

# Table of Contents / Índice

	Pág./Page
<b>Pattern Recognition and Image Processing</b>	
Robust Enhancement for Proximal Support Vector Machines <i>Meng Zhang, Gaofeng Wang and Lihua Fu</i>	3
Camera-Based 3D Motion Tracker for Interactive Computer Graphics Animation <i>Alejandro Cornejo and María Elena Algorri</i>	17
Optimization of Random Sampling for Character Recognition Using Large Binaries Strings <i>H. Jiménez Hernández and Jesús Figueroa Nazuno</i>	29
Identification of Structure-Predictability Relations in Time Series with Pattern Recognition Techniques <i>E. Bautista Thompson and Jesús Figueroa Nazuno</i>	43
Mobile System for Regular Polyhedron Recognition and Location <i>Mauricio Gabriel Orozco del Castillo</i>	55
Characterization of the Vascular Network in a Normal Human Fundus Retina <i>J. Silvano Mendoza Mendiola, Edgardo M. Felipe Riverón, Flavio A. Sánchez Garfias, Erick Morales Silva, Jorge I. Ruiz Ramírez and David Silva Leyva</i>	67
A Probabilistic Approach for Adaptive Sizing in Visual Tracking <i>Héctor Barrón, Janeth Cruz and Leopoldo Altamirano</i>	79
New Results on the Lernmatrix Properties <i>F. A. Sánchez Garfias, Juan Luis Díaz de León Santiago and Cornelio Yáñez Márquez</i>	91
Experimental Analysis of the Superposition of Information in Random Memory Spaces <i>H. Jiménez Hernández, A. Ramos Fonseca and Jesús Figueroa Nazuno</i>	103
Continuous Speech Recognition Using Loudness and RO Parameter Segmentation into Syllables Units <i>José Luis Oropeza Rodríguez and Sergio Suárez Guerra</i>	115
<b>Natural Language Processing</b>	
Ontology-Based Knowledge Management of Chinese Historical Official Title: an Overview of the HOTKB Project <i>Zhu Junwu and Jiang Yi</i>	127

Experiments in Text Categorization Using Term Selection by Distance to Transition Point <i>Edgar Moyotl Hernández and Héctor Jiménez Salazar</i>	139
Using Selectional Preferences for Extending a Synonymous Paraphrasing Method in Steganography <i>Hiram Calvo and Igor A. Bolshakov</i>	147
Representation of Name Sequences in Spanish using Context Free Grammar <i>Noé Alejandro Castro Sánchez, José Ángel Vera Félix, Igor A. Bolshakov and Grigori Sidorov</i>	157
<b>Scientific Computing</b>	
Applying Supervised Clustering to Landsat MSS Images into GIS-Application <i>M. Torres, M. Moreno, R. Quintero and G. Guzmán</i>	167
Geographical Objects Representation by Means of Spatial Ontologies <i>M. Torres, S. Levachkine, M. Moreno and R. Quintero</i>	177
Optimization Heuristic to Solve Bipartition Graphs <i>V. Landassuri Moreno and Jesús Figueroa Nazuno</i>	189
Algorithm to Compute the Depth of a Basin Using 8-Connected Skeleton <i>G. Guzmán, R. Menchaca, M. Moreno, M. Torres and R. Quintero</i>	201
Extracting the Parametric Model of Duffing's Oscillator by Using a High Gain Observer <i>Carlos Aguilar Ibáñez, Juan Mendoza C., Rafael Martínez G. and Rubén Garrido M.</i>	211
On a Stabilizable Control Force for the Inverted Pendulum Cart System <i>Carlos Aguilar Ibáñez and Octavio Gutiérrez F.</i>	221
Reconstructing Equations of the Rossler's System from the y-variable <i>Carlos Aguilar Ibáñez, Jorge Sánchez H., Fortunato Flores, A. Rafael Martínez G., Rubén Garrido M. And Miguel S. Suárez C.</i>	231
Efficient Lossless Data Compression Using Advanced Search Operators and Genetic Algorithms <i>Angel F. Kuri and Oscar Herrera</i>	243
<b>Networks and Distributed Systems</b>	
BPIMS-WS: Service-Oriented Architecture for Business Processes Management <i>Giner Alor Hernández and José Oscar Olmedo Aguirre</i>	255
General Collaboration Architecture to Work with Geographical Information Systems <i>R. Quintero, M. Torres, M. Moreno, C. Carreto and G. Guzmán</i>	265

Exploiting Features of Collaborative Socials Networks in the Desing of P2P Applications	277
<i>José Mitre and Leandro Navarro Moldes</i>	
An Approach for Facilitating Development of Web-Based Information Systems	291
<i>Ángel Israel Ortiz Cornejo, Heriberto Cuayáhuitl and Carlos Pérez Corona</i>	
A New Swarm Intelligence Approach for Routing Algorithms	305
<i>José L. Aguilar</i>	
Sub-Game Perfection in Semantic Web Services	315
<i>Stephen Kinsella, Juan M. Gómez, Christoph Bussler and Dieter Fensel</i>	
 <b>Modeling and Simulation</b>	
Classification of Times Series Based on their Inner Structures	331
<i>H. Solís Estrella, E. Bautista Thompson and Jesús Figueroa Nazuno</i>	
Evolutionary Algorithm Based on a Markov Graphical Model Selection of Promising Solutions	341
<i>Eunice Ponce de León, Elva Díaz and Felipe Padilla</i>	
On Numerical Simulation of Linear Acoustic and Electromagnetic Waves in Unbounded Domains	349
<i>Denis Filatov</i>	
 <b>Digital Signals Processing</b>	
Adaptive Multichannel Non Parametric Rank M-Type Filter to Remove Impulsive Noise from Color Images	359
<i>Francisco Gallegos Funes, Volodymyr Ponomaryov and Alberto Rosales Silva</i>	
Lifting Based DWT for Lossy Image/Signal Compression	373
<i>Oleksiy Pogrebnyak, Pablo Manrique Ramírez and Enrique Guzmán Ramírez</i>	
Interpolation with Splines and FFT in Wave Signals	387
<i>Luis Pastor Sánchez Fernández</i>	
 <b>Digital Systems Design</b>	
An Efficient FPGA Architecture for Block Ciphering in Third Generation Cellular Network	403
<i>Tomás Balderas Contreras, René A. Cumplido Parra</i>	

Predictive Array Access Cache-PAAC71	415
<i>Alejandro Villar Briones, Oscar Camacho Nieto and Luis Alfonso Villa Vargas</i>	
Instructions-Wake-Up mechanism: Power and Timing Evaluation	429
<i>Marco A. Ramírez, Adrian Cristal, Alexander V. Veidenbaum, Luis Villa and Mateo Valero</i>	
 <b>Programming Languages</b>	
Prepare Yourself... The Tiger Will Be Unleashed Soon	447
<i>Maria Lucía Barrón Estrada, Ryan Stansifer and Ramón Zatarain Cabada</i>	
Implementing a CPS Compiler for Functional Languages with Zero Overhead Exception Handling	459
<i>Ramón Zatarain Cabada, Ryan Stansifer and María Lucía Barrón Estrada</i>	
MOOL: An Object-Oriented Language with Generics and Modules	471
<i>Maria Lucia Barrón Estrada, Ramón Zatarain Cabada and Ryan Stansifer</i>	
AID: An Object-Relational Schema Design-Tool	483
<i>Hassan Badir, Etienne Pichat and He Xiaojun</i>	
A Preprocessor Based Parsing System	495
<i>Pradip Peter Dey, Mohammad N. Amin and Thomas M. Gatton</i>	