NJ SZT John von Neumann
Society for Computing Sciences (NJSZT)

Austrian Computer Society (OCG)

in cooperation with the
Slovak Cybernetic Society (SKS/SAV)

CIS '91
Conference on Intelligent Systems

Fundamentals and European Cooperation
in Research and Education of Intelligent Systems

CALL FOR PARTICIPATION

PRELIMINARY PROGRAM

Veszprém, Hungary
September 25—27, 1991

The John von Neumann Society for Computing Sciences and the Austrian Computer Society have the pleasure to invite you to participate at their 6th Austrian—Hungarian Informatics Conference.

CIS '91.

OBJECTIVES

The aim of these Conferences, organized year by year is to discuss the state-of-the-art and the trends of "hot topics" in informatics. The main subject of this year's conference will be **intelligent systems.** Beyond the presentation of technical papers there will be a special session with introductory tutorials, followed by a panel discussion, on the possibilities, schemes and early results of **European cooperation in research and education.**

TOPICS

CAE/CBE (Computer-Assisted/Based Education)
Database models/User interfaces
Hypermedia
Image processing
Natural language analysis
Pattern (texts, drawings, documents) recognition
Neural networks
International cooperation in research and education

PROGRAM COMMITTEE (PC)

Hungarian members:	T. Vámos, M. Havass, D. Sima, L. Pomázi, P. Hanák
Austrian members:	G. Haring, V. Haase, R. Trappl, H. Maurer
Slovak members:	B. Frankovič, F. Soviš

ORGANIZING COMMITTEE (OC)

Hungarian members:	P. Hanák, L. Pomázi, D. Sima, B. Tomor, M. Tóth
Austrian members:	W. Grafendorfer, H. Brückler

PRELIMINARY PROGRAM

OPENING

Opening addresses
8.30—9.00 Sept. 25, Wednesday

J. Liszi, Rector, University of Veszprém
G. Haring, President, OCG
M. Havass, President, NJSZT

SESSIONS

Session I: Image Processing
9.00—10.40 Sept. 25, Wednesday
Chairman: W. Kropatsch

I1   I. Erényi: **Machine Vision System for Industrial Quality Control**
I2   Gy. Cs. Hegedűs: **An Efficient Image Compression Program for Personal Computers**
I3   E. Katona, T. Legendi, P. Köles, K. Palágyi: **Cellprocessor for Image Processing**
I4   G. Soral: **Hometrainer and Computer Technology**

Session P: Pattern Recognition
10.50—12.55 Sept. 25, Wednesday
Chairman: B. Dömölki

P1   I. Marosi, E. Kovács: **Tendencies, Applications, Devices in Optical Character Recognition**
P2   L. Csink: **A Technical Document Recognition Algorithm**
P3   B. Takács: **A Hybrid Character Recognition Algorithm**
P4   G. Álló, L. Feró, J. Langer: **Very High Precision Digit Recognition**
P5   K. Andrews: **Bounding Box and Hit Detection Algorithms for 2D-Graphic Objects**

Session N: Neural Networks
14.00—15.40 Sept. 25, Wednesday
Chairman: G. Haring

N1   T. Roska: **CNN: A State-of-the-Art Review and Video Demonstration**
N2   Gy. Strausz — A. Lőrincz: **Integration of AI and the Neural Network Concept**
N3   Rácz, J., Klotz, T.: **Learning in Neural Networks**
N4   T. Geszti: **Habituation in Artificial Feed-Forward Networks**

16.00—17.15 Sept. 25, Wednesday

Chairman: T. Roska

N5   N. Tóth, T. Legendi, I. Miczori: **Neuroprocessing on Cellprocessors**

N6   E. Lábos: **Operations, Transformations and Codes in Abstract Nervous Systems**

N7   Ferrara, P., Ferscha, A., Haring, G.: **A Collision Avoiding Six Legged Walking Machine based on Kohenen Feature Maps**

Session E: CAE/CBE (Computer-Assisted/Based Education)

8.30—10.10 Sept. 26, Thursday

Chairman: D. Sima

E1   R. M. Aiken: **Artificial Intelligence & Education — Past, Present and Future**

E2   Zs. Lukács Sréter, A. György: **TEACHSOFT, an Educational Programme Package for Math**

E3   T. Bakos: **Okker, a Real Hungarian CBE System**

E4   B. Csukás, Gy. Márton: **Towards Computer-Assisted Education of Computer-Aided Chemical Engineering**

Session D: Database Models/User Interfaces

10.30—12.35 Sept. 26, Thursday

Chairman: V. Haase

D1   P. Ecsedi-Tóth: **FAIR*ORA: An Object-Oriented Extension of the Relational Database Model**

D2   R. Keil: **The Property Oriented Model: A Set Theoretic Approach**

D3   B. Molnár, J. Frigó: **The Role of the Intelligent Data Dictionary in the Process of Information Systems Development**

D4   H. Brückler: **The Use of the Relational Database Model for Machine Assistant Retrieving of Geometrical Data**

D5   P. F. Meyer: **An Intelligent User Interface for Office Automation**

D6   B. Frankovič, P. Tamási: **Modelling and Simulation of Discret Systems Modules**

Session C: International Cooperation
14.00—15.40 Sept. 26, Thursday
Chairman: T. Vámos

Invited Speakers

C1	G. M. Metakides: **The ESPRIT Programme**
C2	G. Kirkpatrick: **European Cooperation in the Perspective of BCS and CEPIS**
C3	R. Kneucker: **Research Cooperation in Europe**

Session R: Round Table Discussion
16.00—18.00 Sept. 26, Thursday
Chairman: N. Rozsenich
Introduction by S. Bottka, V. Haase, T. Vámos

Session L: Natural Language Analysis
8.30—9.45 Sept. 27, Friday
Chairman: I. Bach

L1	E. Farkas, C. H. A. Koster, P. Köves, M. Naszódi: **Towards an Affix Grammar for the Hungarian Language**
L2	Abo Alez, R. H.: **An Approach to Disambiguate the Meaning of the Noun Phrase in the Arabic Sentences**
L3	Abo Alez, R. H., M. Naszódi: **Morphological Analysis for Inflacted Languages**

Session H: Hypermedia
10.00—11.15 Sept. 27, Friday
Chairman: H. Maurer

H1	F. Kappe, H. Maurer: **Hyper-G — Specifications of Requirements**
H2	G. Pani, L. Reinsperger: **Guidelines for User Interface Design of Hyper-Media Systems**
H3	L. Reinsperger, P. Sammer: **Hypermedia Basis System**

11.30—12.45 Sept. 27, Friday
Chairman: W. Rauch

H4	R. Stubenrauch: **Tours vs. Collections — Two Ways of Accessing Hypermedia**
H5	A. Köfer, H. Mülner: **Interactive Electronic Maps with Pictures**
H6	E. Bertha, W. Rauch, E. J. Schwarz: **Hypertext Informationsystems — Results of a Practical Experiment**

VENUE	**University of Veszprém**

Veszprém
Egyetem utca 12, Building "E"

LANGUAGE

The working language is English.

REGISTRATION

To participate at the conference please fill in and mail to the Conference Secretariat the enclosed Registration Form by

June 30, 1991.

Your registration will be confirmed in due time.

ACCOMMODATION

Hotel rooms for participants will be provided in Veszprém and by request on the coast of the lake Balaton in Balatonalmádi (13 km away from Veszprém). This kind of accommodation is proposed for participants coming by car.

The hotel prices (see Registration Form) include breakfast. You are kindly requested to transfer one-night price as hotel deposit.

ACCOMPANYING PERSONS

are welcome and may attend the concert, the welcome party, the conference dinner, the farewell program and the lunches on the conference days at a fee of 950 ATS.

SOCIAL PROGRAMMES
(INCLUDED IN THE REGISTRATION FEE)

Welcome party September 24, Tuesday

Walking tour in Tihany, concert September 25, Wednesday

Visit to the beautiful peninsula (some snacks). An organ concert will be held in the church of Felsőörs.

Conference dinner September 26, Thursday

A boat-trip on the lake combined with a dinner.

Farewell programme September 27, Friday

Walking sightseeing tour in the down-town of Veszprém, the episcopal city, folklore programme and dinner in a typical Hungarian inn in the Bakony mountain.

OPTIONAL POST-CONFERENCE TOUR   September 28, Thursday

A whole day guided tour by coach. **Zirc:** baroque church, and library, arboretum, **Nagyvázsony:** Kinizsi castle from the XV. century, horse-show (riding on horseback is possible), lunch, **Keszthely:** Festetich castle, sightseeing, dinner, transfer to Veszprém or Balatonalmádi.

Price 580 ATS

PAYMENT

Participants are kindly requested to transfer the fees to the

MHB-323-10133 CIS '91 (Hungarian participants)

Zentralsparkasse Wien No. 405075326 CIS '91 (Austrian participants)

or to send a cheque made payable to the John von Neumann Society. On the spot we can accept cheque and cash only!

CANCELLATION

80% of the registration fee and 50% of the hotel deposit will be refunded if the cancellation is received before September 1. In case of later cancellation 50% of registration fee and no deposit can be refunded, the proceedings will however be mailed.

INQUIRES

to obtain any information, please contact the

CONFERENCE SECRETARIAT

John von Neumann Society for Computing Sciences

Budapest,
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CIS '91 AT A GLANCE TIMETABLE

Time	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
8.30		OPENING	CAE/CBE	NATURAL LANGUAGE ANALYSIS	8.30
9.00		IMAGE PROCESSING	E1—E4	L1—L3	
		I1—I4	COFFEE BREAK		9.45
10.40				COFFEE BREAK	10.00
		COFFEE BREAK	DATABASE MODELS /	HYPERMEDIA	
10.50				H1—H3	
		PATTERN RECOGNITION	USER INTERFACES		11.15
				COFFEE BREAK	
		P1—P5	D1—D6		11.30
12.35				HYPERMEDIA	
12.55				H4—H6	
					12.45
		LUNCH	LUNCH	LUNCH	
14.00					
		NEURAL NETWORKS	INTERNATIONAL COOPERATION		14.30
		N1—N4	C1—C3	SIGHTSEEING	
15.40		COFFEE BREAK	COFFEE BREAK		
16.00		NEURAL NETWORKS	ROUND TABLE		
	REGISTRATION	N5—N7	DISCUSSION		
17.15			R		
					18.00
19.00				DINNER IN A TYPICAL HUNGARIAN INN	
20.00	WELCOME RECEPTION	TIHANY, CONCERT IN FELSÖÖRS	BOAT TRIP, CONFERENCE DINNER		