



**International Conference on Fuzzy Systems, Neural Networks and Genetic Algorithms (FNG 2007)
Hispanic American Fuzzy Systems Association (HAFSA),
Tijuana Institute of Technology and Universidad Autónoma de Baja California
Tijuana, México, October 17-19, 2007**

FINAL PROGRAM

Wednesday, October 17, 2007

International Workshop on Computational Intelligence – IEEE CIS-
Mexico Chapter

2:00-2:30 PM Opening Ceremony

2:30-3:30 PM Invited Lecturer 1 IWCI

“Evolutionary Robotics”

Dr. Eduardo Gómez-Ramírez

Universidad La Salle, Cd. De México

3:30-4:50 PM Session 1IWCI'07

Modular Neural Networks for Human Recognition based on the Face and Parallel Segmentation
Rene Nuñez, Miguel López, Arnulfo Alanis

Optimization of Modular Neural Networks with Genetic Algorithms for Face and Voice
Recognition
José Manuel Villegas Izaguirre, Alejandra Mancilla, Patricia Melin

Biometric Recognition Techniques using Hand Geometry, Voice and Computer Vision with
Feature Extraction, Neural Networks and Fuzzy Logic
Pedro A. Salazar, Patricia Melin, Oscar Castillo

Identificación del Individuo por medio de su firma y voz empleando Redes Neuronales Modulares
Gabriela Sapien, Patricia Melin

4:50-5:30 Coffee Break

5:30 – 6:50 PM Session 2 IWCI'07

Modular Neural Network Optimization for Time Series Prediction using Genetic Algorithms
Paul Antonio Osuna Salazar, Patricia Melin, Antonio Rodriguez-Diaz

Stability of Type-1 and Type-2 Fuzzy Logic Controllers
José B. Morales, Oscar Castillo, José Soria

Comparison between Evolutionary Methods for Fuzzy System Optimization
Alma Cristina Martínez, Oscar Castillo, Oscar Montiel

Comparative Study of Type-1 and Type-2 Fuzzy Systems Optimized by Hierarchical Genetic
Algorithms
Alma Isabel Martínez, Oscar Castillo, Mario García

Método de control Inteligente para un Robot Autónomo Móvil con Lógica Difusa
Mirsa Inzunza Martinez, Arnulfo Alanis, Miguel Angel Lopez

Thursday, October 18, 2007

2:00 – 2:45 PM Invited Lecture 2 FNG07

**Esquema Neuronal para Detección y Diagnóstico de Fallas en
Centrales Termoeléctricas**

Dr. Jose A. Ruz Hernández

Universidad Autónoma de Ciudad del Carmen

2:45- 4:15 PM SESSION 1 FNG07

Intelligent Control for a Perturbed Autonomous Wheeled Mobile Robot using Type-2 Fuzzy Logic
and Genetic Algorithms
Ricardo Martínez, Oscar Castillo, Luis T. Aguilar

Type-1 and Type-2 Fuzzy Inference Systems as Integration Methods in Modular Neural Networks
for Multimodal Biometry and its Optimization with Genetic Algorithms
Denisse Hidalgo, Oscar Castillo, Patricia Melin

Comparative Study of Particle Swarm Optimization and Genetic Algorithms for Complex
Mathematical Functions
Fevrier Valdez, Patricia Melin

Response Integration in Ensemble Neural Networks using the Sugeno Integral and Fuzzy
Inference Systems for Pattern Recognition
Miguel Lopez, Patricia Melin

4:15-4:45 Coffee Break

4:45-5:30 Invited Lecture 3 FNG07

Interval Type-2 ANFIS

Gerardo Maximiliano Méndez

Instituto Tecnológico de Nuevo León

5:30- 6:45 PM SESSION 2 FNG07

A Dynamic Cognitive-Fuzzy Controller Model: Experiments on Self Fine-Tuning and Performance Optimization

José Luis Gonzalez, Luis T. Aguilar, Oscar Castillo

Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks

Juan R. Castro, Oscar Castillo, Patricia Melin, Antonio Rodriguez-Diaz

Fuzzy Control for Output Regulation of a Servomechanism with Backlash

Nohe R. Cázarez Castro, Luis T. Aguilar, Oscar Castillo, Selene L. Cárdenas

Fuzzy Logic Controller for Orbital Stability of a Biped Robot

Selene L. Cárdenas, Oscar Castillo, Luis T. Aguilar, Nohe R. Cázarez Castro

6:45-7:30 Invited Lecture 4 FNG07

Modelado y Predicción de la Razón de Cambio Peso-Dolar usando

IT2 Híbrido

Ma. De Los Angeles Hernández

Instituto Tecnológico de Nuevo León

Friday, October 19, 2007

2:00 – 3:00 Plenary Speaker FNG'07

The Viable Systems Model: where does the value lie?

Prof. Dr. Susan J. Jones

Sunderland University UK

3:00- 4:00 PM SESSION 3 FNG07

Social Systems Simulation Person Modeling as Systemic Constructivist Approach
Manuel Castañon-Puga, Antonio Rodriguez-Diaz, Guillermo Licea

Fuzzy Semantic Networks in Agent Based Interactions for Context Creation in Social Simulations
Dora Flores-Gutiérrez, Antonio Rodriguez-Diaz, Lynne Hall, Susan Jones, Manuel Castañon

Fuzzy Personality Model based on Transactional Analysis and VMS for Socially Intelligent Agents and Robots

Carelia Gaxiola-Pacheco, Antonio Rodriguez-Diaz, Susan Jones, Lynne Hall, Manuel Castañon

A Hybrid Model based on Cellular Automata and a Fuzzy Logic System to Simulate Population Dynamics

Cecilia Leal Ramírez, Oscar Castillo

4:00-4:30 Coffee Break

4:30 – 5:30 Plenary Speaker FNG'07

Distributed Agency

Prof. Dr. Eugenio D. Suárez

Trinity University USA

5:30- 6:30 PM SESSION 4 FNG07

Advantages of Fuzzy Logic for Modeling Uncertainty in Digital Image Processing
Olivia Mendoza, Patricia Melin, Guillermo Licea

Comparative Performance of Type-1 and Type-2 Fuzzy Models for Stepping Motor

Leocundo Aguilar, Oscar Castillo, Guillermo Licea

Desarrollo de Controladores Difusos en Tiempo Real en Matlab/Simulink mediante Comunicación Diente Azul

I. Millan, G. Lizarraga, O. Montiel, R. Sepúlveda

Identificación de un modelo paramétrico utilizando el HEM como método de ajuste de parámetros.

O. Soto, O. Montiel, R. Sepúlveda

6:30-7:00 Closing Ceremony

General Chair: Prof. Dr. Oscar Castillo, Tijuana Institute of Technology
Program Chair Prof. Dr. Patricia Melin, Tijuana Institute of Technology
Program Co-Chair: Dr. Antonio Rodríguez, Universidad Autónoma de Baja California
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