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field of communication engineering and has published a book: *Mathematische Systemtheorie: Dynamische Konstruktionen* (1978). His recent interests are in system methodology and applications in signal processing and image processing.

EDITORIAL

Having devoted most of the first issue to the background of the formation of IFSR and to an outline of the characteristics of the founder members, it is good to be able to report progress on three fronts: offices, journal, membership approach (see top of page 2).

Most of the content of this number is concerned with research activities in member societies and elsewhere. With the help of contributors who write to the editor on their interests and work, we hope to make future issues into a kind of 'international bulletin board' on systems and cybernetics teaching as well as activities in member societies and elsewhere.

Space forced out the planned report of IIASA developments but that column will be resumed in Issue No. 3.

The editor will be pleased to hear from anyone at any time with suggestions and criticisms and gladly acknowledge individual contributions received. Your help will be most welcome.

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IFSR NEWS

The search is over!

After nearly 12 months effort which involved inspection of and negotiations for a dozen or so possible premises by the Vice-President of IFSR, Professor Dr. Robert Trappl, in cooperation with officers of the Austrian Federal Ministry for Science and Research, permanent premises to house IFSR in Laxenburg have been secured. They are expected to become available before the end of the year, when they will replace temporary accommodation provided by ASCS at their own offices and seminar rooms at Schottengasse 3, A-1010 Vienna I.

The Laxenburg address will be at Hofstrasse 1, A-2380 Laxenburg, Austria, an attractive corner building opening out from Hofstrasse to the Schlossplatz, conveniently close to the IIASA offices and IFAC offices. Special provision will need to be made for a 'Depository' of papers, tapes, slides and other material built up by Professor Dr. George Klir during his editorship of 'General Systems — An International Journal'; an accumulation of research information which he has, very kindly and generously, offered to lodge with and put at the disposal of the IFSR.

NEWS FROM MEMBER SOCIETIES

SYSTEEMGROEP NEDERLAND

Systems Research Video

This project by the Systeemgroep Nederland was taken a step further when Dr. Glanville of the London Cybernetic Society, UK, spent two weeks with Prof. Dr. Gerard de Zeeuw at the Institute for Andragology, University of Amsterdam. Together with James Powell and others, they aimed to produce films which demonstrate visually ideas on context-dependent and other types of systems research. The first is now ready; it can be obtained from Dr. Ranulph Glanville, Portsmouth Polytechnic, King Henry I Street, Portsmouth, PD1 2DY, England. Alternatively, US adapted copies may be ordered from Dr. Bill Reckmayer, Cybernetics and Systems Program, San José University, San José Cal. 951921, USA.

Inventory of Systems Research in the Netherlands

Professor Dr. J. van Zouwen of the Systeemgroep Nederland very kindly sent us a copy of his 'Inventory of Systems Research in the Netherlands', which in fact is a complete 'Who's Who' in Netherlands Systems Research. The preface outlines purposes, coverage and procedure:

"In order to facilitate the communication between and the cooperation of researchers using the systems approach, the Systeemgroep Nederland has taken the initiative in making an inventory of all systems research (SR) conducted in the Netherlands. Their problem was: What kind of SR is done by whom and where?"

Seven years ago, when I began inventorying SR I had only a short list of people involved in research labeled 'SR'. I therefore used the 'snowball procedure': I not only asked these people to give a short description of their research projects but further to mention the names of colleagues also doing SR. These colleagues were asked the same questions, etc.

Four 'rounds' of this snowball procedure resulted in an inventory containing names of more than 70 researchers and/or research institutions, including their addresses and short descriptions of the research problems on which they were working. This inventory was published in the 47th 'Nieuwsbrief' of the Systeemgroep Nederland.

In order to facilitate communication with research in other countries, this inventory was translated into English. In the meantime the inventory was made more complete and more up to date. That second version of the inventory was published in the 55th Nieuwsbrief; the third version was distributed at the conference on 'Problems of Context', Amsterdam, April 1979.

This fourth version comprises information received during the first months of 1981. Those entries in the inventory which are different from the third version are indicated by an asterisk. Comments on this inventory aimed at correction and completion will be appreciated strongly".

Perhaps scientists elsewhere may find time to get a similar process under way in their own countries. Below we show the style of entries (excluding individual addresses given in the original):

Dr. ir. G. BROKSTRA, Delft.

Development of the theory of constraint analysis (information theory) with special application to systems methodology (emphasis on structure modelling).

Development of an information-processing view of organizational structure and behavior.

Prof. dr. G. de ZEEUW, Amsterdam.

Psycho-social ambulatory welfare by which welfare is conceived as a system of systems (with drs. P. P. Groen and drs. A. Kersten). Action-research as research of systems (with drs. P. Groen). Data representation in information systems for adult education (with dr. L. Hoekstra).

Methodology for inquiry into action-oriented systems.

Prof. dr. J. van der ZOUWEN, Amsterdam.

Application of the black box approach (from systems methodology) to research concerning the information-distortion in the sociological interview. Construction of a simulation model of the interview process with M. Nowakowska and W. Dijkstra).

Modelling Interaction-sequencies in dyadic conversations.

Further particulars may be obtained from Professor van der Zouwen at the Vrije Universiteit, Dr. Boelelaan 1115, Amsterdam.

Negotiations for a publisher and an Editor-in-Chief, conducted by Professor Klir, are well advanced and there is every hope to finalize the position at the April 1982 meeting of the IFSR Board.

Membership

The Secretary/Treasurer, Dr. Gerhard de Zeeuw — with the agreement of the Board of the IFSR — sent a letter to about 12 societies who had earlier expressed interest in joining IFSR. The letter outlined arrangements and conditions suggested for acquiring membership of the Federation.

ACS	American Cybernetic Society
ASCS	Austrian Society for Cybernetic Studies
EMCSR	European Meeting on Cybernetics and Systems Research
ICNL	International Cybernetics Newsletter
IIASA	International Institute for Applied Systems Analysis
SGSR	Society for General Systems Research
SN	Systeemgroep Nederland

AUSTRIAN SOCIETY FOR CYBERNETIC STUDIES

The society held its Annual General Meeting on 22nd January 1982 in the society's offices at Schottengasse 3, A-1010 Vienna I.

The President, Professor Dr. Robert Trappl reported on the activities of the society during 1981 which included 24 Colloquia in Cybernetics besides continued work on current research projects supported by the society and/or aided financially by outside agencies.

These projects include "Computer-Assisted Medical Diagnosis and Therapy", funded by the Jubiläumsfonds of the Austrian National Bank, and "Software-Innovation, especially Artificial Intelligence Methods, in Medicine", funded by the Federal Ministry for Science and Research. Both projects are performed in close cooperation with the Department of Medical Cybernetics of the University of Vienna, the latter one also in cooperation with the International Institute for Applied Systems Analysis (IIASA).

Some of these projects were reviewed in some detail and proposals for future work outlined and approved. In addition to a respectable number of papers published by members in various journals, the society added to its list of reports published during the year.

Cybernetics and Systems — An International Journal, the 'house organ' of the society continued to develop well with Professor Trappl as Editor-in-Chief. Professor Dr. Franz Pichler reported on his attendance at the 26th Annual Meeting of the SGSR, as well as discussions that had taken place on that occasion between members of the IFSR Board. Professor Pichler also brought greetings and news from colleagues he met which included favorable comments on the contents of ICNL, the Newsletter of the ASCS, now completing its 6th years of publication.

In line with ASCS practice, the President formally resigned after making his report to the members of the AGM and was duly re-elected by a unanimous vote (taken in his absence). After he resumed the Chair, details for future programs were given consideration. At a subsequent meeting of the EMCSR 82 Organizing Committee, progress of the preparatory work was reviewed. Prof. Trappl, who will chair the meeting, reported that the number of papers, totalling 195 represented what the dual refereeing process, employed for the first time, had selected from 260 abstracts received; each abstract went to two referees, one of them the symposium chairman, the second, another similarly qualified scientist. If their independently arrived at verdicts agreed, acceptance or rejection was automatic. Where they disagreed, the chairman of the meeting considered it his duty to scrutinize the contribution himself (aided by the referees' comments accompanying their decision). It is felt that such a

THE SOCIETY FOR GENERAL SYSTEMS RESEARCH

The International Conference on Systems Methodology and the 26th Annual Meeting of the SGSR took place in Washington D.C. from 5—9 January 1982.

Ambitiously laid out in the form of 4 Plenary Addresses, interspersed with Paper Session as well as some 20 Symposia on Applications of Systems Methodology in various fields, the three volumes of its Proceedings make impressive reading. Entitled **General Survey of Systems Methodology** they group the papers under

1. Conceptual and Mathematical Tools
2. Application to Real Systems

Vol. 3 is a supplement containing a further additional 25 papers running to 50 pages. Volumes 1 and 2 of 500 pages each are comprehensively author and author-cited indexed which of course enormously adds to their value as works of reference.

A Preface by L. Raphael Troncale, the General Editor, goes with each of the two volumes. A full list of participants with their affiliations and addresses and complete details of schedules was also made available in handy form. The Program Survey included offers a useful and concise definition of its objectives and purpose:

"Systems methodology as a theme of this conference is viewed as (i) the study of method in systems investigation, and (ii) a coherent collection of methods, which result from this study, for making inquiry into relational, dynamic, or structural properties of various classes of systems problems. The program of the conference is not restricted to any particular 'school of thought' or a particular problem area in systems methodology. On the contrary, an active effort has been made by the organizers to provide a forum for the broadest possible exchange of ideas relevant to systems methodology."

The Proceedings demonstrate the satisfying extent to which these aims have been realized in the act. The Editor is surely to be congratulated on a monumental task, well done, in record time.

Professor Franz Pichler, Vice-President of the ASCS, writes to say that he found his attendance at the meeting very well worth while; the quality of the papers good, with some outstanding contributions in the session on Systems Methodology, on Systems Engineering and Energy Management (which he chaired) from Japan, Brazil and USA, and has a special word of praise for the excellence of the secretarial work in general.

system of dual quality control should go a long way towards ensuring a good standard throughout, without suppressing all and every contribution that may not find general approval on account of its unorthodoxy of context or treatment.

NEWSLETTER DIGEST

THE SGSR BULLETIN,

VOL. 12, NO. 1, FALL 1981 understandably devoted 36 of its 68 pages to listing contributions to the SGSR January 1982 conference. This issue, in addition to the usual features, reviews of abstracts of recent publications etc. includes a report on IFSR by Prof. George J. Klir, President of SGSR, and a very thoughtful and challenging contribution by Prof. J.N. Warfield, President-elect of the SGSR, on "Criteria for Selecting Research Topics", addressed to system researchers. Lack of space prevents us from reproducing this in full here but we hope to include its essence in our next number.

Now that this issue of making research output as positive and valuable as possible by agreeing/accepting some common guidelines on themes, fields and approaches in which work might to advantage be usefully concentrated (which has troubled many leading systems researchers for some time) has been raised at that level, we are bound to hear more about it as time goes on. Prof. Klir's continued emphasis on systems methodology is already an outstanding application to such a trend.

Also included is the Managing Director's report and a set of Notes from the Year Book editor, but special attention should be drawn to the announcement by Bela Banathy of an International Colloquium on Education for Systems Thinking and Action, planned to take place some time between Summer 1982 and Fall 1983, when participants will exchange views and program ideas about education for systems thinking by mail prior to the Colloquium and will also design and evaluate models for systems education programs.

"The Proceedings of the Symposium will be published by Intersystems Publishers in their System Inquiry Series (SIS). Plans will be made for the development and implementation, and reports on the refinement of the programs developed will also be published in SIS".

A two page background paper 'Background and Rationale' follows this announcement.

THE AMERICAN SOCIETY FOR CYBERNETICS NEWSLETTER

The November 1981 issue of the ASC Newsletter is as ever both highly informative and thoughtful; the fare offered leavened by the occasional chuckle. The November 1981 meeting of the ASC (the first for a number of years) on the theme 'The New Cybernetics' has been such a 'roaring success' that another meeting is planned for the Fall of 1982. There were several offers for setting up new chapters for which contact addresses are given.

Other items include 'Careers in Cybernetics', which proposes preparing a booklet on the pattern of similar AAAS brochures for careers in other fields. Under 'Notes on the Machine Age' we find a reference to WORM, a really daunting proposition: "Two scientists Hupp and Shoch at Xerox Research Center have developed an aggressively 'invasive' computer program called WORM, which 'worms' its way into other computers interlinked on a network, replicates itself and destroys any program they were running. At the laboratory the two computer scientists had access to a network of 100 small computers linked to a system called Ethernet, which Digital Equipment, Intel and Xerox have produced. Last winter Hupp and Shoch left their WORM program running on a few of these computers overnight; by morning, it had in-

vaded dozens of other machines and put them out of action. If one of these machines were restarted, it soon would be invaded by WORM again. Every invaded computer must be cleared and reprogrammed to get rid of the menace. Isn't this a little scary?"

THE INTERNATIONAL CYBERNETICS NEWSLETTER

(published by the ASCS as part of Cybernetics and Systems — An International Journal but also available separately) continues its policy of building as comprehensive a picture of the current cybernetics/systems scene as can be accomplished within the compass of the 100 or so annual pages published quarterly. Key features in Issue 22 (Autumn/Winter 1981):

ASCS Vienna Colloquia. Systems, Cybernetics, Computers and Education (which includes Primary School and Before. Computers in Secondary, Graduate and Postgraduate Education. Computers Aiding Deaf Children to Speak). Teaching Applied Cybernetics at Manchester Business School. Academic Systems Engineering Courses in China. A Note on an International Working Conference on Model Realism at Bad Honnef (BRD).

NOTES ON TEACHING AND RESEARCH

The Editor's request for individual information for this column, circulated also by Prof. Klir and Prof. de Zeeuw, has so far drawn few responses.

USA Prof. Thos. J. Ferrara, Professor of Sociology and Mathematics, University of Pittsburgh, has taught courses on the theme: Cybernetics in Behavioral Science for graduate students and for 1982 plans a graduate course which will compare Kenneth Boulding's societal evolution theory (in his **Ecodynamics**) to Talcott Parsons' evolutionary model. Prof Ferrara has recently published a paper presenting an application to sociological theory: Biased Networks and Social Structure Theorems" **Social Networks 3** (1981)

Holland Prof. A. A. Verveen, Physiological Laboratory, RU Leiden, Wassenaarsweg 62 has in 1981 and 1982 taught courses on Regulation and Diseases, and System Pathophysiology; in 1982 he is also continuing his research on the Theory of Systems Pathophysiology.

France Prof. Charles Bogdanski, Associate Professor of Biophysics at the Université René Descartes, Paris, sent us an advance version of his monograph: Propedeutique Physique et Systemique de Biophysique. Its purpose (translated into English) is to establish a liaison between Biophysics and General Physics. The French text runs to 50 pages including a bibliography of 33 items. The essence is transmitted in another 50 pages of diagrams followed by a Glossary, and about 20 pages of commentary on selected parts of the text. Prof. Bogdanski will read a paper: Basic Elements of Cybernetic Physics at the EMCSR 82 in Vienna in April 1982.

The French Government is reported to be campaigning against French scientists reading papers in English at meetings held in France. The answer is to point to the reduced 'audience' they would have since English is, worldwide, the best known language (followed by Spanish) with French ranking eleventh if Russia and China are taken into account.

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