THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS



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Regional Director : Dr. Robert C. & Williams.

# IEEE Region 8 newsletter

No. 2 March 1968

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### **INSTITUTE NEWS**

#### **Board of Directors :**

Dr. Seymour W. Herwald (Westinghouse Electric Corporation), the newly-elected President of the IEEE, has announced the election to the IEEE Board of Directors

Prof. Fritz E. Borgnis, Federal Institute of Technology, Zurich, Switzerland as a Director-at-Large.

#### EE Payments in Local Currency :

The postscript to the First Newsletter referred only to payments in the United Kingdom. It may, however, be of interest to members in France, Germany and Italy to know that the IEEE has opened accounts there also. IEEE members, as well as those applying for membership, may find it more convenient to transmit payments covering membership dues, group fees, subscriptions to publications, etc., in their local currency directly to the bank offices shown in the table at the bottom of this page :

#### Procedure :

- 1. Determine amount in U.S. currency to be paid.
- 2. Determine the applicable exchange rate.
- 3. Forward cheques payable to Chase Manhattan Bank, or in Italy "Banca Nazionale del Lavoro", for the account of the IEEE in local currency.
- Send bill or application along with payment to the relevant bank. IT WILL NOT BE POSSIBLE FOR THE BANK TO TAKE ACTION UNLESS AN IEEE APPLICATION OR BILL IS SUBMITTED WITH YOUR PAYMENT.

#### Education for the Engineering Mission :

The talk on the above subject, given by Dr. W. G. Shepherd in London, referred to in Newsletter No. 1, is to be published in Spectrum and in Electronics and

Power (IEE). Dr. Shepherd distinguished three types of engineer: the engineer scientist, the engineer practitioner, and the engineer technologist, and suggested appropriate courses of study for each. He then stressed the fact that American industrialists almost unanimously approve of continued education as being essential to enable engineers to keep abreast of their fields, and that the present limited co-operation between universities and industry in this respect should be considerably increased. Lord Jackson of Burnley opened the discussion and pointed out the difficulties in providing the optimum type of post graduate education. He also suggested that it was essential for industry to be involved in this higher education if the best results were to be obtained. Professor W. E. J. Farvis accepted Dr. Shepherd's classification of the three types of engineer, but disagreed with his suggestion that the university training period should be lengthened.

#### Translated Journals :

In its eighth year the IEEE translation programme for journals is being extended to include two new periodicals. The full list of journals (and prices) is :

	Ф
Radio Engineering and Electronic Physics	107
Telecommunications and Radio Engineering	107
Engineering Cybernetics	87
Electronics and Communications in Japan	107
Electrical Engineering in Japan	107
Soviet Automatic Control	107
Electronics in Mainland China	127
Single issues of all journals except EMC	20.50
Single issues of Electronics in Mainland China	40.50

Exchange Rates										
	U.S. Dollars	\$25.00	\$10.00	\$5.00	\$1.00	75c	50c	25c		
France										
Chase Manhattan Bank, 41 Rue Cambon, Paris 1, France	Francs	125	60	25	5	3.75	2.50	1.25		
Germany										
Chase Manhattan Bank, Taunus Anlage 11, Frankfurt/Main, Germany	Deutsche Marks	100	40	20	4	3	2	1		
Italy										
Banca Nazionale del Lavoro, 119 Via Vittorio Veneto, Rome, Italy	Italian Lira	<b>1562</b> 5	6250	3125	625	470	313	157		

#### **Up-Grading of Members :**

In Newsletter No. 1 a very commendable number of Fellowship Awards was reported. It should be remembered that only Senior Members are eligible for nomination for elevation to Fellow and that this application must be supported by other Fellows. It is, therefore, of great importance for all Sections to encourage those of their members holding the required qualifications and experience to apply for up-grading to Senior Member.

Conversations which your Editor has had reveal that many members do not know their present grade; the easiest way to discover this is to examine the last form showing dues. Having established this and obtained the necessary forms for completion, it is suggested that you seek guidance from your Section on filling in these forms.

#### Section Student Branches :

In the United States the usual arrangement is for Student Branches to be formed at Universities and Colleges which have been graded as 'schools of recognised standing'. While this arrangement will continue wherever appropriate in Region 8, the Board of Directors agreed at their January meeting to allow Section Student Branches to be formed covering the geographical area of a Section. Such Branches have now been formed in the U.K.R.I. Section and in the Switzerland Section.

#### **Presentation of Fellowship Certificates :**

In January Dr. Williams presented Fellowship Certificates to the four members in the Norway Section whose elevation has already been reported, one of whom was the First President of the Norwegian Parliament. Further details are given in the News from the Norway Section.

#### Sponsored Meetings in Region 8:

The Germany (West) Section is co-sponsoring, with Deutsche Gesellschaft fur Kybernetiks (DGK) and Nachrichtentechnische Gesellschaft in VDE (NTG), the 1968 Cybernetics Conference, from 23rd to 26th April. Information can be obtained from Mr. H. H. Burghoff, 6 Frankfurt/Main 70, (F.R. Germany) Stresemann Allee 21, VDE-Haus.

#### **BENELUX SECTION**

# **Contributing Editor** : Dr. Paul Williams, Catholic University, Louvain, Belgium.

#### EGYPT SECTION

Contributing Editor : (To be appointed)

#### FRANCE SECTION

Contributing Editor : Mr. R. Baudry, 26 rue de l'Yvette, Paris XVI, France.

Since Newsletter No. 1 was published, the following meetings have been held in Paris by the France Section and its Computer Chapter :

'Toward Correct Programs' by Professor E. W. Dijkstra, Technische Hogeschool, T.E. Eindhoven.

'The Role of Power Semi-Conductors in Industry' by D. A. Pisarcik, Westinghouse Electric Corporation.

'The Dynamics of Academic Computing Centers' by Dr. W. C. Lynch, Case Institute of Technology, Cleveland, Ohio. A leading event in the European conference calendar is the International Broadcasting Convention and Exhibition, to be held at Grosvenor House, London, from 9th to 13th September 1968 and of which the U.K.R.I. Section is a co-sponsor. The scope comprises systems, studio and origination equipment, recording, signal distribution including wire relay, transmitters and transposers, aerials, receivers, propagation, films and satellites. Information can be obtained from the Secretariat, International Broadcasting Convention, Savoy Place, London, W.C.2.

The U.K.R.I. Section has also accepted invitations to co-sponsor:

The Second Solid-State Devices Conference in Manchester from 3rd to 6th September 1968. Information can be obtained from the Institute of Physics and the Physical Society, 47 Belgrave Square, London, S.W.1, England.

A Conference on Electronics Design to be held in London from 23rd to 27th September 1968. Information can be obtained from Mrs. Ann Cook, Institution of Electrical Engineers, Savoy Place, London, W.C.2 England.

The Sixth International Congress on Electro-Heat in Brighton, from 13th to 18th May 1968. The scope includes arc furnaces; re-melting processes; resistance and induction melting; resistance and infra-red heating, dielectric and ultra-high frequency heating; economics and future developments. Information can be obtained from the Congress Office, UIE6, c/o The Electricity Council, Trafalgar Buildings, 1 Charing Cross, London, S.W.1, England.

#### Meeting in Hungary :

Professor Dr. I. P. Valko, the Hungarian Academy of Sciences, Department of Technical Sciences, Szabadsag-Ter 17, Budapest V, Hungary, has asked for the announcement of the following meeting :

Symposium on Reliability in Electronics, Budapest, 15th to 18th October 1968, organised by the Scientific Society for Telecommunication, sponsored by the Hungarian Academy of Sciences, Department of Technical Sciences.

He would also welcome comments on the extent  $\infty$  interest in a possible Hungary Section.

### **NEWS OF THE SECTIONS**

Nine students of the Ecole Superieure d'Electricite, Section Electricite-Electronique have become Student Members of IEEE.

#### GERMANY (WEST) SECTION

**Contributing Editor**: Dr. L. Rohde, Rohde & Schwartz, Muhldorfstrasse 15, 8 Munich 8, West Germany.

The next Conference of the Section will be the Cybernetics Conference 1968, referred to in detail earlier.

#### **ISRAEL SECTION**

Contributing Editor : Mr. M. Weissenstern, P.O. Box 127, Lod Airport, Israel.

#### MIDDLE AND SOUTH ITALY SECTION

**Contributing Editor** : Mr. D. Solimini, Instituto di Elettronica, Universita di Roma, Via Eudossiana 18, Roma 00184.

On 12th January 1968 Professor Andrew Viterbi,

University of California, spoke on 'Detection and Decoding in Digital Communication Systems'. Before this talk, the certificate of IEEE Fellow was presented to Professor Arnaldo M. Angelini. The following informal seminars are being planned: G. d'Auria will speak on current research at the University of Rome on the coherence of electro-magnetic fields; V. Cimagalli, G. Martinelli and A. Roveri will speak on the use of several variables in network theory and methods for the synthesis of active networks. Student Branch officers were elected in a ballot on 17th February.

#### NORTH ITALY SECTION

**Contributing Editor**: Professor G. Cariolaro, University of Padova, Via Marzolo 9, Padova, Venetia, Italy.

The Section Annual Assembly was held on 22nd January 1968. During the Assembly the Bylaws of the Section were discussed. The Assembly recommended the expansion of IEEE Student activity throughout the area of the Section since, at present, this activity is 'imited to the Universities of Padova, Trieste and Jologna. Regarding the co-operation of the Section with the A.E.I. (Associazione Elettrotecnica ed Elettronica Italiana), it was recommended that Italian authors who publish in the A.E.I. Journals should submit their results also to the IEEE Journals, e.g., by short letters.

#### NORWAY SECTION

#### Contributing Editor : Mr. M. M. Brady, A/S NERA Oslo, Pilestredet 75 C, Oslo 3, Norway.

The Norway Section, which will soon celebrate its fifth birthday, is membership-wise one of the smallest IEEE Sections. The Section is thus understandably proud that four Norwegians were elected to Fellows and that Region 8 Director, Dr. R. C. G. Williams, was able to visit Oslo to present the Fellow certificates on 24th January. Dr. Williams summarised the background of the men involved in a short speech that was re-broadcast that same evening over the National adio-broadcasting network. He noted that Norwegian arliament President Bernt Ingvaldsen was the first acting Government leader to be elected to Fellow, conclusive evidence of success in dual careers in electrical engineering and Government. The evening was further highlighted by Professor Samuel Seely's talk on "Digital Computers in Engineering Education". Professor Seely is concerned not only with the technical aspects of computer technology, but also with its educational implications. He discussed the extent of incorporation of modern electronic technology into education in the United States, and pointed out that computer science transgressed the traditional department boundaries to become an inter-disciplinarv science.

On 19th February the Section had a joint meeting with the Norwegian Electrotechnical Society to hear Gunnar Jancke from Sweden speak on 'Super High Voltage Transmission'. Jancke discussed those networks presently in operation at 525 kV and higher and outlined research being done to reach 1,100 kV and possibly 1,500 kV.

The Section has been trying for some time to elicit student opinion on the value of student groups, but

thus far has had little success; student membership is available to students at the three major educational centres, but membership is low.

#### SWEDEN SECTION

**Contributing Editor**: Professor E. F. Bolinder, Division of Network Theory, Chalmers University of Technology, Gibraltargatan 5 T, Gothenburg S, Sweden.

The Section has had two technical meetings during 1968, namely 'Linear Motors' by Professor S. von Zweygbergk, Chalmers University of Technology, on 13th February, and 'Some Problems in Modern Radar Technique' by Mr. Bo Stjernberg, L. M. Ericsson Telephone Co., Mölndall, on 19th February. Both meetings were arranged jointly by the IEEE and Tekniska Samfundet i Göteborg.

Officers of the Section for 1968 are the same as during 1967.

The IEEE Student Branch at Uppsala University has been established by the IEEE Executive Committee. The Branch Counsellor is Professor P. A. Tove.

#### SWITZERLAND SECTION

**Contributing Editor :** Mr. H. Laett, Radio Schweitz AG, Viktoriaplatz 1, 3000 Bern 25, Switzerland.

The Switzerland Section has organised a number of professional events, the high-lights of which were two one-day symposia on satellite communication and industrial research and lectures by famous foreign and Swiss authorities on 'Theory of Bi-directional Communication' and 'Frequency Standards'.

Particularly successful were our student meetings at the Federal Institute of Technology; twelve such events have taken place with never less than 30 students attending. The enthusiasm was so great that we now have a full Section Student Branch.

A meeting of the Region 8 Committee was held in Lausanne on 8th September 1967, when representatives of most of the Sections in the Region were present. The very successful discussions were greatly helped by the contributions from the then President, Mr. W. K. MacAdam, and the General Manager, Mr. Don Fink, who attended and who were also present at the first Student Paper Contest the previous day.

# UNITED KINGDOM AND REPUBLIC OF IRELAND SECTION

**Contributing Editor** : Mr. R. C. Winton, Mullard House, Torrington Place, London, W.C.1, England.

#### Section Student Branch :

The IEEE Board of Directors has approved the establishment of a United Kingdom and Republic of Ireland Section Student Branch, with Professor E. A. Ash of London University as Counsellor. In this capacity Professor Ash is a member of the Section Executive Committee. Plans are being made for members of the Section Student Branch to participate in the 1969 Papers Contest.

#### **Circuit Theory Chapter:**

All members and guests are welcome at a meeting of the Circuit Theory Chapter in the IEE Building, Savoy Place, London, W.C.2, at 5.30 p.m. on Wednesday, 1st May. Dr. R. Spence of the Electrical Engineering Department, Imperial College, will give a talk on 'Some Aspects of Telegen's Theorem'.

## STUDENT ACTIVITY NEWS

**Contributing Editor**: Professor A. Vander Vorst, Electronic Research Laboratories, Louvain University, 94 Kardinaal Mercierlaan, Heverlee, Belgium.

The news from several of the Sections gives very heartening reports of growing student activity.

The second Student Papers Contest will take place in Paris as announced in the first Newsletter, and it was open to students who do not belong to a University Student Branch but who are in a Section which has formed a Section Student Branch. In this contest only one representative per Section was allowed.

Shortage of space required the following two items to be omitted from the first Newsletter :

# Activity Reports from Various Student Branches in Region 8 for the Academic Year 1966-1967 :

(a) Madrid :

The number of student members in the Branch has increased from 39 in October to 71 in May.

This Branch received the Vincent Bendix Award, being ranked second out of seven recipients. The \$500 prize was used to invite Mr. Guillermo Acosta, Senior Engineer from Western Electric Co., Columbus, Ohio, to lecture at a course on 'Switching Theory'. The course was developed in the Escuela Tecnica Superior de Ingenieros de Telecomunicacion during the month of April. An attendance of more than 90 students showed the high interest raised by the subject.

A seminar on 'Noise Theory' was held. Films on 'Nuclear Power Plants' and on 'SECAM TV Colour system' were shown.

The course on 'Switching Theory' as well as two new issues (Nos. 5 and 6) of "BIT" Review were published.

Mr. Jose Antonio Ambrosio is the new Branch Chairman.

#### (b) Padova :

During the academic year the IEEE Student Members have attended a course of English at the Institute of Electrical and Electronic Engineering of the Padova University. About 40 students attended this course. The Student Members of the Padova Student Branch at 20th September reached 70. About 20 students are waiting for election to Student Member grade.

(c) Rome:

The Branch has 41 members.

Visits were organised to the RAI Radio and Television Studios, RAI Broadcasting and Shortwave Broadcasting Centres, Vatican Broadcasting Centre, Leonardo da Vinci Airport Tower, Ciampino Airport, Air Traffic Regional Control Centre, I.B.M. Computer Centre. Lectures were given on 'Circuit Theory' and 'Boolean Algebra'. Laboratory sessions were held on 'Conversion Matrixes', 'Transistor Receiver-Transmitters', 'Presence Signaller at Capacity Variation'.

#### (d) Gothenburg

(Chalmers University of Technology): Chairman : Torgny Cato.

Two meetings were organised in April and May 1967.

At the first, officers for 1967 were elected and the Counsellor, Professor E. F. Bolinder, gave information about the IEEE and reported about his study trip to the United States. The second meeting was a lecture on lasers; an anechoic room, a dust-free room and a new digital machine were shown.

During the year membership has increased rapidly from about 10 to 52.

(e) Louvain :

Several meetings have been organised, usually with an outside speaker. The main topics were: filter synthesis, statistical measurements in power plants, parametric amplification. A three-day session on quantum mechanics was held.

During the Christmas holidays a trip to London was organised. The students were received by the IEE.

The new Counsellor at the Catholic University of Louvain is Professor A. Vander Vorst.

#### (f) Stockholm :

A new Student Branch was founded at the Roya Institute of Technology, Stockholm, Sweden. The Counsellor is Professor B. Enander.

Report of a Trip to the Scandinavian Countries :

In October 1967 a trip to Scandinavia was made by Mr. J. Lebel, the Past Regional Director, and Professor A. Vander Vorst (Acting Chairman of the Student Activity Committee during the absence of Professor P. Jespers on six months leave to Stanford University U.S.A.). They were received in Oslo, Norway, by Dr. Rannestad and other officers of the Norway Section. A visit was organised to the Norwegian Institute of Technology, Trondheim, to discuss IEEE Student Activities with Professors Selseth, Tonning and Simonsen. In Sweden, the two Student Branches (Gothenburg and Stockholm) were visited. A student meeting was held at Uppsala University (Professor Tove), where there exists a good chance to start a Student Branch. In Helsinki, Finland, Professor Tiuri organised a talk for more than 50 students. There also, the chances to start a Branch are high. In Lyngby Denmark, a very interesting conversation took place with Professor Bruun. The two visitors were very much impressed by the standards of all these Scandinavian Universities. It appears that IEEE Student activities will expand on a very large scale during the next few months.

### Message from the Editor

Even though no news has been received from a particular Section since the last Newsletter, it seemed beneficial to include the name and address of the Contributing Editor so that members in each Section have someone to write to on IEEE matters should they so wish.

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