Dear Readers!
This Newsletter has been delayed for many reasons. It should have been published in early October but three mishaps occurred within 2 weeks: at first the central disk-storage of our server broke down, then y we realized that as a result of human oversight the back-up versions were not fully adequate and finally my own personal computer (I use a notebook) also gave up. It meant that we lost data and – worst of all – we lost valuable time which we needed in order to start off the new semester on October 1st. The Newsletter simply had to wait.
But now it is in your hands and I hope you will enjoy it. I would like to point out to you the announcements of next year's IFSR events: the EMCSR in Vienna and the associated meetings of the IFSR. I am looking forward to seeing you there.
Yours sincerely

Gerhard Chroust

BUILDING IFSR AS A VIABLE COMMUNITY OF SYSTEMS SOCIETIES

Bela H. Banathy

In the course of recent years we have solidified the services that IFSR offers to its member organizations. These services have been offered in four areas.

- SYSTEMS RESEARCH, the journal of IFSR, continues to flourish under the editorship of our Vice President, Mike Jackson. In the next issue we will have a report from Mike about incorporating Behavioral Science into Systems Research and increasing the number of issues to six a year.
- Our Newsletter, edited by Gerhard Chroust, our Secretary/Treasurer, is also making fine advances in providing substantive article and in reporting on events of the systems community.
- Reports of the Research Teams of the 1996 Fuschl meeting are available to our member organizations and four research teams are making intensive preparation for the 1998 event.

- The IFSR book-series is growing continually to grow under the editorship of George Klir. Our Executive Committee met in July.

The most significant progress in the program of IFSR is expected to come about from the organization and work of IFSR committees. During our planning session in 1996, we defined the programs of the research and program committees. We expect these committees to commence operation in 1998. At the 1998 Strategy Meeting we shall focus on the work of the publication, community building, and systems education committees. We request that our member organizations come to the 1998 Board Meeting and Planning Session with ideas for the work of these committees as well as with nominations for membership in the five committees. Invitations for the 98 Board Meeting and Planning Session are included in this News Letter.

Bela H. Banathy

IMPORTANT DATES:
IFSR BOARD MEETING:
April 15, 1998, 17.00, Vienna

IFSR STRATEGY MEETING:
April 18, 1998, 9.30, Vienna

EMCSR '98
April 14-17, 1998, Vienna

FUSCHL Conversation
April 19-24, 1998, Fuschl near Salzburg

Fuschl-Conversation 1996

VIRTUAL FACTORY

It is difficult to teach the concepts of CIM (Computer Aided Manufacturing) and to explain how the various departments of a facto ry (Accounting, Billing, Acquisition of Raw Materials, Planning of Production, Actual Production) work together and influence one another. To overcome some of these difficulties the European Project *Virtual Factory* will provide a complete simulation of a complete enterprise. Each function of the enterprise is simulated on a separate computer. Students play different roles in this 'enterprise', giving them hands -on experience with these functions and a the same time allowing them to get the complete picture of the enterprise's processes.

The Virtual Factory: simulating a real enterprise

11 partners (both from academia and industry) from 5 countries take part in this European project. The project will be finished by end of 1999.

Contact: A. Wintersteiger,
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Kepler Univerisity Linz, ,
4040 Linz, Austria
email: aw@sea.uni-linz.ac.at
http://www.sea.uni-linz.ac.at

CONFERENCE REPORTS

How can we teach
Systemic Thinking?
IDIMT'97, Zadov, Czech Republic
Oct. 15-17, 1998

IDIMT is a yearly meeting of scientists mainly from Austria and the Czech Republic. Its main topic is Information Management. Information Management, however, becoming pervasive in many companies, seems to create many systemic problems. Thus one of the issue s which came up at IDITM'97 was the question of how to teach systemic thinking. In the next IDIMT-Conference (1998) a whole session will be devoted to these subjects.

Other topics of IDIMT 97 were:
- Datawarehousing and Data Mining
- Hopes, Realities and Perspectives of Business Process Reengineering
- Human Aspects of Information Systems
- Process Improvement, Certification and Quality Systems
- Innovation Process and Enterpreneurship
- Education by Distributed Communication

Starting 1997 a new scheme was ado pted. 6 keynote speakers were selected initially. Their keynote papers were published in the Internet. In the Call for Papers potential contributors were asked to provide position statements linked to the keynote papers. At the conference the keynote speeches (25 min) were followed by two to four short position papers. Then an extensive discussion period was provided. These scheme received uniform acceptance, especially the long discussion time was appreciated.

The next conference will take place 21. -23 Oct 1998, again in Zadov (near Vimperk, Czech Republic)

Proceedings: Hofer, S., Doucek; P. (eds.): IDIMT'97, 5th Interdisciplinary Information Management Talks, Schriftenreihe der Österreichischen Computer Gesellschaft, Oldenbourg 1997

For contacts and further information see Calendar of Events

1st National Conference on Systems Science
Systems Science to design a sustainable development
Milan, June 24-26, 1998
Universita' degli Studi di Milano

Contributions are sought which focus on the topic of sustainable development and their relation to the use of computers.
- Cybernetics, Automata, Robotics
- Education: the "induction" of systems thinking
- Emergence and systemics in the disciplines:
- Ethics and social systems
- General Systems
- History and evolution of systemics
- Informatics and systemics
- Models and systems
- Multi-disciplinarity, Inter-disciplinarity, Trans-disciplinarity
- Neural Nets, Cellular Automata
- Self-organization, Chaos, Complexity
- System Dynamics
- Systemic approach to cognitive Science
- Systemic approach to natural Language
- Systemics and environmental science
- Systemics and management, organizational problems: socio-economic systems
- Systems science to design a sustainable development
- Theoretical problems in systemics

Italian is the official language of the Conference, lectures in English are possible. Papers for the Proceedings must be in English, written and submitted in 'WORD' in order to allow international diffusion. Texts *(in English only)* should not exceed 2500 words.
Dates:
Dec. 31,1997   receipt of submitted papers
Feb. 28,1998   notification of acceptance
April 30, 1998   final text

World Multiconference On Systemics, Cybernetics And Informatics (Sci'98)
Orlando, Florida
July, 12-16, 1998

- Conceptual Infrastructure of Systemics, Cybernetics and Informatics
- Information Systems
- Control Systems

- Managerial/Corporate Systems
- Human Resources Systems
- Natural Resources Systems
- Social Systems
- Educational Systems
- Financial Systems
- SCI in Psychology, Cognition and Spirituality
- SCI in Biology and Medicine
- SCI in Art
- Globalization, Development and Emerging Economies

Submissions may be:
- Research, Review or Position Papers,
- Panel Presentation, Workshop and/or Round Table Proposals
- New Topics Proposal
- Focus Symposia
- Tutorial Proposal.

SCI'98 papers will be published by means of paper and electronic proceedings. Selected papers will be published by the International Institute of Informatics and Systemics, and included in the CD-ROM Extended Encyclopedia of Systemics, Informatics and Cybernetics (TM), whose development is presently in progress.
Conference fee: $300 - $350

Dates:
Jan. 12, 1998   Submission of draft paper
March 9, 1998   Acceptance notifications
April 20, 1998   Final camera/ready papers

Intern'l Symposium on ENGINEERING OF INTELLIGENT SYSTEMS
EIS'98
February 11 - 13, 1998
University of La Laguna
Tenerife, Spain

In recent years, the applications of Artificial Intelligence have been multiplied thanks to the development of new fields, such as Neural Networks, Fuzzy Logic and Genetic Algorithms. The possibility to accurately model complex problems using these new tools allows to approach new applications in artificial intelligence, in control theory, robotics, signal processing and even in business financial planning management, damage assessment, security, etc.
The main aim of this conference is to bring together theorists from different fields of artificial

intelligence and people working in applicative areas, in order to state the current state of the research and applications of Intelligent Systems. Contributions are sought in the following areas:

Theory:
- Expert Systems
- Neural Networks
- Fuzzy Logic
- Genetics Algorithms
- Machine Learning
- Hybrid Systems
- Chaos Theory

Applications:
- Control
- Industrial Diagnostics
- Robotics
- Signal Processing
- Estimation
- Modeling
- Pattern Recognition
- Speech Processing and Recognition
- Computer Vision
- Simulation
- Multivariate Images Analysis
- Remote Sensing
- Business
- Financial Planning
- Management
- Damage Assessment
- Security
- Physics
- Environment
- Hardware Implementations

7th Int'l Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems

(IPMU)

July 6 – 10, 1998
Paris- France

The aim of this Conference is to bring together researcher working on various methodologies for the management of uncertain information. It is hoped that this conference will lead to useful exchanges between theoreticians and practitioners using these different methods.

Topics:

Bayesian and Probabilistic Methods, Fuzzy Methods, Theory of Evidence, Belief Networks, Possibility Theory, Chaos Theory, Measures of Information and Uncertainty, Rough Sets.

Non-standard Logic, Non-monotonic Reasoning, Multi-valued Logic, Temporal Reasoning, Belief Updating.

Knowledge Acquisition and Representation, Machine Learning, Inductive Methods, Neural Networks, Databases, Information, Retrieval, Data Mining, Uncertainty in Cognition.

Intelligent Systems, Fuzzy Control, Genetic Algorithms and Evolutionary Computation, Hybrid Systems, Uncertainty in Expert Systems, Decision Support Systems, Multicriteria and Group Decision Making, Pattern Recognition, Clustering, Classification, Data Analysis, Image Processing, Multi-media Management, Financial Engineering, Intelligent Agents, Diagnostic Systems.

13th Int. Conference on Systems Science

September 15 – 18, 1998
Wroclaw University of Technology
Institute of Control and Systems Engineering
Wroclaw, Poland

Topics:
- General systems and control theory
- System identification, modeling and simulation
- System optimization
- Large scale control systems
- Flexible manufacturing systems
- Distributed computer systems and computer networks
- Knowledge-based and intelligent systems
- Decision support systems and expert systems
- Applications of systems analysis to technical, management, communication, transport and biomedical systems

Participants will receive a bound copy of the Conference proceedings

Cybernetics and Ecology

November 7 – 10, 1998
Dragan European Foundation
Carrer de Porto Pi 2
Palma de Mallorca, Spain

Main topics of this Congress:
- General Theory of Living Systems (Biocybernetics, Psycho-cybernetics, Socio-cybernetics, Anthropo-cybernetics, Geronto-cybernetics, Pharmachocybernetics, Medical Cybernetics, genetic Engineeing)
- Implications of the Ecological Topics on Life and Society (Education, Science, Culture, Civilization, Individual National and international Security)
- Approaches to the Interdependencies between Cybernetics and Ecology
- EABS Session: Evolutionary Epistemology and Bioeconomics

CREATING PERSONALITIES FOR SYNTHETIC ACTORS
Robert Trappl, Paolo Petta (eds.)

Progress in computer animation has gained so much in a speed that, before long, computer generated human faces and figures on screen will be indistinguishable from those of real humans. The potential both for scripted films and real-time interaction with users is enormous. However, in order to cope with this potential, these faces and figures must be guided by autonomous personality agents.

This carefully arranged volume presents the state of the art in research and development in making synthetic actors more autonomous. The papers describe the different approaches and solutions developed by computer animation specialists, computer scientists, experts in AI, psychologists and philosophers, from leading laboratories world-wide. A bibliography of more that 200 entries, mostly annotated, and URLs to relevant institutions, enable further study.

Contents:

P. Petta, R. Trappl: Why to Create personalities for Synthetic Actors?

N. Magnenat, Thalmann, P. Volino: Dressing Virtual Humans

D. Thalmann, H. Noser, Z. Huang: Autonomous Virtual Actors Based on Virtual Sensors

N.I. Badler, B.D. Reich, B. L. Webber: Towards Personalities for Animated Agents with Reactive and planning Behaviors

N. Goldberg, IMPROV: A System for Real-Time Animation of Behavior-Based Synthetic Actors

B. Blumberg, T. Galyean: Multi-level Control for Animated Autonomous Agents: Dothe Right Thing... Oh. Not That...

D. Blair, T. Meyer: Tools for an Interactive Virtual Cinema

B. Hayes-Roth, R. van Gent, D. Huber: Acting in Character

A.B. Loyall: Some Requirements and Approaches for Natural Language in a Believable Agent

D. Moffat: Personality Parameters and Programs

A. Sloman: What Sort of Control Systems Is able to have a Personality?

P. Petta, R. Trappl: Personalities for Synthetic Actors: Current Issues and Some Perspectives

Springer-Verlag 1997, ISBN: 3-540-62735-9
260 Pages, DM 66.00, US$ 49.00

INTRODUCTION TO SYSTEMICS
Gianfranco Minati, Arne Collen

This is intended to be an easy-to-read book, timely at the end of the century. Systemics - developing across many fields of study and disciplines, and applied in many businesses, occupations, and professions - has broad interest as a theoretical framework, an educational approach, a perspective for decision making, and a methodology to consider the more complex problems of our times. This paperback edition provides an introduction for those new to systemics as well as a refreshing provocative view of the subject for those already familiar. The book conveys clearly the notion that systemics has proliferated into not only a scientific movement, but also a cultural one.

Contents:
- 1. Systemics and Systems Theory
- 2. From Sets to Systems
- 3. Practical Applications
- 4. Objectivism and Non. objectivism
- 5. Openness and Closedness
- 6. Disciplinarity
- 7. Deduction, Induction, and Abduction
- 8. Ethics and Systemics
- 9. A Teaching Scheme
- 10. Further Applications
- Appendix: Systems Emergent in World Activities

Eagleye Books International
PO-Box 4550, Walnut Creek, CA 94596
Fax: 1 510 930 9779,
ISBN 0-924025-06-9, 95 Pages, US$10.-

Neural Networks and a New Artificial Intelligence
Georg Dorffner (ed.)

Since the re-birth of interest in artificial neural networks in the mid 1980s, they have become a much-discussed topic, particularly in terms of their real contribution to the explanation and modeling of cognition, as part of the field of artificial intelligence (AI). This collection brings together a selection of papers from experts in their field, outlining the concrete contribution that neural computing has made to AI.

This book is a collection of arguments, examples and critical elaborations from different views on how and whether neural networks can not only contribute to a better artificial intelligence, but can also revolutionize it by forming the basis for a truly alternative paradigm.

International Thomson Computer Press, London, 1997, ISBN 1-85032-172-8

INTERNET NEWS

Alan McCluskey (alan@connected.org) keeps a close watch on interesting web pages. Here are some of his findings (see also http://www.connected.org)

Puzzled by conflicting reports about the new domain name registration system? The stakes are not only financial, they are also highly political. The whole future of Internet self governance is being played out. Find out more about the subject by reading our interview of David Maher, interim president of POC, the governing body of the new system: http://www.connected.org/govern/core.html Read also the earlier interview with Don Heath, President and CEO of the Internet Society, about Internet self governance: http://www.connected.org/govern/I-gov.html

At the recent Festival de la Vallée des Terres Blanches organized by the CICV in six French villages at the foot of the Jura Mountains, much importance was given to the role of the citizen both in the form of the event and in the discussions during the accompanying seminar. Is there any point in talking about citizens in a predominantly individualist society? Haven't materialist values dealt a fatal blow to solidarity and participation? Who or what exactly is a citizen? What role can such a citizen play in society? What role do words play for the citizen? ...

If you are interested, you might like to read: "The voice of the "citizen" ..." http://www.connected.org/is/citoyen.html

As Internet use becomes more and more wide-spread it is inevitable that interest and concern will shift from the technology per se to its use. Women's groups world-wide are playing a key role in this paradigm change. Read the articles in the newly created "Women and the Internet" section of "connected" by Erica Smith, Sally Burch and Sylvia Cadena, all active in women's groups in Latin America: http://www.connected.org/women/women.html

When the nature and structure of the Internet challenge both national and international based decision-making structures, key lessons can be learnt from new approaches to Internet governance. Read an interview of Don Heath, CEO and President of the Internet Society, about Internet Self-governance http://www.connected.org/govern/I-gov.html

Following on from the series of short articles about key policy issues effecting the development of the Internet in developing countries, read Mike Jenkins' far-reaching and highly practical two-part analysis of the situation in Africa. http://www.connected.org/develop/constraints.html http://www.connected.org/develop/needs.html

The dramatic growth of hosts in the Internet , (Source: Comm. ACM, Feb. 1996, p. 24)

Region	Jan 94	July 94	Oct. 94	Jan 95	July 95
North America	1 685	2 177	2 686	3 373	4 516
Western Europe	113	142	154	192	252
Asia	20	28	33	46	68
Africa	10	16	21	27	42

WHAT IS SYSTEM(S) ENGINEERING?

In the last Newsletter I reported on the request of The European Software Institute in Bilbao, Spain, about what constitutes Systems Engineering. In order to stimulate discussion I included some definitions I found in the literature. Perhaps you would like to comment?

The essence of systems engineering lies within recognizing and understanding constituent specialties - for example, structures, electronics, power and fuel, and crew - and allowing these to

function only within the context of integrating these efforts in a whole.

The systems engineer must be able to stimulate, direct, and utilize much work that is not 'systems engineering', but only specialty or constituent engineering.
Open Systems Group (ed.): Systems Behaviour 3rd edition, Paul Chapman Publ. 1981, p. 110

News
from
the
IFSR

News
from
the
IFSR

Dear Members!

It is time to look at the future of the IFSR. In 1998 we will again hold the Board Meeting of the IFSR and a Strategy Meeting in Vienna. Many good ideas and suggestions have been put forward in 1996 and I hope you are preparing even more input for the 1998-Meeting. Send me discussion points for our next meeting. I will publish them in the Newsletter in order to increase discussion.

Hoping to keep up a fruitful communication,
yours sincerely

Gerhard Chroust

Prof. M. Jackson representing IFSR at the EMCSR-96

BOARD MEETING OF THE IFSR

(for representatives of IFSR member societies)
INVITATION and AGENDA

WEDNESDAY, APRIL 15, 1998, 17.00 – 19.30
Wienerwald-SCHOTTENKELLER
Freyung 6, Vienna
(10 minutes from the Vienna Unversity)

1. Opening
2. Minutes of the Board Meeting April 1996
3. Report of the President
4. Report of the Secretary/Treasurer
   a. Membership Status
   b. Financial Status and Outlook
5. Report on the Strategy Meeting April 1996
6. Report on the Fuschl 1996 and 1998
7. IFSR-Publications
   a. Status of „IFSR-Newsletter"
   b. Status of „Systems Research"
   c. IFSR brochure
   d. IFSR Book Series
8. IFSR supported events
   a. Ashby lectures
   b. EMCSR'98 (Robert Trappl)
   c. CAST-Meetings
   d. IDIMT 1998
   e. Other events
9. Membership-related decisions
   a. New members
   b. Inactive members
10. Election of Officers (President, Vice-President, Secretary/Treasurer)
11. IFSR Committees
12. IFSR Projects
13. Agenda for Strategy Meeting (April 18, 1998)
14. Other Business
15. Closing

STRATEGY MEETING OF THE IFSR

(for representatives of IFSR member societies)
INVITATION and AGENDA

SATURDAY, APRIL 18, 1998, 9.30-12.30
Wienerwald-SCHOTTENKELLER
Freyung 6, Vienna

In 1996 we IFSR held a strategy meeting, which identified numerous ideas and initiatives for the improvement of the IFSR. We therefore plan another strategy meeting for 1998. The idea is to consider the general direction IFSR is going, problems within IFSR, new directions, new initiatives. In the next Newsletter you will find a summary of the issues identified in 1996, some note of what has been achieved so far and further issues to be analyzed

To this meeting all representatives of our member associations and all member of the various Committees are invited (you will receive a special invitation, too). Please think of issues/problems etc.

1. Opening
2. Summary of the Strategy Meeting 1996
3. Committees of the IFSR
4. Future Activities and projects of the IFSR
   a) Brainstorming
   b) Discussion and Resolutions
5. Closing

Calendar of Events

Title	Date and Place	Further Information
Abbreviations: CfP, CfA: Call f.Papers/Abstract, FP: Final Paper due, <No. nn>: more details in is sue.nn		
Engineering Of Intelligent Systems: EIS'98	Feb. 11-13, 1998 Tenerife, Spain CfA: expired	ICSC Canada, P.O. Box 279, Millet, Alberta T0C 1Z0, Canada Email: icsc@compusmart.ab.ca, Fax: +1-403-387-4329 http://www.compusmart.ab.ca/icsc/eis98.htm
14th European Meeting on Cybernetics and Systems Research <No 16/2>	April 14-17, 1998, Vienna, Austria CfP: Oct. 17, 1997	Austrian Soc. for Cybernetic Studies, -Schotteng. 3, A-1010 Vienna, Austria, tel: +43-1-53532810, fax +43-1-5320652, email: sec@ai.univie.ac.at http://www.ai.univie.ac.at/emcsr/
First national Conference on systems science <No 16/3>	June 24-26, 1998, Milano, I CfP: Dec. 31,1997	Universita' degli Studi Di Milano Dipartimento di Scienze della Informazione (AIRS), att. Prof.Mauri , Via Comelico,39 20135 – Milano, bandini@dsi.unimi.it, fax: +39 (0)2-55006.276 ; tel: +39(0)2-55006.269
7th International Conference in Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU 98) <Nr. 16/3>	July 6 - 10, 1988 Paris (France)	IPMPU '98, LIP6, UPMC, Case 169, 4 place Jussieu, 75252 PARIS Cedex 05, France, Fax: +33 - 1- 45 75 08 90 e-mail: ipmu laforia.ibp.fr http://www-laforia.ibp.fr/~baslofti/ipmu.html
WORLD MULTICONFERENCE ON SYSTEMICS, CYBERNETICS AND INFORMATICS: SCI'98	July, 12-16, 1998 Orlando, Florida CfP: Jan. 12, 1998	The International Institute of Informatics and Systemics. Prof.Nagib Callaos, IIIS6220 S. Orange Blossom Trail, Suite 173 Orlando, FL 32809, USA, Fax: +1 (407) 856-6274, e-mail: SCI98@aol.com http://www.iiis.org
EUROMICRO'98: Engeinering Systems and Software for the next decade	Aug. 25-27, 1998, Västeras, S CfP: Feb. 28, 1998 FP: June 15, 1998	F. Tirado, Dept,. de Informatica y Automatica, Universidad Complutense, 28040 Madrid, Spain Tel.: +34-1-3944378, fax: +34-1-3944687, email: ptirado@dia.ucm.es
IFIP'98: 15th IFIP World Computer Congress: 'The global Information Society' <No. 16/2>	Aug. 31- Sept 4, 1998 Vienna/Budapest CfP: Jan. 16,1998	Austrian Computer Society, Wollzeile 1-3, A-1010 Vienna, tel: +43 1 512 02 35-0, fax: -9 email: ifip98@ocg.or.at John v. Neumann Computer Soc., Bahtori u. 16, H-1054 Budapest, tel: +36 1 13 293 49, fax: +36 1 13181 40, ifip98@neumann.hu, http://www.ocg.or.at/ifip98/
<No. 16/3> ICSS1	Sept. 15-18, 1998 Wroclaw, PL CfA: Jan. 31, 1998 FP: May 31, 1998:	Prof. Adam Grzech, Wroclaw University of Technology, Institute Of Control And Systems Engineering, Wybrzeze Wyspianskiego 27, 50-370 Wroclaw, Poland, tel: +48-71-320-33-28, fax +48-71-320-3884, email:icss@ists.pwr.sroc.pl, www: http://www.ists.pwr.wroc.pl/13icsss/
IDIMT'98, 6th Interdisciplinary Information Management Talks	Oct. 21-23, 1998 Zadov, Czech Republic CfP: April 1998 FP: July 1998	Gerhard Chroust, Systemtechnik, Kepler Universität Linz, 4040 Linz, tel: +43-732-2468-866, fax -878 email:Chroust@SEA.uni-linz.ac.at
<No. 16/3>	Nov. 7-10, 1998 Palma de Mallorca, E CfP Jan. 1, 1998	Cybernetics Academy „Stefan Odobleja" - Dragan European Foundation, 153 Calea Rahovei, sector 5, Bucharest, Romania Tel.: (401) 335 37 19, fax: (401(336 07 79 e-mail: ioana hoisescu connex ro

"A system is more than the sum of its parts"
"A system is in the eye of the beholder"