

## TECHNICAL PROGRAM IEEE CIMSA-2006

<http://www.ewh.ieee.org/soc/im/cimsa/cimsa2006/index.html>

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1. Wednesday, July 12, 3:00PM-3:30PM

Special Session: Opening Session, Chair: Fabio Scotti, Fernando Lopez Peña Enrique Ruspini,  
Room: CASTELAO

2. Wednesday, July 12, 3:30PM-4:30PM

Soft-computing Technologies for Medical and Bioengineering, Chair: Enrique Ruspini,  
Room: CASTELAO

3:30PM. *A Soft Computing-Based Measurement System for Medical Applications in Diagnosis of Cardiac Arrhythmias by ECG Signals Analysis*

Claudio De Capua, Stefano De Falco and Rosario Morello

3. Wednesday, July 12, 5:00PM-6:30PM

Soft-computing Technologies for Robotics and Vision, Chair: Abdulmotaleb El Saddik,  
Room: CASTELAO

5:00PM. *Morphological Neural Networks for Localization and Mapping*

Ivan Villaverde, Manuel Grana and Alicia d'Anjou

**5:30PM *Modeling Technology for One Class of Multi-Agent Systems with Automata Based Programming***

**Dmitry Paraschenko, Anatoly Shalyto and Fedor Tsarev**

6:00PM. *Multiple Waypoint Path Planning for Mobile Robot using Genetic Algorithms*

Trevor Davies and Amor Jnifene

4. Thursday, July 13, 9:30AM-11:00AM

Intelligent Measurement Systems, Chair: Rajiv Khosla, Room: CASTELAO

9:30AM. *A Computational Intelligence Application for Environmental Measurements by a DSP-Based Smart Web-Sensor*

Claudio De Capua, Antonino Battaglia, Annalisa Liccardo and Rosario Morello

10:00AM. *Hall Effect Sensor and Artificial Neural Networks Applied on Diagnosis of Broken Rotor Bars in Large Induction Motors*

Cleber Gustavo Dias, Ivan Eduardo Chabu and Marcos Alberto Bussab

10:30AM. *Computational intelligence techniques to detect toxic gas presence*

Cesare Alippi, Gerardo Pelosi and Manuel Roveri

5. Thursday, July 13, 11:30AM-1:00PM

Intelligent Sensor Fusion, Chair: Vincenzo di Lecce, Room: CASTELAO

11:30AM.. *Hybrid filtering for map-aided vehicle navigation*  
Christophe Boucher and Jean-Charles Noyer

12:00PM.. *Target Registration Correction Using the Neural Extended Kalman Filter*  
Kathleen Kramer, Stephen Stubberud and J. Antonio Geremia

12:30PM. *Measurement and Comparison of Non-verbal Behavior and Cognitive Behavior in Human Resource Management - Application in Sales Recruitment*  
Rajiv Khosla, Chris Lai and Debbie Chu

**6.** Thursday, July 13, 3:00PM-4:30PM

Intelligent Monitoring and Control Systems, Chair: Antonio Geremia, Room: CASTELAO

3:00PM. *Management of Complex Dynamic Systems based on Model-Predictive Multi-objective Optimization*

Raj Subbu, Piero Bonissone, Neil Eklund, Weizhong Yan and Naresh Iyer

3:30PM. *An Intelligent System for Decentralized Load Management*

Alberto Amato, Marco Calabrese, Vincenzo Di Lecce and Vincenzo Piuri

4.00 PM. *A Novel Ontology for Sensor Networks Data*

Mohamad Eid, Ramiro Liscano and Abdulmotaleb El Saddik

**7.** Thursday, July 13, 5:00PM-6:30PM

Neural and Fuzzy Implementations for Measurement Systems, Chair: Abraham Prieto, Room: CASTELAO

5:00PM.. *A Training Methodology for Neural Networks Noise-Filtering When no Training Sets are available for Supervised Learning.*

Milton Martinez Luaces

5.PM.. *NN-based software tool for helping wireless communications components design*

Georgina Stegmayer and Omar Chiotti

6:00PM.. *Particle Size Distribution from Combined Light Scattering Measurements. A Neural Network Approach for Solving the Inverse Problem.*

Georgina Stegmayer, Omar Chiotti, Luis Gugliotta and Jorge Vega

**8.** Friday, July 14, 9:30AM-11:00AM

Neural, Fuzzy and Genetic/Evolutionary Algorithms for System Optimization, Chair: Francisco J. Gonzalez-Castano, Room: CASTELAO

9:30AM.. *The Experience of Using a Neural Assistor to Enhance the Transient Characteristics of Well-defined Control Systems*

PenChen Chou, TsiChow Chang and TsiChun Hwang

9. Friday, July 14, 11:30AM-1:00PM

Neural and Fuzzy Technologies for Complex Systems, Chair: Fabio Scotti, Room: CASTELAO

11:30AM..*Support vector machine detection of peer-to-peer traffic*

Francisco J. Gonzalez-Castano, Pedro S. Rodriguez-Hernandez, Rafael Martinez Alvarez, Andres Gomez and Ignacio Lopez-Cabido

12:00PM. *Fuzzy Control of an Inverted Pendulum using AC Induction Motor Actuator*

Hosein Marzi

10. Friday, July 14, 3:00PM-4:30PM

Neural and Fuzzy Signal/Image Processing, Chair: Richard Duro, Room: CASTELAO

3:00PM. *Adaptive Spatio-Spectral Hyperspectral Image Processing for Online Industrial Classification of Inhomogeneous Materials*

Abraham Prieto, Francisco Bellas, Richard J. Duro and Fernando Lopez Pena

3:30PM. *Paper not in the database*

3:30PM. *Pattern recognition for infrared profiles of steel strips based on fuzzy knowledge*

Ruben Usamentiaga, Daniel Garcia, Diego Gonzalez and Julio Molleda

10. Friday, July 14, 5:00PM-6:00PM

Image Understanding and Recognition, Chair: Fernando Lopez Peña, Room: CASTELAO

5:00PM. *Genetic Techniques for Pattern Extraction in Particle Boards Images*

Marco Gamassi, Piuri Vincenzo, Scotti Fabio and Roveri Manuel

5:30PM. *Velocity Measurment by a Vision Sensor*

Suleyman Malki, G. Deepak, Vincent Mohanna, Markus Ringhofer and Lambert Spaanenburg

11. Friday, July 14, 6:00PM-6:30PM

Special Session: Closing Session, Chair: Fernando Lopez Peña Fabio Scotti, Room: CASTELAO