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# TTTT REGION 8 MEWS GILLER



### THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

INCORPORATED

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# **INSTITUTE NEWS**

Travels of the President

First non-US President since Merger, Robert Tanner throughout his 1972 administration has paid special attention to non-US members, having made three extensive trips: the first around the Mediterranean, the second around the world, the third around Latin America. At each place he met as many IEEE members as possible, including Section officers. He says: "The embarrassingly warm reception convinced me that IEEE stands in very high regard among our far-flung membership.... Specific local problems were investigated and I feel confident that I am now in a much better position to advise our Directors on the best course of action in each case . . . . The fact that I was accompanied by my wife resulted in many mixed gatherings of members and their wives, leading to greater understanding and tolerance. The enthusiasm generated may have far-reaching effects . . . I believe it important that every President visit some non-US Sections on a planned basis so that over a period of five or six years they are all covered."

**Funding Technical Services** 

In September the Board of Directors reassured members outside the United States that *no portion* of the \$5 general dues increase in Regions 7 to 10 will be applied to US professional activities, but will be entirely devoted to traditional services of IEEE.

Procedures Changed for Nominating Fellows

As from 1973 nominations are to use changed sponsorship forms and methods. For any members intending to make proposals, Jack Ryder, the Chairman of the 1972/73 Fellow Committee, has written a four-page explanation of the position. Copies were sent to the Officers of your Section at the end of last year. A two-page more formal statement accompanied this, and it ended by saying that the "Guide for IEEE Fellow Grade Nominations" could be obtained from Emily Sirjane at Headquarters in New York.

**IEEE Regional Oustanding Lecture Tours** 

Although members in Region 8 will naturally think primarily of interchange between Europe and the US, Peter Edmonds at Headquarters in New York reports that there is a continuing need for advance information on travel plans of potential speakers going to or coming from other countries, so that IEEE Sections can be notified in sufficient time to schedule a meeting compatible with the speaker's itinerary, announce it and assemble an audience. Information (even if tentative) should be sent to him three months in advance of departure. A proven

mechanism exists for arranging engagements in Europe. Interest in receiving speakers has been expressed by IEEE Sections in Hong Kong, India, New Zealand and Australia.

The Harry Diamond Memorial Award

The requirements of this Award have been broadened to include people in the field of Government service in any country where there is an IEEE Section. Prior recipients were restricted to those serving in the US Government. The Award is to a person serving a Government for outstanding technical contribution, as evidenced by publication in professional society journals.

IEEE Membership Infomation and Services

A new edition of this publication is now available. It tells about our various member grades, programs and organisational makeup. It even includes a membership application. (Copies from Emily Sirjane at Headquarters, New York.)

Mark your Calendars

EEE Headquarters will be closed on the following holidays: Memorial Day (28 May); Independence Day (4 July); Labor Day (3 September); Columbus Day (8 October); Thanksgiving (22-23 November); Christmas (24-25 December) and New Year (31 December, 1 January).

IEEE Medal of Honour

This Medal was given to Dr. Kompfner for "his major contribution to world-wide communication through the conception of the travelling wave tube embodying a new principle of amplification". The Medal is awarded for a particular contribution which forms a clearly exceptional addition to the science and technology of concern to the Institute.

Dr. Kompfner invented the travelling wave tube in 1943. At the time, he was working under Prof. M. L. Oliphant at Birmingham University. In 1960, to honour Dr. Kompfner for his invention, the IEEE presented him with the David Sarnoff Award, and the Franklin Institute (Philadelphia) selected him to receive the Stuart Ballantine Medal. He holds 55 patents in electronics and radio, and has authored many technical articles in microwave electronics and satellite and optical communications.

From 1944 to 1951 he worked at the University of Oxford, where he received a Ph.D. Degree. Since 1951 he has been employed by Bell Laboratories and currently holds the position of Associate Executive Director, Research - Communications Sciences Division, Holmdel, New Jersey, USA. A Fellow in the IEEE, and the Physical Society in London, he is also a member of the National Academy of Engineering and the National

#### NON-PAYMENT OF DUES-1973

Standard procedure is for Headquarters to remove from their lists the names of all those who have not paid their dues by 28 February. By special arrangement, this Newsletter is being sent to all 1972 members in the Region so that any member who has overlooked his 1973 payment may make it immediately. If he does so his membership will continue without interruption, but if he does not it will be necessary to make application for reinstatement. Any member who has deliberately decided not to renew his membership is particularly requested to write to his Section Chairman to say why, and to suggest any activities which could have been organised for him by the Section which would have avoided his reaching this decision. Where a member does not have available the address of his Section Chairman, the Editor will provide this or will forward a letter.

Academy of Sciences. He holds Honorary Doctorate Degrees from the Technische Hochschule of Vienna and Oxford Univer-

Presentation of Edison Medal

The Edison Medal was presented, on 27 March 1973 in New York, to Dr. B. D. H. Tellegen. He won the Award for creative career of significant achievement in electrical circuit theory, including the gyrator". The Edison Medal, established in 1904, is awarded annually to a member of the IEEE for a career of meritorious achievement in electrical science, electrical engineering or the electrical arts.

Dr. Tellegen was born in 1900. After receiving a Degree of Electrical Engineering from the Technical University Delft, Netherlands, he went to work for Philips Research Laboratories in Eindhoven. He retired in 1962 after 38 years of service. A Fellow of the IEEE, Dr. Tellegen is also an Honorary Member of the Netherlands Radio Society, and an Honorary Life Member of the Institution of Radio Engineers, Australia.

## **PUBLICATIONS AND COURSES**

Special Issues of "Proceedings of the IEEE"

The Editors plan to publish five or six special issues each year devoted to current fields of interest. Planned for this year are issues on high-power microwave tubes, ground transportation for the Eighties, new materials for display devices, radio and radar astronomy, and minicomputers.

Special Issues of "Tranactions"

The IEEE "Transactions on Microwave Theory and Techniques" is planning to devote a special issue to computeroriented microware practices (COMP), to be published in March 1974. This will, it is hoped, focus on modelling of active and passive devices for use in computer-aided design. This topic encompasses the solution of field problems as well as circuitoriented work and measurements.

Papers and short papers reporting new and significant developments in COMP are solicited. Computer program descriptions are also solicited. Contributions are solicited in the following areas, but need not be limited to them: - 1. Modelling (active and passive microwave devices, including solution of field problems, e.g., diodes, transitors, waveguides, junctions, etc.); 2. Analysis (general or special-purpose network analysis programs, incorporating microwave circuit elements and models); 3. Optimisation (new algorithms, new applications of existing algorithms); 4. Sensitivity (efficient computation of sensitivities for optimal design, tolerance analysis and optimisation, etc.); 5. Measurements (integration of automated microwave measurements with design, measurements for device modelling, etc.); 6. Program descriptions.

Length and style for papers and short papers should conform to the "Information for Authors" published in the "Transactions". Computer program descriptions should conform to the "Information on Computer Program descriptions" also published in the "Transactions". Three copies of each complete manuscript should be submitted for review not later than 2 July 1973 to the Guest Editor, Dr. J. W. Bandler, Department of Electrical Engineering, McNaster University, Hamilton, Ontario, Canada. Further information can also be obtained from the Associate Guest Editor, Dr. D. Varon, Raytheon Company, 528 Boston

Post Road, Box 1R5, Sudbury, Massachusetts 01776, USA. Papers are being sought for a special issue of the "G-MTT Transactions" scheduled for publication in June 1974, which will provide component requirements for array antenna systems, and engineering design principles for both ferrite and diode phase elements. Both theoretical and experimental papers are desired. It is expected that this special issue will cover a variety of topics including component requirements for array antennas, reciprocal and non-reciprocal ferrite phasers, diode phasers, and fabrication techniques. Papers considering low cost fabrication techniques are viewed as particularly relevant.
Specific topics are suggested below, but other topics are not

excluded if related to this general subject-matter — 1. Component requirements for radar, communications and ECM antenna arrays; 2. Non-reciprocal ferrite phasers and drivers; 3. Reciprocal ferrite phasers and drivers; 4. Diode phasers and drivers; 5. MIC-ferrite and MIC-diode phasers; 6. Fabrication techniques; 7. Material considerations; 8. Special control components for use in array antenna systems. Papers should be submitted in triplicate to the Guest Editor before 1 September 1973: Dr. L. R. Whicker, Code 5250, Naval Research Laboratory, Washington DC 20390, USA.

New Material from the IEEE Press
Just published is "Literature in Digital Signal Processing: Just published is "Literature in Digital Signal Processing: Terminology and Permutted Title Index". Sponsored by the Audio and Electroacoustics Group, it brought together material otherwise found in many different places. Other recent IEEE Press offerings include material on laser theory and integrated optics. A descriptive brochure is available for the asking, from Reed Crone at Headquarters in New York.

#### New Cassettes

Two new cassettes are now available from IEEE Soundings at Headquarters in New York. The first is on minicomputers and, edited by Dr. W. Beam, costs \$7 for members. The other, "Cable TV—Now and the Future", analyses the present status and the future potential of this new communications medium. Five subjects are covered by five speakers in an 87 - minute running time. The cost to members is also \$7.

# **REGION 8 NEWS**

Following the successful Eurocon '71 held in Lausanne in October 1971 at which more than 1100 people participated, the Region is organizing a second conference to be held in Amsterdam in April 1974 - Eurocon '74. This time the conference is being run in a partnership between Region 8 and the Convention of West European Engineering Societies, a new organization consisting of a grouping of 13 electrical engineering societies who have come together to co-operate on conferences and other matters of common interest. In agreement with the Convention, the full title of the conference will be "European Conference of Electrotechnics— Eurocon '74". The conference theme is "the engineer in society" and five streams will run simultaneously through the conference sessions. These will be on: Controlling the Future; Instrumentation Electronics; Communications for the 1980's; A Computerized Society; and, Bio-medical Engineering.

Of immediate importance is the Call for Papers. Although the conference is not being held until April 1974, it would be appreciated if members would think about this now and bring it to the attention of, and talk about it to their colleagues. Please refer to the enclosure with this issue.

# ADVERTISEMENTS FOR THE NEWSLETTER

The funds of Region 8 are no longer sufficient to allow the costs of the Newsletter to be met despite these having been reduced to a commendably low level. Contributions have, therefore, had to be sought from Sections. To reduce the call on Region and Section funds to the absolute minimum, all members are asked to seek advertising for insertion in the Newsletter. The European Advertising Agents for "Spectrum" have agreed to act for the Newsletter as well, and details of the charges are shown in the accompanying box.

#### ADVERTISING RATES

Display £130 per full page £70 per ½ page £40 per 1 page

Special Section for Appointments/Professional Services/ Publications—£30 per 1/8 page to include setting Inserts supplied by advertiser—charges based on page rate

For further information contact the Advertising Representatives:

Sweatman & Fordham, Byron House 7 St. James' Street, London SW1, England (Telephone 01-930 3637. Telex 262821)

As well as the above themes, the conference will also feature a series of tutorial papers which will enable participants who are not specialists in any particular field (but who have interests in other fields of electrical engineering or electronics) to follow a series of papers on a subject of interest to them throughout the conference — a conference-within-a-conference.

**IEEE Field Awards** 

Among the nine Awards announced at the end of 1972 was the following:— The IEEE Award in International Communication, in honour of Hernand and Sosthenes Behn, which honours outstanding contribution in the field of international communication, will go to Frank de Jager and Johannn A. Greefkes, for

"their contributions to communication systems research, in particular for their inventions in the delta-modulation area Mr. Greefkes began his electronics career at N. V. Amsterdam, in 1933. Five years later he joined Philips Tele-communication Industry. In 1946 he became Senior Engineer at Philips Research Laboratories. That was the same year that Mr. de Jager, receiving his electrical engineering Degree, also joined the same firm. In 1958 the two men received the Verder Award for improvements in the transmission of speech at a low signal-to-noise ratio. In 1964, Mr. de Jager was appointed Senior Engineer, Mr. Greefkes retired from Philips in 1972 and is currently a faculty member in the Telecommunications Department of the Eindhoven University of Technology.

# **MEETINGS IN REGION 8**

First International Conference on Electronic Crime Counter-

Papers are invited for this Conference, to be held from 18-20 July 1973 in Edinburgh, Scotland, Great Britain, Principal emphasis will be placed on technological developments in electronics and allied fields as applied to law enforcement, security and crime prevention. Papers directed toward research, laboratory developments, new equipment, police systems and related subjects are solicited. Sessions at the Conference will be organised under the categories of crime identification, detection and alarm systems, criminal surveillance, police and security management systems, and communications. This Conference will provide a forum for users, developers and manufacturers to review state-of-the-art techniques in this specialised area. Conference Proceedings will be published and distributed to each attendee, as well as selected libraries throughout the world. Abstracts were required by February 1973, with papers (photo ready) by 30 April 1973. Write to J. S. Jackson, Conference Chairman, Electrical Engineering Department, University of Kentucky, Lexington, Kentucky 40506, USA.

1973 International Symposium on Information Theory

This Symposium will be held in Ashkelon, Israel, from 25-29 June 1973. It is one of a series of symposia sponsored by the IEEE's Information Theory Group. A meeting is held every yearand-a-half, alternating between a US and a non-US location. The last two meetings were held respectively in Pacific Grove, California (January 1972), and Noordwijk, the Netherlands (June 1970).

In the past we have been very fortunate in that we have succeeded in attracting papers and participants of the very highest calibre, and we are hopeful that the 1973 Symposium will be as successful as its predecessors. As you may know, 1973 will mark the 25th anniversary of the publication in 1948 of C. E. Shannon's classic paper "A Mathematical Theory of Communication", which founded information theory. This event will be appropriately commemorated by special technical sessions and other events in Ashkelon.

The choice of Israel as the location for this year's Symposium was motivated in part by the substantial local interest in our subject. We expect that Israel's convenience to Europe will make possible substantial participation by Europeans. Ashkelon is a resort town on the Mediterranean, about one hour's drive south from Tel Aviv, and one hour's drive west from Jerusalem. It is hoped that the choice of this site will make possible the relative isolation which has contributed so much to the success of previous symposia in this series. The meeting will take place

in the King Saul Hotel, which is a new first-class hotel with swimming pool, tennis courts, sauna, air-conditioning, etc. For further information concerning travel arrangements, advanced registration, hotel reservations, pre- and post-convention tours and other activities, please write to Daphna Knassim, POB 29234, Tel Aviv, Israel, or call Dafna Tours, London Office, England, Telephone (01) 437 5074.

# 1974 International Zürich Seminar on Digital Communica-

The first Zürich Seminar in 1970 was concerned with the digital processing of analog signals. The theme of the second seminar in 1972 was in the field of integrated digital communication systems. The third Zürich Seminar is also concerned with digital communications. It is planned to be held once more at the Swiss Federal Institute of Technology in Zürich from 12 to 15 March 1974.

The three central themes are Source Encoding, Channel Encoding and Modulation, Digital Communication Loops. In all three fields there should be presented to the participants the latest in techniques, development and research results, and new ideas. It is felt that a special emphasis should be placed on the many facets of digital communication loops, since this promises to be a fruitful field of endeavour. Specialists in digital communication techniques are invited to submit original work which has not been made public or reported in any other form. Report proposals, consisting if possible of the full text or at least a 300- to 500-word summary, must include a 35word abstract and should reach the secretariat before 1 September 1973. The report should correspond to a lecture time of no more than 20 minutes. The text, especially in the case of a summary, should preferably be supported by diagrams or tables, and should clearly indicate where basically new results have been reached. A limited number of late contributions (suitable for a 10-minute lecture), which describe important new developments can be allowed for, provided that an abstract of 100 words and a 300- to 500-word summary is submitted by 1 November 1973. While English is the preferred language at the Conference, the lectures as well as the subsequent discussions can however be held in English, French or German. The chairman at each meeting will assist in any multi-lingual discussions. The use of simultaneous translation is not envisaged. For all contributions or information, please contact: Sekretariat, 1974 International Zürich Seminar, Institut für Fernmeldetechnik ETH, Sternwartstrasse 7, CH - 8006 Zürich (Schweiz).

# NEWS OF THE SECTIONS

NOTE FOR CONTRIBUTING EDITORS OR SECTION SECRE-TARIES

The next issue of the Newsletter will be in July, and all news must reach the Editor before the end of June 1973.

SWITZERLAND SECTION

The newly-elected officers for 1973 are:-Chairman: Dr. P. Schmid; Vice-Chairman: Prof. F. E. Gardiol; Secretary/Treasurer: Dr. G. J. Guekos; Members-at-Large: Dr. M. Christoffel, Prof. R. Dessoulavy, Dr. J. W. Herbststreit, Prof. M. Strutt.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

Officers of the Section for 1973 are:-

Chairman: Mr. G. G. Gouriet; Vice-Chairmen: Mr. C. C. Barnes, Mr. R. H. Davies; Treasurer: Dr. R. L. Smith-Rose; Secretary: Mr. W. H. Devenish; Assistant Secretary, Mr. M. N. John. The members expressed appreciation of the tremendous service rendered by Bob Winton in the years he had been Secretary. At the Annual General Meeting of the Section on 19 March,

the Director of Region 8 told members of activity in the Region and in the Institute as a whole. He presented to Prof. J. Brown and Dr. E. Friedlander their Fellow Certificates. The Chairman asked members to write suggesting names of suitable future candidates for Fellows and Field Awards.

Also present at the meeting was Prof. Vander Vorst, who had earlier attended a meeting of the Section Committee in his capacity as Chairman of the Region 8 Student Activity Committee. At that meeting consideration was given to the possibility of arranging interchange of student members between Sections for short visits, although it was thought that employment in the UK might be difficult to arrange. Prof. C. W. Turner, Section Student Adviser, is trying to arrange these student exchanges with other Sections in Region 8. Will any member who would consider receiving a student for accommodation or work, please get in touch with Prof. Turner at University of London, King's College, Strand, London WC2R 2LS.

Reference was made to the 20 or 25 conferences which the Section was currently co-sponsoring; it was emphasised that the meaning attached to the term "sponsoring" was that usual in the Section area and not that normal in IEEE practice. Members prepared to represent the Section on Organising Committees of conferences which the Section sponsors are asked to advise Mr. M. N. John, c/o Kennedy & Donkin, Premier House, Woking, Surrey, stating their field of technical interest. The Section regrets it cannot meet expenses.

Of the three Chapters in the Section, one is highly successful, but the other two are receiving attention, both from their own Officers and the Section Committee. Members interested in the Circuit Theory Chapter should contact Mr. S. Deards, Department of Electronic and Control Engineering, Cranfield Institute of Technology, Cranfield, Beds. Those interested in the Professional Communications Chapter should get in touch with Mr. R. F. Pocock, 39 Brackens Lane, Alvaston, Derby. The Section has agreed to a contribution of 30 cents per Section member to support the Newsletter.

The Section hosts a meeting of the Region 8 Committee at the City University, London, on 6 and 7 April. Delegates, including President Harold Chestnut, are the guests of the Institution of Electrical Engineers, the Institution of Electronic and Radio Engineers, and the Section, at a dinner on 6 April.

# STUDENT ACTIVITY NEWS

A meeting of the Region 8 Student Activity Committee was held at the University of Louvain, Belgium, on 17 November 1972, together with the Sixth Region 8 Student Paper Contest. Participants came from Helsinki, Finland; Gothenburg, Sweden; Twente, Netherlands; Paris, France; and Louvain - la - Neuve, Belgium. The first prize was won by E. Schutz from the Universite Catholique de Louvain, Belgium, for the paper "Etude d'un Gyrateur Integrable Desiguilibre". The second prize winner was W. A. Vervoort, Technological University, Twente, Netherlands, for the paper "AAS—An Addressing System". The third prize was won by B. Marthinsson and E. Max, Chalmers University of Technology, Gothenburg, Sweden, for their paper "Automatic

Check and Calibration of Digital Voltmeters".
The jury was composed of Prof. J. Remy, Paris, France; Prof. V. Svelto, Pavio, Italy; Regional Director C. R. Russell, London, England; Prof. A. A. Kamal, Cairo, Egypt; and Prof. M. Installe, Louvain-la-Neuve, Belgium. A combination of Life Member and Region 8 SAC funds will allow the winner to make a trip to the United States.

The next Student Paper Contest will be held within the frame of Eurocon '74 (April, in the Netherlands) and there will be no Contest in 1973.

We recently had one more Region 8 Student Branch — at the Technion, Haifa, Israel. Prof. Bolinder, past SAC Chairman, and counselor for several years at Chalmers Institute of Technology, recently resigned; he will be replaced by Prof. I. Lundstrom, who was the winner of one of the first Student Paper Contests. There are now 4 branches in Benelux, 1 in Denmark, 2 in Egypt, 1 in Finland, 4 in France, 1 in Israel, 1 in Middle and South Italy, 6 in North Italy, 1 in Spain, 4 in Sweden, 2 in Switzerland, 1 in UKRI, and 1 in Yugoslavia.

At the meeting it was decided that each branch should make a step toward promoting student exchanges (offers are requested for accepting students in the summer, have cheap lodgings, offering summer jobs, etc.). We very much hope that this year will see effective action in this field.

# **MEETINGS OUTSIDE REGION 8**

1973 International IEEE/G-AP Symposium and USNC/URSI

The 1973 main meeting sponsored by the US National Committee of URSI, and the 1973 IEEE International Antennas and Propagation Symposium will be held jointly from 21-24 August 1973 at the Engineering Center of the University of Colorado. URSI and IEEE/G-AP technical programs will be arranged separ-

ately except for the appropriate co-ordination.

Further information from Dr. J. R. Wait, Chairman, Technical Program Committee, URSI/IEEE G-AP Symposium, US Department of Commerce, Boulder, Colorado 80302, USA.

1973 IEEE International Conference on Engineering in the Ocean Environment

'Ocean '73", the Fourth Annual IEEE International Conference on Engineering in the Ocean (IEEE Oceanography Co-ordinating Committee, Seattle Section) will be held from 25-28 September 1973 in Seattle, Washington, USA.

Technologies of interest include: underwater acoustics, optics and imaging; underwater communications; signal processing; magnetic and electromagnetic sensing; remote sensing: telemetry, data collection and reduction; navigation, tracking and position determination; automatic vehicle stabilisation and control; power generation, transmission and control; diving instrumentation; bioelectronics; system modelling and optimisation. Suggested application areas include: environmental measurement, prediction and control; naval systems; geophysical systems; ship systems, instrumentation and control.

"Ocean '73" will be co-Chaired by Dr. T. F. Hueter of Honey-well's Marine Systems Center, and E. W. Early of the University of Washington's Applied Physics Laboratory. Further information can be obtained from Mr. G. Raudsep, Marine Systems Center, Honeywell Inc., 5303 Shilshole Avenue Northwest, Seattle, Washington 98107, USA.

International Electrical, Electronics Conference and Exposition

This Conference and Exposition will be held in Toronto from 1-3 October 1973, and approximately 100 papers on electrical and electronic subjects will be presented. In line with the name and ideals of the Conference, plus the highly successful pattern of 1971, the programme will include a larger number of papers from the electrical (power) industry, particularly in technical areas where this discipline interacts with electronics. This event is not only Canada's largest scientific conference and exposition in any field, but is of course the largest and most comprehensive in the general electrical (power) and electronic field. Some specific areas are electrical: industrial and commercial applications; protective devices; sub-station design (from aesthetics to SF); environmental problems; ehv transmissions (overand underground); electronic: telecommunications; mini-computers; semi-conductors; ics and their application; data banks and their security. Further information can be obtained from Mr. N. Coxall, Chairman Technical Program Committee, 1450 Don Mills Road, Don Mills 404, Ontario, Canada.

1974 IEEE International Symposium on Circuit Theory The 1974 Symposium will be held at the Sir Francis Drake Hotel, San Francisco, California, from 21-24 April 1974. It features the presentation of papers on all aspects of the theory and design of circuits and systems. In addition to contributed and invited papers, the Symposium will include tutorial and technical applications oriented papers on topics of current interest. Authors are invited to submit original contributions either in regular or short paper form. Three copies of all papers should be submitted by 15 October 1973 to the Chairman of the Technical Program Committee: Dr. L. O. Chua, Department of Electrical Engineering and Computer Science, University of Children in Parkelow Children in Carlot California, Berkeley, California 94720, USA. Further information can be obtained from Dr. S. P. Chan, Department of Electrical Engineering and Computer Science, University of Santa Clara, Santa Clara, California 95053, USA.

#### CONFERENCE INSERTS MAILED WITH THE **NEWSLETTER**

This service is available for all professional meetings contributing to the learned society programme of the IEEE. The charge helps towards the cost of publishing the Newsletter and for an insert such as is sent with this issue is approximately \$165 for a circulation of 6,000 and lower in proportion for one Section.

Enquiries to County Secretarial Services, 8 The Flower Walk, Guildford, Surrey GU2 5HH England. Telephone Guildford (0483) 77777. Cable address Cosec Guildfordsv.