also available*

Application forms and information are available from:  
The Senior Tutor (Postgraduate Course),  
School of Electrical Engineering and Applied Physics,  
The City University,  
Northampton Square, London, EC1V 0HB  
Telephone: 01-253 4399 (Ext. 3823)  
Telex: 263896

### REGION 8 NEWS DEADLINE & ADVERTISING RATES

Edition	February	May	August	November
News to Editor	January 1	April 1	July 1	October 1
Advertisements to Editor	January 1	April 1	July 1	October 1
Inserts to Printers	January 15	April 15	July 15	October 15

Printers: Seven Corners Press, Woodbridge Meadows, Guildford, Surrey, England, GU1 1BL.

Payment in Sterling banker's draft to the Editor:

Dr. G. H. Byford, "Sandstones", Crooksbury Road, Runfold, Farnham, Surrey, England GU10 1QB.

A4 Full Page Colour	£1200	Colour Separation
Half	650	Film supplied
Quarter	400	by the Client
A4 Full Page Black & White	£1000	Camera-ready
Half	600	Copy supplied
Quarter	350	by the Client

Colour separation Film, or Black and White Layout, can be supplied  
(Costs on receipt of copy) Further details from the Editor

### BACK PAGE MINI BOXES

6 × 4cm – £60/box

9 × 4cm – £90/box


Blue, Green or Red Border + one coloured line of text per box.

**INSERTS** distributed to 18,000 members – Less than 10gm £1200  
20gm 1700  
30gm 2000

Payment to the Editor:

Dr. G. H. Byford, "Sandstones", Crooksbury Road, Runfold, Farnham, Surrey, England GU10 1QB.