

# NNAM 2006 Preliminary Program

## November 20-24, 2006

	Tutorials	Technical Part				
Hour	Tuesday	Wednesday	Thursday	Friday		
08:00-08:20	Registration	Registration	Registration	Registration		
08:20-08:40						
08:40-09:00						
09:00-09:20	Tutoriales	Opening	Invited Talk	Invited Talk		
09:20-09:40			Juan vargas	Manuel Reyes Gómez		
09:40-10:00			Hall “B”	Hall “B”		
10:00-10:20		Technical Session	Data Analysis, Pattern Recognition and Self-Organization	Technical Session		
10:20-10:40					Support Vector Machines	
10:40-11:00						
11:00-11:20		Invited Talk	Break			
11:20-11:40		Bernard Widrow		Technical Session		
11:40-12:00		Hall “B”			Vision and Image Processing	
12:00-12:20		Technical Session	Technical Session			
12:20-12:40		Algorithms and Learning		Real World Applications		
12:40-13:00					Break	
13:00-15:00	Lunch Time	Lunch Time	Lunch Time			
15:00-15:20	Tutorials	Technical Session	Technical Session	Break		
15:20-15:40					Associative Memories	Break
15:40-16:00						
16:00-16:20		Invited Talk				
16:20-16:40			Alexander Veindenbaum			
16:40-17:00				Break		
17:00-17:20		Invited Talk				
17:20-17:40			Jesús Cardeñosa			
17:40-18:00				Hall “B”		
18:00-18:20		Hall “B”				
18:20-18:40			Closure			
18:40-19:00						
19:00-XX:XX						

# NNAM 2006 Preliminary Program

## Tuesday 21

Tutorials to be held at CIC-IPN from 09:00 to 13:00 and then from 13:00 to 19:00

## Wednesday 22

08:00 – 09:40 (Place to be announced)

**Registration**

09:40 – 11:00 (Hall “B”)

**Opening**

11:00 – 12:00 (Hall “B”)

**Invited Talk: Bernard Widrow**  
“Cognitive” Memory and its Applications  
**Chair: Humberto Sossa**



12:00 – 13:00 (Place to be announced)  
**Technical Session: Algorithms and Learning:**  
**Chair: To be announced**

Increasing Boltzmann Machine Learning Speed and Accuracy with the High Order Decimation Method  
*Enric Farguell, Eduardo Gómez and Ferran Mazzanti*

Bounded Weights Trajectories for Neural Network State Estimation  
*Isaac Chairez, Alexander Poznyak and Tatyana Poznyak*

Hepatitis C Viral Load Control Applying Hamilton-Jacobi And Sliding Mode Techniques  
*Ramón F. Miranda, Isaac Chairez and Agustín Cabrera*

13:00 – 15:00

**Lunch Time**

15:00 – 16:40 (Place to be announced)

**Technical Session: Neural Control and Robotic Applications:**  
**Chair: To be announced**

Local Optimal Control Based on Neural Network Observer States  
*Nadezhda Aguilar, Agustín Cabrera and Isaac Chairez*

A Direct Torque Vector Neural Control of a Three Phase Induction Motor  
*Ieroham S. Barouh, Carlos R. Mariaca and Irving P. de la Cruz*

Neural Network Model for Balancing a Biped Robot  
*Daniel Zaldivar, Erik Cuevas, Marco A. Pérez and Raul Rojas*

RNN Identification and Control of Nonlinear Plants Using the Recursive Marquardt Algorithm  
*Ieroham Barouh, Saul Escalante and Carlos R. Mariaca*

Forward Models and the Prediction of Undesired Situations  
*Bruno Lara, Juan Manuel Rendon and Marcos Capistran*

17:00-18:00 (Hall “B”)

**Invited Talk: Armando Guevara**  
Is-Net.Net: Spatially Enabled Information Services  
**Chair: To be announced**



## Thursday 23

08:00 – 09:00 (Place to be announced)

**Registration**

09:00-10:00 (Hall “B”)

**Invited Talk: Juan Vargas**

**Data Mining**

**Chair: To be announced**



10:00 – 11:20 (Place to be announced)

**Technical Session: Data Analysis, Pattern Recognition and Self-Organization:**

**Chair: To be announced**

Analysis and Classification of Car Engine Sounds to Diagnose Failures with the Help of Neural Networks

*Luis A. Méndez and Orión F. Reyes*

Personalizing Google’s Search Results using Naïve Bayesian Probabilistic Model

*Srinivasa K G, Srinivas Kumar M, Vinay T C, Venugopal K R and Lalit M Patnaik*

PM10 Classification with SOM Neural Networks for Air Quality Levels Estimation

*Maria G. Cortina, J. Miguel Barrón, Sergio Ledesma, D. Andina and A. Vega*

Effect of Long-delay Connections to Realize a Self-Organization of Firing Patterns that Vary Smoothly in Space

*Toshio Akimitsu, Yoichi Okabe and Akira Hirose*

11:40 – 13:00 (Place to be announced)

**Technical Session: Real World Applications**

**Chair: To be announced**

The Use of Artificial Neural Networks in Modeling the High-Pressure, Suspensive Waterjet Cutting Process of Syenite

*Andrzej Perec, Grzegorz Dzuga and Mateusz Ruzyllo*

Physical Model-Free Observer for Nuclear Reactors using Differential Neural Networks with Sliding Mode Learning

*José H. Pérez and Alexander Poznyak*

Unusual Changes of Consumption Detection in Mobile Phone Users

*Paola Britos, Hernan Grosser, Enrique Sierra and Ramon Garcia*

Selecting Pedagogical Protocols Using SOM

*Fernando Salgueiro, Zulma Cataldi, Paola Britos, Enrique Sierra and Ramon Garcia*

13:00 – 15:00

**Lunch Time**

15:00 – 16:00 (Place to be announced)

**Technical Session: Associative Memories:**

**Chair: To be announced**

Associative Memory: Information and Topology

*David Dominguez, Kostadin Koroutchev, Eduardo Serrano and Francisco Rodríguez*

Alternative Algorithm for Multi-Layered Morphological Networks

*Ricardo Barrón, Humberto Sossa and Benjamín Cruz*

Efficient Codebooks for Visual Concept Recognition by ASSOMs Activation

*Grégoire Lefebvre and Christophe Garcia*

17:00-18:00 (Hall “B”)

**Invited Talk: Jesús Cardeñoza**

**Universal Networking Language**

**Chair: To be announced**



## Friday 24

08:00 – 09:00 (Place to be announced)

**Registration**

09:00-10:00 (Hall “B”)

**Invited Talk: Manuel Reyes**  
**Probabilistic Graphical Models for Audio and Biology**  
**Chair: To be announced**



10:00 – 11:00 (Place to be announced)

**Technical Session: Support Vector Machines**  
**Chair: To be announced**

Drowsy Driver Detection Using Wavelets and Support Vector Machines  
*Rodolfo E. Ibarra, Miguel González, Ariel L. García, Neil Hernández and Jaime Mora*

Isolated Character Recognition by using Support Vector Machines and Optimal Feature Vectors  
*Hermenegildo Cisneros, Ricardo Barrón and Benjamín Cruz*

Heuristics to Reduce the Training Time of SVM Algorithm  
*Ariel L. García, Neil Hernández, Miguel González, Rodolfo E. Ibarra and Jaime Mora*

11:20 – 12:20 (Place to be announced)

**Technical Session: Vision and Image Processing**  
**Chair: To be announced**

Performance of Lossy Image Compression Coders on Textures  
*Osslan O. Vergara, Raúl Pinto and José Ruíz*

SOFM Neural Network Texture Segmentation  
*Erik Cuevas, Daniel Zaldivar, Marco A. Pérez and Raul Rojas*

Licence Plate Location and Recognition Using Decision Regions of Color with Genetic Algorithms and Neural Networks  
*Gilberto A. Apodaca and Patricia Rayón*

13:00 – 15:00

**Lunch Time**

16:00 – 17:00 (Hall “B”)

**Invited Talk: Alexander Veindenbaum**  
**Architectural Techniques for Reducing Energy Consumption in Associative Data Caches**  
**Chair: To be announced**



17:20 – 18:20 (Hall “B”)

**Invited Talk: César Galindo Legaria**  
**Evolution of Database Technologies**  
**Chair: To be announced**



18:20 – 19:00 (Hall “B”)

**Closure**