# IEEE-CIS-Chapter Mexico

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#### **EDITORIAL**

Dear members:

This special edition of the newsletter is dedicated to let everybody know about the event of our chapter, the "International Seminar on Computational Intelligence 2005", which was held in Mexico City, October 17 and 18, 2005, in La Salle University. We renew the invitation to all members of the chapter to send us their contributions to be included in the next regular edition of the newsletter, which will be the January 2006 issue.

### **OPENING CEREMONY**

The International Seminar of Computational Intelligence was organized for the second time. The event was held at La Salle University in Mexico City on October 17-18, 2005. For the inauguration event on October 17<sup>th</sup>, our Society's president, Prof. Jacek Zurada, participated with an inauguration speech for the seminar. The academic and administrative deans of La Salle University were also present at the event. After

the inauguration event, two distinguished lecturers of the IEEE, Prof. Jacek Zurada and from DLP program Prof. Evangelia Micheli-Tzanakou, gave interesting lectures.



**Opening Ceremony** 



Prof. Zurada in his inauguration speech

# **DISTINGUISHED LECTURERS**

After the inauguration event, two distinguished lecturers of the IEEE, Prof. Jacek Zurada and from DLP program Prof. Evangelia Micheli-Tzanakou, gave interesting lectures on their respective areas of research. On October 17<sup>th</sup> Prof. Zurada talked about "Rule Extraction in Data Mining".



Prof. Zurada giving his lecture.



Prof. Zurada receiving his diploma for the talk from the chair of the IEEE CIS Mexico Chapter, Prof. Patricia Melin and from the Program Co-Chair of the event Prof. Eduardo Gomez-Ramirez.



Prof. Zurada with some organizers of the event

On October 18<sup>th</sup> from the IEEE Distinguished Lecture Program, Prof. Evangelia Micheli-Tzanakou talked about "Feature Extraction in Computational Intelligence". Prof. Micheli-

Tzanakou divided her lecture in four parts. The first part consisted of basic concepts of neural networks and a modular architecture that combines several methods for analyzing complex data, like wavelets, fractal dimensions, moments, Fourier transform, etc. The second part consisted of the modular architecture applied to the problem of diagnosing Parkinson's illness with real medical data in which the lecturer is doing research at this moment. The third part consisted of the modular architecture applied to the problem fingerprint recognition for real-world applications. The fourth part consisted of the modular neural network architecture applied to the problem of detecting if a person is lying or not. These applications, were shown to be successfully solved with the modular neural network architecture.



Prof. Micheli-Tzanakou lecturing.



Prof. Micheli-Tzanakou receiving her diploma for the talk from the chair of the Mexico Chapter



Prof. Micheli-Tzanakou with the organizers of the event

The attendance for the opening ceremonies and these lectures was about 100 persons, including 25 IEEE members from the chapter.



Students participating in one of the lectures

## PLENARY AND INVITED SPEAKERS

The International Seminar had 2 plenary presentations and 4 invited papers on interesting theoretical and applied themes related to computational intelligence. The plenary speakers were Prof. Edgar Sanchez with the talk "Discrete Time Recurrent Neural Control", and Prof. Carlos Coello with the talk "A Short Introduction to Evolutionary Multi-Objective Optimization and its Application".



Prof. Edgar Sanchez in his speech



Prof. Carlos Coello in his talk

The four invited papers were Prof. leroham Baruch, "Identification and Control of Non-Linear Systems using Neural Networks", Prof. Oscar Castillo, "Lyapunov Stability on Type-2 Fuzzy Logic Control", Prof. Eduardo Gomez-Ramirez "Fuzzy logic Controlled Animatronics", and Prof. Pilar Gomez-Gil "The Role of Neural Networks in the Interpretation of Antique Hand-written Documents". There were also 20 regular paper presentations on the technical program of the seminar the web page is <a href="www.hafsamx.org/cis-chmexico/seminar05">www.hafsamx.org/cis-chmexico/seminar05</a>



Prof. leroham Baruch in his invited talk



Prof. Oscar Castillo giving his lecture



Prof. Eduardo Gomez-Ramirez giving his talk



Prof. Pilar Gomez-Gil in her talk

#### **CLOSING CEREMONY**

For the closing ceremony on October 18<sup>th</sup> the DLP lecture Prof. Evangelia Micheli-Tzanakou the academic and administrative deans of La Salle University and the organizers of the event were present. A competition for the Best Student Paper was also organized. The first place was for Giovanni Egidio Pazienza, Elisabet Golobardes Ribé. Xavier Vilasìs Cardona and Marco Balsi with the paper "CNN vision, Decision Trees and CBR for an Autonomous Robot Navigation System", from Departament d'Electrònica, Enginyeria i Arquitectura La Salle, Universitat "Ramon Llull", Barcelona España. The second place was for Jorge Cruz Serrano, Patricia Melin and Oscar Montiel with the paper "Pattern Recognition for Face and Fingerprint using segmentation and feature extraction with parallel Modular Neural Networks", from Tijuana Institute of Technology, Mexico. The third place was for Jose A. Ruz-Hernández, Edgar N. Sánchez, and Dionisio A. Suárez, with the paper "Optimal Training for Associative Memories Based on Recurrent Neural Networks", from CINVESTAV. Unidad Guadalajara, Mexico.



Giovanni Egidio Pazienza first place for Best Student paper



Jorge Cruz Serrano second place for Best Student Paper



Jose A. Ruz-Hernández third place for Best Student Paper



Prof. Micheli-Tzanakou, the organizers of the event with the students of the Best papers award.



The proceedings in CD format were distributed to all participants of the seminar. A meeting of the members of the chapter was also held on October 17<sup>th</sup>, to discuss the activities already done and to plan future events and activities. The participants did come from several cities of Mexico, like Guadalajara, Puebla, Campeche, Mexico City, and Tijuana. The chapter's website is located at www.hafsamx.org/cis-chmexico/