

International Federation For Systems Research

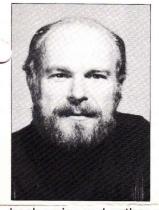
NEWSLETTER

AUTUMN 1981

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Editorial Office: Prof. F. de P. Hanika, International Secretariat of the Austrian Society for Cybernetic Studies, Haus Hanika, A-8524 Bad Gams 92 to whom all material submitted for publication should be sent.

OFFICERS OF THE IFSR



President: George J. KLIR

is a professor of systems science and chairman of the Dept. of Systems Science at the State University of New York at Binghamton, NY. He received his Ph.D. in computer science from the Czechslovak Academy of Science in Prague. He is President of the Society for General Systems Research, Editor of the International Journal of General Systems, editor of two

book series and author or editor of 12 books and over 70 papers in the areas of systems methodology, discrete mathematics and computer architecture and design.



Vice. President Robert TRAPPL

(Ph. D. Vienna), Professor in the Faculty of Medicine, University of Vienna; Director of the Institute for Medical Cybernetics of the University; President of the Austrian Society for Cybernetic Studies, Vienna since its foundation in 1970; Editor of Cybernetics and Systems: An International Journal and General Editor of Progress in Cybernetics and Systems Research, Vols. I—XI.



Secretary/Treasurer Gerard de ZEEUW is Professor in the field of social change at the University of Amsterdam. He has a Ph.D. in philosophy and is board member of various Dutch scientific organizations: an associate editor of SYSTEMICA. He was for many years consultant in applied and pure research projects.

EDITORIAL

The IFSR wish to use this first official publication of the Federation to record their thanks and appreciation to Dr. Firnberg, the Federal Minister for Science and Research for her help in arranging the financial support and office accommodation for the Federation on behalf of the Austrian Government. Thanks are also due to the officials concerned in this matter, especially to Herr Rat Dr. Rozsenich, who took a leading role.

This is the first Newsletter to appear after the IFSR Annual Meeting of The Board of the IFSR. Some decisions taken there are detailed in our "Points" feature on page 3. Appearing three times a year, brevity of reporting will be our aim to present multum in parvo about activities, projects, programs and events organized by IFSR and its member societies as well as other items of interest to Systems and Cybernetic people.

Suggestions and contributions will be welcome and acknowledged to contributors.

IFSR GOALS

by Prof. Bela BANATHY

(Approved by the IFSR Board at its Meeting in June in Vienna, Austria)

- Strengthen the programs of member societies by their involvement in the program and network of IFSR. (Social Learning Goal)
- Facilitate (encourage) the development of systems science in countries in which such programs do not yet exist or are now developing.

(Membership Development)

■ Develop — Implement — evaluate IFSR level programs to meet the purposes of IFSR; to advance system science.

(Synergic Goal)

Identify inventory system science relevant resources, acquire those and make them accessible to member societies.

(Resource Development Goal)

Make contribution to the larger (global) scientific community and be of service to improve the (global) human condition and enrich the quality of life of all.

(Global Mission)

BACKGROUND TO THE INTERNATIONAL FEDERATION FOR SYSTEMS RESEARCH

Originally envisaged as a European Federation for Cybernetics and Systems Research. In discussion between Prof. Dr. Robert Trappl, President of the Austrian Society for Cybernetic Studies and Professor Gerrit Broekstra and Professor Gerard de Zeeuw of the Systeem Groep, Nederlande plans formulated at the European Meeting for Cybernetics and Systems Research 1976 in Vienna were later reshaped at the EMCSR 78 in Linz, when Professor Klir (and others) indicated interest in their respective assiociations joining such an organization to set up an International Federation. Now IFSR has become a registered body as a "Verein" under Austrian law on March 12, 1980, located at Laxenburg (Austria) instead of the Netherlands as contemplated at first. This change is the outcome of the successful efforts by the President of ASCS to interest the Austrian Federal Minister for Science and Research, Dr. Hertha Firnberg, in supporting the new venture. However, as the premises at Laxenberg are not yet available, the Federation address will meanwhile be at Schottengasse 3, Vienna, Austria.

THE FOUNDER MEMBER SOCI

ÖSTERREICHISCHE STUDIEN-GESELLSCHAFT FÜR KYBERNETIK

Austrian Society for Cybernetic Studies A-1010 Wien 1, Schottengasse 3, Tel. 636112

A non-profit organization of scientists and practitioners, founded 1970.

Aims: Its aims are "the study of the theoretical bases of cybernetics and its special fields, the investigation of its applications on technical, economic and social problems, its relations to problems studied in the natural sciences and the humanities; furthermore, education in the methods of cybernetics and its technical aids, especially in electronic data processing; finally, advancement of interdisciplinary studies, and the representation of Austria in international organizations" (Art. 2 of the charter).

Research activities: The relation between the foundations of theoretical physics and cybernetics, the application of information-theoretical measures to the analysis of different languages, the development of fast interactive simulation programs, mathematical models of social stability and structural change, computer-aided planning of health care resource requirements.

Journal: "Cybernetics and Systems: An International Journal".

Reports: Appearing at irregular intervals, they present results of recent in-house research-work, experiences of practitioners or critical surveys. They include notable work by other scientists of interest to the scientific community.

Education: In addition to introductory seminars on cybernetics and informations, 16 concentrated courses were given on topics of theoretical and applied cybernetics. The majority of our participants come from the universities, the ministries, firms and banks. As another activity, leading scientists or experts on applications are invited to give a lecture about their latest work. 87 scientists from 22 countries have so far been guest speakers.

Consulting: On several occasions, the Society has been asked to serve in a consulting capacity on federal and civic projects.

Funds: The Society attempts to cover the bulk of its costs by modest tuition charges for the courses it offers and its consulting activities. Further support is received from the Federal Ministry of Science and Research, the City of Vienna, and other industrial and official organizations.

International Relations: The Society maintains close contact with the Society for General Systems Research and the Nederlands Systeem Groep. The Society has coopera-

SOCIETY FOR GENERAL SYSTEMS RESEARCH

Offices: Systems Science Institute, University of Louisville, Louisville, Kentucky 40292, USA.

Founded in 1954, the overall purpose is to promote philosophical and theoretical views of systems through encouraging research and facilitating communication between and among scientists and professionals from various disciplines and professions at local, regional, national and international levels. Its aims are:

- To foster the investigation of the isomorphy of concepts, laws and models in various disciplines and professions.
- To facilitate transfer of concepts, laws and models across disciplines and professions.
- 3. To encourage development of theoretical models where they are lacking
- To minimize duplicating efforts between and among disciplines and professions
- To perform, encourage and provide for charitable, religious, scientific, literary and educational acts and works

The society sponsors 4 kinds of publications; spons several kinds of meetings. As an affiliate of the AAAS, Society's Annual Meeting is held in conjunction with and as part of the Annual AAAS Meeting. It also holds regional program meetings in large centers in USA and overseas, such as the Austrian Society for Cybernetic Studies the Institute of General Semantics and the International Conference on Computer Communication.

The society is internationally active through its (a) Overseas Regional Divisions (b) consultative relationsship with major UN entities: UNESCO and ESOSOC (c) participates in UNEP (United Nations Environment Program) in Nairobi, Kenya.

The society encourages and supports the formation of local chapters worldwide.

ted with these two groups in establishingthe International Federation for Systems Research. The Society invites also non-Austrian scientists to join the Austrian group by becoming International Affiliates. Pleas ask for special information form.

Conferences: The Society has organized since 1972 its biannual Euroean Meeting on Cybernetics and Systems Research.

BRIEFS

Professor Bela Banathy, Vice-President and Managing Director of the SGSR sends us the following:

"An invitational symposium is planned for April 5—8, 1982, in the Salzburg area (prior to the Sixth European Meeting on Cybernetics and Systems Research in Vienna). The symposium will introduce a five-year program development effort that would explore the contribution of systems science to global learning and the improvement of human conditions.

Co-chaired by Bela H. Banathy and George Klir, the symposium is sponsored by Intersystems Publishers".

- IFSR will sponsor the meeting of the SGSR in January 1982 in Washington. The first meeting to get this stamp of approval.
- The Ashby Memorial Lecture at this meeting will be both sponsored and funded by IFSR.
- Criteria for membership are presently being worked out by members of the IFSR Board.
- The publication of the Federation's Journal is in active preparation; negotiations with publishers near completion.

ETIES

SYSTEEMGROEP NEDERLAND

Secretariat: Dr. H. Oud, Erasmusplein 1, 6 500 HD Nijmegan, Holland.

The SN was founded in 1970 to promote interdisciplinary research activities based on the systems approach and more generally to stimulate the study of systems and systems theory.

The SN has tried to realize its aims in a variety of activities. It published the Annals of Systems Research (stopped after 7 Vols. for financial reasons). It managed a Newsletter and has just started a new journal SYSTE-MATICA. The group organizes also yearly Summer courses for graduates from Dutch universities; also an International Summer School was started in 1979; it is intended to have a second one in 1982. The group has also organized a biannual series of meetings on various types of problem areas in inquiry. In 1979 the conference was on "Problems of Context"; in 1981 on "Problems of Levels and Boundaries"; in 1982 the provisional topic is "Problems of Grounded Action". In the Course of each year various speakers of international repute have been invited. A culmination of such an activity happened in the Volendem meeting organized for the 10th Anniversary of the SN.

SN supports itself entirely, mainly via tuition fees and sales of publications. It has now a solid financial basis.

Members of SN have a strong interest in international cooperation. They attend many meetings and are part of many organizations; it has a bilateral treaty of cooperation with the Polish Cybernetical Society.

From Prof. Dr. R. Trappl, President of the Austrian Society for Cybernetic Studies:

"On behalf of the Council of the Austrian Society for Cybernetic Studies I have the great honour and pleasure to announce that its Vice-President, director of the International Contacts Secretariat and editor of the International Cybernetics Newsletter, Professor Francis de Paula Hanika, M.A. (Cantab) has been awarded the degree of Doctor of Science, Honoris Causa, by the City University of London. This degree will be presented to Prof. Hanika at the Congregation on 7th December 1981.

The Society wholeheartedly congratulates Professor Hanika on this very special honour and wishes the young doctor many years of fruitful work in the area of cybernetics and systems research."

School of Advanced Technology (SAT), SUNY, Binghamton, New York, USA

The comprehensive brochure of this institution, developed by Professor Klir, holds information of general interest to systems people, such as a clear exposition of the term "system" as interpreted at SAT and the ways in which the objective of developing both interdisciplinary analytical and problem solving skills are handled.

Faculty and their individual research interests, syllabi, etc. are listed as well as publications and particulars of Ph. D. graduates, 1976 to 1978.

- Plans for building up a Library at HQ of selected material for the use of students and researchers. This is expected to include the General Systems Depository built up by Prof. Klir in his capacity as Editor of the International Journal of General Systems.
- Among research plans presently discussed is a "Who's Who" of prominent systems/cybernetic scientists in various countries. Proposed by the ASCS with the support of IFSR.
- The next meeting to be sponsored by IFSR is the International Working Conference on Model Realism, at Bad Honnef, near Bonn, FRG, on April 20/23, 1982, organized by the Gesellschaft für Mathematik und Datenverarbeitung.
- The EMCSR 82, organized by the ASCS is under the patronage of the Federal Minister for Science and Research, Frau Dr. Hertha Firnberg, the Federal Minister for Health and Environmental Protection, Dr. Kurt Steyrer and the Mayor of Vienna, Dr. Leopold Gratz.
- The Number of Newsletters reaching this office in growing. We hope to include a note on those distributed by the American Society of Cybernetics, the London Cybernetic Society (UK), the Association Francaise pour le Cybernétique Economique et Technique (AFCET), and the Association de Cybernétique, Namur, in our next issue.
- General Systems Methodology is to receive increasing emphasis on the part of the SGSR as indicated by the Symposia at their January 1982 meeting in Washington, and a Special Interest Group within the Society is devoting time to this theme
- The Proceedings of the 1979 and 1980 Research Conferences of the Systeem Groep Nederland (Problem of Context, 1979) and Levels and Boundaries (1980) are available and can be supplied on request to the Systeem Groep Nederland's Secretariat: Dr. H. Oud, Erasmusplein 1, 6 500 HD Nijmegan, Holland.

NEWS FROM IIASA

This will be a regular feature as IFSR maintains contact with the Institute of Applied Systems Analysis at Laxenburg at several levels. At the time of writing the big news is that the successor to Dr. Levien (who in his 6 years tenure has achieved worldwide renown for the Institute and its work) has been appointed. He is Professor C.S. Hollings who hails from Canada and who has had a distinguished career teaching and researching in the universities of Berkeley and British Columbia and has been consultant ecologist with the Ford Foundation. His main interest has been in developing two streams of activity — one the fundamental study of ecological systems and processes, and one concentrating on application and policy analysis from which the focus of his IIASA research is emerging. He expects initially to concentrate on developing a methodology to express the property of resilience, going on to illuminate the principles of resilience, and finally, on the basis of the conceptual analysis, to develop a policy and planning framework that can give recognition to the resilience of systems. He will beome Director of IIASA on 1 December 1981 for a three year term.

A seminar on "Global Models" took place at Laxenberg on 10th to 18th September 1981. The comprehensive briefing strongly focused on purposiveness and refinement — logical and mathematical — including a list of searching questions asking the model makers to defend the practical aid his model provides to particular decisions by its validity and resilience.

The report of a similar seminar on "Innovation" is expected to be available in print (Pergamon, Oxford).

A 225 page report "Energy in a Finite World" dealing with the essence of IIASA's "Energy Project", which may be considered the most comprehensive integrated effort Laxenberg has put forward so far, by Ballinger Publishing Company, Cambridge (Mass.) An "Executive Summary" condensing the basics and conclusions (with the aid of numerous colour diagrams into the narrow compass of a mere 60 pages) is available from IIASA, 2361 Laxenberg, Austria.

MEETINGS ARRANGED BY MEMBER SOCIETIES

SOCIETY FOR GENERAL SYSTEMS RESEARCH

International Conference on Systems Methodology and 26th Annual Meeting of the Society, January 5—9, 1982, at the International Inn, Washington D.C., U.S.A.

20 Symposia, 5 Plenary Sessions, Memorial Lectures for Ross Ashby and Ludwig von Bertalanffy.

Symposia include:

Methodology of Systems Design, Fuzzy Systems, System Methodology and Conflict Resolution. Systems Methodologiy applied to Government, Mathematical Aspects, Computer Aspects, Information Theory, and Education. Systems Methodology: Philospophical Aspects Engineering, Psychology/Psychiatry, Resource/Energy Management

Systems Methodology in Management, Health Care, Ecology, Systems Methods in Urban and Rural Planning. Systems Methodology in the Social Sciences, Biological Sciences, Physical Sciences, Education in Systems Methodology.

For more details apply to Dr. L. Troncale, Director, Institute for Systems Studies, California State Polytechnic University, 3801 West Temple Ave., Pomona CA 91768, USA.

AUSTRIAN SOCIETY FOR CYBERNETIC STUDIES

The 6th European Meeting on Cybernetics and Systems Research, April 13—16, 1982 at the University of Vienna.

Ten Symposia (the number reduced in line with majority vote by past participants).

Symposia include:

General Systems Methodology (G. Klir)

Systems and Decision Theory (F. Pichler/A. Wierzbicki)

Cybernetics in Biology and Medicine (L. Ricciardi)

Cybernetics in Cognition and Learning (G. Pask)

Cybernetics in Organization, Management and Society.

(F. de P. Hanika/Rolfe Tomlinson)

Health Care Systems (N. Bailey/W. Buchstaller)

Energy Systems (R.S. Caputo)

Fuzzy Sets (C. Carlsson)

Communication and Computers (A. Lee/W.D. Rauch/

J. Schwärtzel)

Artificial Intelligence (W. Horn / P. H. Winston)

For more details apply to the Austrian Society For Cybernetic Studies, Schottengasse 3, A-1010 Vienna, Austria

PUBLICATIONS

Maturity of a science is reflected not only in the quality and quantity of material but also the extent to which means for its dissemination have been developed. Here the Wiley/IIASA International Series on Applied Systems Analysis, soon to reach 20 volumes leads the field. Abacus Press is busy with the Cybernetics and Systems Series, edited by J. Rose, for graduates and interested laymen. A newcomer, Intersystems Publications has already made its mark by bringing its Systems Inquiry Series to some 12 volumes in as many months (at prices as low as \$ 9.95), edited by B.H. Banathy and G.J. Klir).

Even more significant, perhaps, are the publications brought out by the scientific societies themselves such as the Year Book Series produced by SGSR and SN respectively, and the series of Reports published by the ASCS, now numbering more than 20, which in the main cover research, commissioned and/or carried out by the Society. In addition, there are quite a few thousand pages of Proceedings published by the societies, as well as the constant flow of quarterly journals, i.e. Behavioral Science (SGSR), Cybernetics and Systems (ASCS) and SYSTEMICA (SM) the latter in Dutch.

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