

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

INCORPORATED



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IEEE Region 8 newsletter

INSTITUTE NEWS

Board-to-Member Communication

Section Chairmen frequently point to the need of bringing to members' personal attention Board of Directors' consideration of matters before decisions are taken. Since individual member mailings are too expensive and only 'Spectrum' reaches all members, the remedy obviously lies in better utilisation of 'Spectrum.' Toward this end a new column, titled 'Inside I.E.E.', is included in the IEEE News section to enable officers and directors to communicate directly with the membership at large.

Socio-Technical Problems

A two-day joint meeting of Exec Com and the Long-Range Planning Committee was held specifically to discuss socio-technical problems. So much came out of it that it took four months to explore all the avenues that were opened up. One significant point made was that, while the group-structure of our technical activity is well oriented to needs within our own discipline, it may not be well oriented to the handling of public problems which cut across several disciplines—in fact, if misused, the group-structure could be a deterrent. Formal steps were taken to explore the validity of this assumption, and if found true, to see how new, problem-oriented organisations can be set up, flexible to interface with other societies, agencies and organisations on a problem-by-problem basis—tapping where relevant the existing expertise in the various groups. Cognisance was taken of the necessity for identifying promptly the socio-technical areas to which IEEE can effectively contribute; the extent of the contributions; and the national and transnational priorities calling for solution of critical problems.

Subscriptions to 'Spectrum'

Subscriptions to 'Spectrum' overseas are being offered reciprocally to members of the IEEE and to members of Verband Deutscher Elektrotechniker by bulk shipments abroad at rates to be set up by Exec Com. Similar arrangements will be made in Regions 8, 9 and 10 upon agreement reached between IEEE and any national electrical engineering society. Heretofore it has not been simple for an IEEE member (short of becoming an IEE member) to secure or pay for a subscription, say, to Part III of the 'Proceedings of IEE'. When this new plan becomes definitive, in terms of entering a subscription and drawing a cheque, due announcement will be made.

New Renewal Invoices

New renewal invoices will be mailed to members for annual Institute dues plus renewal of group memberships and subscriptions. The principal addition is a request (parallel to the Directory Listing) to provide current information on position and employer affiliation, and also a box to report highest academic degree earned. You may be asked why this information is needed—the answer is to enable Headquarters to do a better all-round job with up-to-date information, and for sections to pinpoint more accurately the business affiliations of their members.

Geographic Sources of Papers

Statistics show that a quarter of our 'Transactions' papers are originating in parts of the world outside United States and Canada—an impressive figure considering that relatively only a short time ago (1960) President Ronald McFarlan first vigorously promoted expansion of the Institute's activities overseas. Of this quarter, 18% come from Region 8. The Position in the 'Proceedings' is notably different, with only 8% coming from Regions 8, 9 and 10, although again Region 8 provides the majority, 5%.

Merger to Form Systems, Man and Cybernetics (G-SMC)

The IEEE Man-Machine Systems (G-MMS) and Systems Science and Cybernetics (G-SSC) Groups will merge from 1 January 1971 to become the IEEE Systems, Man and Cybernetics Group (G-SMC). The remaining issues of 1970 'Transactions' and Newsletters will be distributed to the separate Group memberships. Other commitments of the separate Groups will be assumed as commitments of the merged Group, including the sponsorship of technical meetings and similar activities. The merged Group will publish 'Transactions' on a quarterly basis in 1971 and will accept appropriate papers for the two former 'Transactions'.

Establishment of IEEE Societies

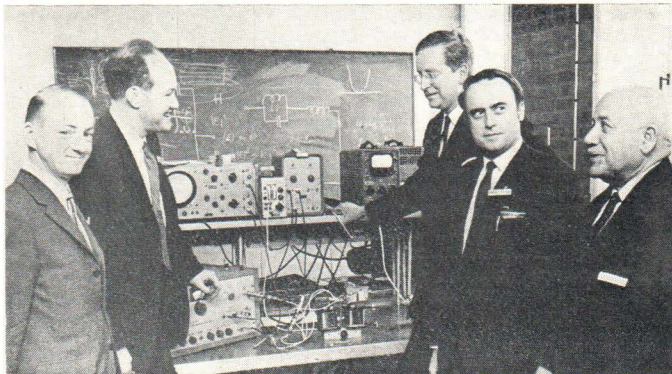
Although the petitions by the IEEE Computer Group and Power Group to become IEEE Societies have been approved in principle, for these to become effective from January 1971, the IEEE By-laws must be amended to provide for Societies. The IEEE Executive Committee has established an Ad Hoc Committee, chaired by Dr. Werner Buchholz, to draft suitable By-law amendments. These were reviewed by the Executive Committee and then submitted to the IEEE Board for action.

New Image for IEEE Education Group

In the past this group has tended to give major emphasis to 'what should be taught' and curriculum problems in the USA. Under the chairmanship of Dr. Warren B. Boast, the Group is being re-organised and will focus attention on 'how to teach', including educational technology applicable to other subjects than electrical engineering. The new statement of scope for the Group is as follows:—'The field of interest of the Group shall be education methods, educational technology, instructional materials and educational and professional development programmes within the electrical engineering disciplines'. Members interested in working with the Group in its new role should contact: Dr. Warren B. Boast, Electrical Engineering Department, Iowa State College, Ames, Iowa 50010, USA.

Bicentennial of the United States

The United States, in 1876, celebrated its 100th birthday with a Centennial Exposition in Philadelphia. There the electrical



Five members of the Region 8 Committee in front of equipment for measurements on ferrite circulators at the Division of Network Theory, Chalmers University of Technology, Gothenburg, Sweden. From left: Professor Robert I. Magnusson, Chalmers University of Technology; Dr. Andreas Rannestad, Oslo, Norway; Professor E. Folke Bolinder, Chalmers University of Technology; Professor Paul Jespers, Catholic University of Louvain, Belgium; and Dr. Mahmoud A. B. El Koshairy, Cairo, Egypt.

exhibits consisted of Bell's new telephone 'a Gramme machine (from France) that ran one arc lamp and another Gramme machine (from Cornell University) wound for electroplating; and a Wallace dynamo (made in Ansonia, Connecticut) that operated an arc lamp on top of the building'. The telegraph in America was 32 years old.

Now, only five years intervene before the 1976 bicentennial comes up. The IEEE History Committee is considering the nature of the Institute's participation, at the ripe old age of 92. Any suggestions? Write to the Chairman, Morris Hooven, at IEEE Headquarters.

Edison Medal

Formerly restricted to recipients resident in the US and Canada, the Medal may now be awarded to 'a resident of any country where IEEE has members'. The change involved petition to the courts to revise restrictions in the deed of gift.

Continuing Education

IEEE's Cassette Colloquia series has added 'Integrated Circuits for Consumer Applications' and 'Principles for Programming Process Computers', both based on experts' material presented at the 1970 March Convention. Particulars will be found in an IEEE ad. in Spectrum. (Further information from Jack Kinn at Headquarters).

Satellite Systems Committee

The Satellite Systems Committee is now operational and has Sub-committees in the following areas: — Communication; satellite systems; Satellite and earth station technology; Spectrum and Orbit utilisation; Standards; Earth observation satellite systems; Navigation and data relay satellite systems; Extra-terrestrial systems. The field of interest of the Committee is 'The study and advancement of the state of the arts in equipment, procedures and techniques applied to the organisation, development and operation of complex electrical-electronic functional systems using satellites for any purpose whatsoever in government, military or commercial operations'. Enthusiastic committee members are required in all areas of the Committee's activities and interested persons from all Regions are invited to contact Mr. T. Simms, Northern Electric Co., Ltd., P.O. Box 3511, Station C, Ottawa, Ontario, Canada (telephone: (613) 836-3200).

Student Dues Increased

B of D has voted to increase dues to \$8 a year, from \$5, from 1 January 1971, but dues for 1971, if paid by 31 December this year, will be at the old \$5 rate. Even the higher new level involves continued support from general Institute funds.

MEETINGS OUTSIDE REGION 8

IEEE/PIB International Symposium XXI

The twenty-first Microwave Research Institute International Symposium will be on the topic of Computers and Automata—Towards a Common Theory. It will be held on 13-15 April 1971 in New York City. Further particulars are available from the Polytechnic Institute of Brooklyn, MRI Symposium Committee, 333 Jay Street, Brooklyn, N.Y. 11201, Mr. Jerome Fox, Executive Secretary.

1971 IEEE G-MTT International Microwave Symposium

The Symposium, with the theme 'Microwaves for a Better World', is to be held from 17-20 May 1971 at the Marriott Twin Bridges Motor Hotel, Washington DC. Information from Mr. Robert V. Garver, Chairman, Technical Program Committee, Harry Diamond Laboratories, Washington DC. 20438, USA.

International Magnetics Conference

The purpose of the ninth INTERMAG Conference, 13-15 April 1971, at the Denver Hilton, Denver, Colo., USA, is to provide a forum for presentation of new developments in applied magnetism and related magnetic phenomena. Information from Dr. C. D. Mee, IBM Corporation, Monterey and Cottle Roads, San Jose, California 95114, USA.

1971 IEEE International Symposium on Electromagnetic Compatibility

The 1971 EMC Symposium is to be held in Philadelphia, Pennsylvania from 13-15 July 1971. Information from Mr. F. Haber, Chairman, Technical Papers Committee, Moore School of Electrical Engineering, University of Pennsylvania, Philadelphia, Pa. 19104, USA by 14 December 1970, with complete papers by 1 April 1971.

1971 IEEE Summer Power Meeting and International Symposium on High Power Testing

The 1971 Summer Power Meeting and International Symposium on High Power Testing of the Power Group of the IEEE is scheduled to be held from 18-23 July 1971 at the Hilton

Hotel in Portland, Oregon. The technical programme will encompass all subjects falling within the power field. Papers dealing with high-power testing will be especially welcome. Authors should advise the Technical Conference Service Office of IEEE Headquarters without delay if they expect to submit a paper. (Papers intended for presentation as part of the International Symposium on High Power Testing should be so identified.) IEEE Headquarters will then furnish the author a Declaration of Intent form, an Author's Guide, and model paper kits for the typing of the manuscript. The Declaration of Intent form should be returned as soon as possible preferably by return mail, so that preliminary plans may be made to include the paper in the programme.

1971 IEEE International Geoscience Electronics Symposium

The third International Geoscience Electronics Symposium will be held in Washington DC on 25-27 August 1971. This three-day Symposium is sponsored by the Geoscience Electronics Group (G-GE). The purposes of the Symposium are the presentation of reports on work in progress in the field of geoscience electronics and the stimulation of an exchange of information on the newest aspects of this field, with particular emphasis on geoscience electronics hardware.

Geoscience Electronics Group is attempting to bring more hardware into the Symposium, live exhibits are sought that best demonstrate technical achievement and advancement in the state-of-the-art within the previous year. It may be a demonstration of hardware on which a paper is formally presented, or it may be a demonstration of technical achievement in the geoscience electronics hardware on which no formal documentation exists.

Individuals and companies are invited to submit a comprehensive proposal to the Educational Exhibit Programme Chairman Mr. C. F. Getman, 1971 IEEE International Geoscience Electronics Symposium, US Naval Oceanographic Office, Engineering Services Division, Washington DC 20390, USA.

REGION 8 NEWS

Meetings in Lausanne and Geneva

At the end of October meetings were held of the Region 8 Committee and of various organising committees for Eurocon 71. As a result of these latter meetings it was decided that no exhibition would be held in association with Eurocon 71. The following additional information is given about the session being organised by Professor Dr. F. L. Stumpers:—

For the series of sessions on the subject 'Information Processing in Large Systems' during Eurocon 71, several invited papers have already been promised—'Information Processing for Traffic Control', Dr. D. Gazis, IBM; 'Information Processing in the Field of Meteorology', Dr. W. Bradbury, UK Meteorological Office; 'Information Processing in Living Systems', Professor H. Vendrik, University of Nijmegen; 'Information Processing in High Energy Physics', Dr. MacLeod, or alternative, CERN, Geneva; 'Information Processing in Radio Astronomy (Aperture Synthesis)', Dr. Brauws, Leiden, or Dr. Kenderdine, Mullard Observatory. Through the help of the US Liaison Officer we hope to get a paper on information processing in space systems. Other subjects on which papers are being invited are information processing in a large factory (probably the Netherlands blasting and melting furnaces industry), and information processing in a modern hospital. In all but the third case the information processing is by computer. We thought that one separate session on the ways nature has found



Professor Giorgio Catenacci, Chairman of the North Italy Section, describing the operation of the control desk of the High Power Plant during the visit of the Section to Centro Elettrotecnico Sperimentale Italiano.

to process also large amounts of information would be interesting. Supporting contributions on these and related subjects are invited. See the Call for Papers of Eurocon 71.

Reduced Air Fares to New York

Details of group fares by scheduled air services from London to New York on 21 March returning 25 March at £112 or £85 (depending on numbers) may be obtained from the Editor.

MEETINGS IN REGION 8

European Semi-conductor Device Research Conference

A Third European Conference on Semi-conductor Device Research will be held in Munich from 30 March to 2 April 1971. This Conference is sponsored by the Deutsche Physikalische Gesellschaft in the European Physical Society and the Nachrichtentechnische Gesellschaft im VDE. Region 8 of the IEEE has been asked for sponsorship too. Information can be obtained from Dr. F. Coers, German Section IEEE, 6 Frankfurt/Main 70, Stresemann Allee 21, VDE-Haus, Germany, or Dr. K.-H. Riewe, DPG, 645 Hanau, Heraeusstr.9, Germany. This Conference will follow the German Spring meeting of the DPG on Solid State Physics to be held at Munster/Westfalen, from 22-27 March 1971.

Circuit Theory Group Annual Conference

An International Symposium on Electrical Network Theory will be held at the City University, London, England from 6-10 September 1971. Original papers, not exceeding 3,000 words, are invited, to arrive not later than 10 March 1971. The Symposium is sponsored by the City University, the IEEE Circuit Theory Group, the IEEE UKRI Section, the IEEE and the Institution of Electronic and Radio Engineers. This is the first annual conference of the Circuit Theory Group to be held outside the United States.

The registration fee before 1 August is £15 (\$36), and after 1 August is £17 (\$40.8). Accommodation is available at the University at £14 (\$33.6). Further information is available from Dr. G. S. Brayshaw, Net 71, Department of Electrical and Electronic Engineering, the City University, St. John Street, London E.C.1, England.

Computers for Analysis and Control in Medical and Biological Research

This Conference is organised by the IEE Control and Automation Division, in association with the IEEE (UK & RI Section), the Institute of Mathematics and its Applications, the Institution of Electronic and Radio Engineers, the Biological Engineering Society, and the British Computer Society, at the University of Sheffield, 7-9 September 1971. Residential accommodation will be available in the University Halls of Residence. The Conference is intended to interest those already working in the medical and biological field, where computers are used for research purposes.

Further information is available from the IEE Conference Department, Savoy Place, London WC2R OBL, England.

Conference on Displays

This Conference is organised by the IEE Control and Automation Division, in association with the Institute of Physics and the Physical Society, The Institution of Electronic and Radio Engineers, the Biological Engineering Society, and the Ergonomics Research Society at the University of Technology, Loughborough, 7-10 September 1971. Residential accommodation will be available in the University Halls of Residence.

This Conference aims to review both the new research and applications, both the engineering and the human science knowledge relevant to the fields of man-display interaction, display systems, display engineering and software and new technology. Registration forms and further details will be made available a few months before the event and will be sent to all who write to the IEE Conference Department, Savoy Place, London WC2R OBL, England.

1971 Joint Conference on Infra-Red Techniques

This Conference is organised by the Institution of Electronic and Radio Engineers in association with the IEE, the Institute of Physics and the Physical Society, and the IEEE UK & RI Section at the University of Reading, Reading, Berkshire, from 21-23 September 1971. The Organising Committee invites papers for this Conference. In the first instance synopses of proposed contributions are

requested. Further information and registration forms for the Conference will be available in due course from the Conference Registrar, Institution of Electronic and Radio Engineers, 9 Bedford Square, London, WC1B 3RG.

Industrial Measurement and Control by Radiation Techniques

This Conference is organised by the IEE, and the Scientific Instrument Manufacturer's Association in association with the IEEE UK & RI Section, The Institute of Measurement and Control, the Institute of Physics and the Physical Society, and the Institution of Electronic and Radio Engineers, at the University of Surrey, Guildford, from 11-13 April 1972. Residential accommodation will be available.

An associated scientific exhibition is being organised by the Scientific Instrument Manufacturer's Association and further details may be obtained from Miss V. Smith, SIMA, 20 Peel Street, London W.8, England.

Registration forms and further programme details will be made available a few months before the date of the Conference and Exhibition and will be sent to all who write to the IEE Conference Department, Savoy Place, London WC2R OBL, England.

Computer Aided Design

Organised by the IEE and the Electronic Engineering Association, in association with the Computer Services Bureau Association, the IEEE UK & RI Section, the Institution of Electronic and Radio Engineers, the Institute of Mathematics and its Applications, the Institution of Mechanical Engineers and the Institute of Physics and the Physical Society, this Conference will be held at the University of Southampton from 25-28 April 1972. Residential accommodation will be available at University of Southampton Halls of Residence. The Conference will cover all aspects of engineer-oriented computer programmes intended as an aid to the design process in the spheres of electrical engineering covering the full range from power to circuit applications and mechanical engineering for both machinery and structures. An associated exhibition is being organised by the Electronic Engineering Association, and further details may be obtained upon request from Mr. F. A. Sherry, Electronic Engineering Association, Berkeley Square House, Berkeley Square, London W1X 6JD, England. Registration forms and further programme details will be made available a few months before the date of the Conference and Exhibition and will be sent to all who write to the IEE Conference Department, Savoy Place, London WC2R OBL, England.

1972 Congress of the International Federation of Automatic Control (IFAC)

Papers related to the broad field of automatic control are solicited for the Fifth IFAC Congress, to be held from 12-17 June 1972 in Paris, France. Papers are invited for selection on the basis of advance abstracts and a questionnaire completed by the author, which may be obtained from one of the following individuals, any of whom can provide further information : Applications : Dr. Winston L. Nelson, Bell Telephone Labs Inc., Whippany, New Jersey 07981 ; Bio Systems : Dr. Ken Bischoff, School of Chemical Engineering, Cornell University, Ithaca, New York 14850 ; Components : Professor George A. Etzweiler, Electrical Engineering Department, Pennsylvania State University, University Park, Penn.16802 ; Education : Professor Stephen J. Kahne, Electrical Engineering Department, University of Minnesota, Minneapolis, Minnesota 55455 ; Space : Dr. John A. Aseltine, 1617 Via Zurita, Palos Verdes Estates, California 90274 ; Systems : Professor Herman R. Weed, Electrical Engineering Department, Ohio State University, Columbus, Ohio 43210 ; Theory : Dr. Bernard Friedland, Singer-General Precision Inc., 1150 McBride Avenue, Little Falls, New Jersey 07424. Abstracts and questionnaires are required before 1 March 1971.

NEWS OF THE SECTIONS

BENELUX SECTION

International Symposium on Information Theory, Noordwijk, June 1970

371 information scientists from 21 countries participated in this meeting. During the opening ceremony Dr. Wellinger, Director

of Region 8, presented the Mervyn J. Kelly Award to Dr. H. C. A. van Duuren for his fundamental contributions to data communications. Dr. K. H. Powers gave a survey of Dr. van Duuren's work ; the keynote address on 'Coding for the Ear' was given by Professors M. Schroeder (Gottingen).

Four simultaneous sessions were held daily, covering such timely topics as modern communication systems, data reduction error control, feedback communications, radar, detection and estimation theory, properties of communication channels, etc. Invited papers dealt with space communications, communication over telephone channels, number theory and coding. A banquet was held when Professor Schouten gave the after dinner speech on 'A Mathematical Theory of Digestion', and Professor Siforov thanked all on behalf of URSI and the participants.

Eighth International Conference on Microwave and Optical Generation and Amplification, Amsterdam, 1970

This Conference was co-organised by the Dutch Electronics and Radio Society, the Royal Institute of Engineers in the Netherlands, and the Benelux Section of IEEE. The Burgomaster of Amsterdam opened the Conference. Professor Cassimir gave the keynote address on 'Physical Aspects of Microwave and Optical Generation'. Dr. Le Mezec gave an invited address on laser applications; Professor Doring on microwave tubes and Professor Bordewijk on satellite broadcasting. There were 357 participants. A programme booklet contained abstracts of more than 130 lectures. The subjects were divided into three parallel groups: tubes, semi-conductors and lasers. Five panel discussions were organised on subjects of great common interest. A reception was given by the City Council and the Ministry of Education and Sciences, and a farewell party was held on the final night.

UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION:

Visit by President John Granger

The Section greatly appreciated that President Granger visited London on 20 and 21 April to talk on 'Engineering Institutions—the Search for Relevance'. He was also entertained to lunch by the Presidents and Secretaries of the 14 British professional institutions concerned with engineering.

Chapters

- (a) Circuit Theory: Holding regular meetings. An international Conference is being organised for 1971, as detailed in Meetings in the Region.

- (b) EWS: Hope to hold their first meeting this session.
(c) Education: Exclusively concerned with educational technology. Hope to hold their first meeting this session.
(d) Computer: Disbanded.

Travelling Scholarship

In partnership with the IEE and the Institution of Electronic and Radio Engineers, the Section has instituted a travelling scholarship, value £300, to enable a post-graduate student to visit foreign establishments to promote an exchange of ideas and foster closer relationships between young engineers. Candidates must belong to one of the three institutions—not necessarily to the IEEE.

Contacts with National Societies

Excellent day-to-day working relationships have been established with the two British professional institutions for electrical and electronic engineers—the IERE (membership 14,000) and the IEE (membership 60,000). This has required tact, forethought, consultation and time, to ensure that the Section never appears to be acting contrary to the institutions' interests, and to make the Section's intentions and motives clearly understood before particular courses of action are taken.

To avoid any possibility of disturbing the harmony, Region 8 and the Sections within it are asked not to communicate direct with the IEE or IERE, but only through the Chairman or Secretary of the UKRI Section.

Loss of IEEE Ties

A batch of 20 dozen IEEE ties was lost in transit—presumed stolen—between Manchester and Guildford some time late August. Should any member receive information of IEEE ties being offered or made available through any channel other than IEEE Headquarters or County Secretarial Services, would they please inform their local Police Station and also inform County Secretarial Services, 8 The Flower Walk, Guildford, Surrey, (Telephone Guildford 70077).

A further order was placed immediately the loss was reported and has now been delivered, but County Secretarial Services would like to take this opportunity of expressing their regrets for any inconvenience caused to members by delays in delivery during the past few weeks.

STUDENT ACTIVITY NEWS



Winners of the Fourth Region 8 Student Contest, Mr. Bernard P. Zisermann (left) and Mr. Michel Codou.

BENELUX

Twente Student Branch

Professor Dick Poortvliet has resigned as Counselor; the new Counselor is Professor O. W. Memelink.

Liege Student Branch

Professor A. Danthine informs us that Professor A. Vidal of the University of Lille is interested in forming a new Student Branch at the University. Professor J. L. J. van der Werff, Haarlem, has written an interesting report on a trip to Moscow and Leningrad. A copy can be obtained from the SAC Chairman. Professor J. Hoffmann, Brussels, reports, in a letter of 16

October 1970, that he has not been successful in starting a Student Branch at Universite Libre de Bruxelles. He will make a new attempt. Professor H. J. Butterweck, Eindhoven, informs us in a letter that there are plans in Holland of forming a single Student Branch at the three Technical Universities, Delft, Eindhoven and Twente.

EGYPT

A new Student Branch at the University of Cairo, has been approved by the Executive Committee. Counselor is Professor Ahmed K. M. A. Kamal, Faculty of Engineering, University of Cairo. Dr. M. A. B. El-Koshairy, Chairman of the Egypt Section, took an active part in starting the new Student Branch.

NORTH ITALY

Bologna Student Branch

In August 1970 a new Student Branch started at Università di Bologna, Istituto di Elettronica, Bologna, with Professor V. A. Monaco as Counselor. The Executive Committee has approved the formation of a new Student Branch at the University of Genova. Counselor is Professor G. Biorci, Istituto di Elettrotecnica, Facoltà di Ingegneria, University of Genova. Mr. P. Antognetti, University of Genova, actively helped in forming the new Student Branch.

TURKEY

A recommendation was sent to the Executive Committee on 4 July 1970 that they approve the formation of a Student Branch at the Middle East Technical University in Ankara. Professor Togan Zeren is the Counselor.

Activation letters. These have been sent to Professors Magne, Paris (12 October); Cimagalli, Rome (9 October); Zoldan, Trieste (12 October); Mosca, Milan (9 October); Hoffman, Brussels (12 October); Butterweck, Eindhoven (12 October); Cappuccini, Napoli (12 October); and Selseth, Trondheim (4 September). Very friendly letters have been received from Professors Hoffman, Zoldan and Butterweck. More letters may arrive.