

Table of Contents

Índice

Page/Pág.

Artificial Intelligence Industrial Applications I

Design of an Intelligent Geographic Information System, Using a Multi-Agent System Model	3
<i>José Nava, Gaston Gallardo</i>	
Evolving a Heterogeneous Foraging Robot Task	11
<i>Fernando M. Montes González, Fernando Aldana Franco, Luis Felipe Marín Urias, Homero Vladimir Ríos Figueroa.</i>	
Graphic Representation of the Competitiveness Model developed under a Fuzzy Characterization	19
<i>Darwin Young, Pedro Pérez, Alberto Ochoa, Jöns Sánchez</i>	
Intelligent System to Emergences based on Ant Colony	31
<i>Omar Cano Cendejas, S. Jons, José Sandoval</i>	
Parameter Tuning: Simulated Annealing for Function Optimization	38
<i>Daniel Cuellar, Elva Díaz, Eunice Ponce de León</i>	

Artificial Intelligence Industrial Applications II

Controlling the supermarket service.....	49
<i>José Antonio Montero, L. Enrique Sucar</i>	
An Innovative Data Quality Diagnostic Tool in a Business Intelligence Context.....	57
<i>Manuel Mejía Lavalle, Ricardo Sosa Ríos</i>	
New Codification for Genetic Algorithms with Crossed Binary Coding.....	67
<i>Youness EL Hamzaoui, J. A. Hernández</i>	
Intelligent Systems and their Application to Power Systems	77
<i>Gustavo Arroyo Figueroa</i>	
Bayesian Networks Applications on Information Security	87
<i>Isaí Rojas González and José Omar García</i>	

Artificial Intelligence Social Applications

Outlier Analysis for Plastic Card Fraud Detection A Hybridized and Multi-objective Approach	99
<i>Arturo Elías Ramírez, Alejandro Padilla Díaz</i>	
Hello from Mars: A Sociolinguistic approach to Mars 500 Twitter.....	109
<i>Alberto Ochoa, Emmert Kaudallis, Arturo Hernández, Sandra Bustillos</i>	
Implementing Mahalanobis Distance to select element in a Dyoram Gift Card.....	115
<i>Jesús Rodríguez, Cecilia Morales, Raúl Holguín</i>	

Towards a Gesture Selection Model influenced by Personality and Emotional State for Virtual Characters	122
<i>María Lucía Morales Rodríguez, Patricia Alanís Maldonado, Claudia Guadalupe Gómez Santillán, Arturo Hernández Ramírez, Rodolfo A. Pazos Rangel</i>	
Water on water: A Hybrid Approach using Intelligent Water Drops and Cultural Algorithm to improve a shoal in FishVille	130
<i>Alberto Ochoa, Arturo Hernández, Sandra Bustillos, Antonio Zamarrón, Rubén Jaramillo, Paula Hernández, Ikkadh Dagheranis</i>	

Artificial Intelligence Educational Applications

Authoring tool architecture for edutainment systems	139
<i>Gilberto Huesca and Julieta Noguez</i>	
Design of mobile collaborative environments using smartphones to support learning.....	147
<i>Arturo Serrano Santoyo, Gerardo Tovar Ramos, Efrain Kantel Escobedo, Javier Organista Sandoval</i>	
Interpreter for the deployment of intelligent tutoring systems in mobiles devices.....	158
<i>Ramón Zantaráin-Cabada, M. L. Barrón-Estrada, Jesús E. Urias-Barrientos</i>	
Lupita: Software architecture for virtual characters on internet and mobiles devices.....	165
<i>José Gildo de Araújo-Júnior, Patricia Alanís-Maldonado, M. Lucía Morales-Rodríguez, Claudia Guadalupe Gómez Santillán, Juan J. González and J. Fraire Huacuja</i>	
Integrating Learning Styles and Affective Behavior into an Intelligent Environment for Learning	172
<i>Yasmín Hernández Pérez, Guillermo Rodríguez, Gustavo Arroyo-Figueroa</i>	
Integrating videogames into Learning object using multiagent approach.....	181
<i>Edgar A. Calvillo-Moreno, Jaime Muñoz-Arteaga, Alberto Ochoa, Francisco Álvarez, Joaquín Pérez, Alejandro Padilla Díaz</i>	
Lmsplan: An architecture to integrate adapted learning objects sequences with LMS.....	189
<i>Lluvia Morales and Jesús Miguel García Gorrostieta</i>	
Developing linguistic resources for the natural indigenous language.....	197
<i>Carmen C. Martínez-Gil, Alejandro Zempoalteca-Pérez, Venustiano Soancalt-Aguilar, Rosa M. Ortega-Mendoza</i>	

Author Index	203
Índice de autores	
Editorial Board of the Volume	205
Comité editorial del volumen	
Additional Reviewers.....	205
Árbitros adicionales	