IJCNN 2004 & FUZZ-IEEE 2004

SHEDULE AT-A-GLANCE

Sunday, 25 July, 2004

09.00 - 11.00 Tutorials

IJCNN	**Room B**	Neural Networks That Actually Work In Prediction and Decision/Control: Common Misconceptions Versus Real-World Success *Paul J. Werbos*
FUZZ-IEEE	**Room E**	Data Mining, Modeling and Knowledge Discovery in Bioinformatics *Nik Kasabov*

11.15 – 13.15 Tutorials

IJCNN	**Room B**	Kalman Filter Training of Neural Networks: Methodology and Applications *Danil Prokhorov*
FUZZ-IEEE	**Room E**	Introduction to Clustering Techniques *Katsuhiro Honda, Francesco Masulli, Stefano Rovetta*

14.30 – 16.30 Tutorials

IJCNN	**Room B**	Neural Control Systems *Bernard Widrow*
	D	Autonomous Mental Development: A New Frontier for Computational Intelligence *Juyang Weng*
FUZZ-IEEE	**Room E**	Fuzzy Sets for Words: Why Type-2 Fuzzy Sets Should be Used and How They Can be Used *Jerry Mendel*

16.45 – 18.45 Tutorials

IJCNN	**Room B**	Feature extraction in Computational Intelligence *Evangelia Micheli-Tzanakou*
	D	Cellular Visual Microprocessors: Theory, Implementation and Applications *Csaba Rekeczky and Ákos Zarándy*

18.00 – 19.00 Public Lecture

IJCNN	**Room C**	Clinical Results with the Model 1 IRP implant *Mark Humayun, D. Yanai, R.J. Greenberg, J. Little, B.V. Mech, M. Mahadevappa, J.D. Weiland, G.Y. Fujii, E. deJuan, Jr.*

19.00 – 21.00

IJCNN & FUZZ-IEEE	**Room A**	**Welcome Reception and Joint IEEE-INNS Awards Ceremony**

Monday, 26 July, 2004

09.00 – 09.20 Opening Session, Welcome Addresses

IJCNN & FUZZ-IEEE	**Room A**	Evangelia Micheli-Tzanakou, Opening Session Chair
		Jacek M. Zurada, President, IEEE Computational Intelligence Society
		Tamás Roska, General Chair, IJCNN 2004
		László Kóczy, General Chair, FUZZ-IEEE 2004

09.20 – 11.00 Key-note Talks I.

IJCNN & FUZZ-IEEE	**Room A**	09.20	Precisiated Natural Language (PNL)—Toward an Enlargement of the Role of Natural Languages in Scientific Theories *Lotfi A. Zadeh*
		10.10	The CNN: a Brain-like Computer *Leon O. Chua*

11.20 – 13.00 Key-note Talks II.

IJCNN & FUZZ-IEEE	**Room A**	11.20	Patterns, Clusters, and Components - What Data is Made of *Erkki Oja*
		12.10	Ubiquitous Computing Challenges in Recognizing and Predicting Human Activity *Kenneth Fishkin*

14.30 – 16.30 Parallel Sessions

IJCNN	**Room A**	Self Organizing Maps
	B	Blind Source Separation (Special Session)
	G	Chaos, Bifurcations and Neural Networks
	C	Information Based Learning
	F	Sensor Array Processing and Cellular Neural Networks
FUZZ-IEEE	**Room H**	Applications (Invited). 1. Toward Intelligent Human Robot Interface 2. Control
	I	Learning from Data (Invited Track) 1. Inductive Learning
	D	Innovative Trends in Mathematical Models of Imprecision (Invited)
	E	Clustering and Image Processing 1

17.00 – 19.00 Parallel Sessions

IJCNN	**Room A**	Recurrent Neural Networks
	I	Evolutionary Computing and Neural Networks
	B	Appl. of Blind Source Separation and Independent Comp Anal (ENNS Special Session)
	G	Datamining
	C	Vision and Image Processing
FUZZ-IEEE	**Room F**	Applications (Invited Track). 3. Information Technology
	H	Models in Learning from Data (Invited Track) 2. Rule-based systems
	D	Imprecision Modeling with Non-Standard Logics (Invited). Fuzzy Algebra
	E	Interaction and Intelligence 1. (Invited)

20.00-22.20 Special Session

IJCNN	**Room C**	Comput. Brain Science & Neuroinformatics in Asian Pacific Countries (Special Session)

Tuesday, 27 July, 2004

08.30-09.50 Plenary Sessions

IJCNN	**Room A**	08.30-09.10	Challenges and Opportunities for Analog Neural Processing in the Deep SubMicron SoC Era *Angel Rodriguez Vazquez*
		09.10-09.50	Nanoelectronic Neuromorphic Networks (CrossNets): New Results *Konstantin Likharev*
FUZZ-IEEE	**Room C**	09.00-09.50	Structured Learning for Partner Robots *Naoyuki Kubota*

10.10-12.10 Parallel Sessions

IJCNN	**Room A**	Support Vector Machines and Kernel Methods I.
	I	Face Detection and Recognition
	B	Retinal Prosthesis Symposium Part 1
	G	Spiking Neuron Networks
	F	Modeling Attention & Emotion in Humans & Agents (ENNS Special Session)
FUZZ-IEEE	**Room H**	Applications (Invited Track). 4. Finances, Vision, Biomedical
	C	Learning from Data (Invited Track) 3. Learning from Clustering
	E	Soft Computing in Cyber Security (Invited). Applications
	D	Interaction and Intelligence 2. (Invited)

14.00-16.00 Parallel Sessions

IJCNN	**Room A**	Least Squares Support Vector Machines (Special Session)
	B	Retinal Prosthesis Symposium Part 2
	C	Cognitive Information Processing
	F	Comput. Theories of Hippocampus Behavior and Intellig. (Special Session)
	H	Pattern Recognition Applications
FUZZ-IEEE	**Room E**	Soft Computing in Fault Diagnosis and Prognosis (Invited)
	G	Learning from Data (Invited Track) 4. Industrial Applications
	D	Fuzzy Mathematics (Invited)
	I	Fuzzy Information Retrieval

16.00-19.00

IJCNN	**Room P**	**Plenary Poster Sessions**

16.30-17.30 Panel Sessions

IJCNN	**Room B**	Retina Prosthesis Symposium part 3
FUZZ-IEEE	**Room C**	Soft Computing as a Tool

17.30-19.00

FUZZ-IEEE	**Room P**	**Plenary Poster Sessions**

20.00-22.20 Special Session

IJCNN	**Room C**	Time Series Prediction Competition (Special Session)

Wednesday, 28 July, 2004

08.30-09.50 Plenary Sessions

IJCNN	**Room A**	08.30-09.10	Implantable Biomimetic Microelectronics for the Replacement of Hippocampal Memory Function Lost Due to Damage or Disease *Theodore Berger*
		09.10-09.50	Reinforcement Learning in the Real World *Andrew Barto*
FUZZ-IEEE	**Room C**	09.00-09.50	Progressive Sampling Schemes for Approximate Clustering in Very Large Data Sets *James Bezdek and Richard Hathaway*

10.10-12.10 Parallel Sessions

IJCNN	**Room A**	Bioinformatics
	I	Neuromorphic Chips and Hardware
	B	Invited Session
	G	Signal and Image Processing for Intelligent Vehicles
	C	Reinforcement Learning & Approximate Dynamic Progr.
FUZZ-IEEE	**Room E**	System Architectures and Hardware
	F	Applications of Type 2 Fuzzy Logic 1 (Invited)
	H	Fuzzy Optimization and Design
	D	Fuzzy-Neuro-Evolutionary Hybrids

14.00-16.00 Parallel Sessions

IJCNN	**Room A**	Neural Network Control
	B	Applications in Diagnostics and Quality Control
	G	N N & Kernel Methods for Structured Domains (ENNS Special Session)
	C	Biomedical Applications
	F	Brain Inspired Emerging Nanoarchitectural Design and Techn. Challenges (Spec. Session)
FUZZ-IEEE	**Room E**	TP Model Transformation in Non-Linear Control (Invited)
	H	Applications of Type 2 Fuzzy Logic 2 (Invited)
	I	Computing with Words
	D	Real World Applications

16.00-19.00

IJCNN	**Room P**	**Plenary Poster Sessions**

16.30-17.30 Panel Sessions

FUZZ-IEEE	**Room C**	Internet, Information Retrieval and Soft Computing

17.30-19.00

FUZZ-IEEE	**Room P**	**Plenary Poster Sessions**

20.00-23.00 Conference Banquet

Thursday, 29 July, 2004

09.10-09.50 Plenary Sessions

IJCNN	**Room A**	09.10-09.50	Artificial Neural Networks, Where Do We Go Next? *Dan Hammerstrom*
FUZZ-IEEE	**Room C**	09.10-09.50	Taxonomy-based Soft Similarity Measures *James Keller, Mihail Popescu and Joyce Mitchell*

10.10-12.10 Parallel Sessions

IJCNN	**Room A**	Support Vector Machines and Kernel Methods II.
	B	Noise in N N & Hippoc. Function (ENNS Combined Special Session)
	G	Speech Recognition
	C	Computational Neuroscience
	F	Digital Impl. of Neural Networks (Special Session)
FUZZ-IEEE	**Room I**	Fuzzy Control and Robotics 1
	H	Advanced Algorithms in Fuzzy Clustering (Invited) + Information Systems
	E	Fuzzy Logic and Mathematics
	D	Philosophy of Soft Computing (Invited)

14.00-16.20 Parallel Sessions

IJCNN	**Room A**	Robotics and Learning
	I	Neurodynamics
	B	Bioinformatics and Biomedical Comp. (ENNS Special Session)
	G	Quantum Computing and Neural Networks
	C	Machine Learning for Text Mining (ENNS Special Session)
FUZZ-IEEE	**Room E**	Fuzzy Control and Robotics 2
	F	Fuzzy Modeling (Invited)
	H	Database Mining and Decision Making
	D	Clustering and Image Processing 2

16.30-17.00 Closing Plenary Session

FUZZ-IEEE	**Room C**	**K. Hirota**