

# 4<sup>th</sup> Mexican Conference on Pattern Recognition MCPR2012

June 27–30, 2012, Huatulco, Mexico

## PROGRAM

<b>Wednesday June 27</b>	
8:00-9:00	<b>Registration</b>
9:00-10:00	<p>Keynote Address</p> <p><b>From linear representations to object parts</b></p> <p>Professor Gabriella Sanniti di Baja            Instituto de Cibernética "E. Caianiello" del CNR, Italia            IAPR Invited speaker</p>
10:00-10:20	<b>Coffee break</b>
	<b>Sesion 1: Image Processing</b>
10:20-10:40	An automatic image scaling up algorithm Maria Frucci, Carlo Arcelli, and Gabriella Sanniti di Baja
10:40-11:00	Sampling Techniques for Monte Carlo Matrix Multiplication with Applications to Image Processing Humberto Madrid, Valia Guerra, and Marielba Rojas
11:00-11:20	Extended Photometric Sampling for Surface Shape Recovery Felipe Hernández-Rodríguez and Mario Castelán
11:20-11:40	A segmentation method for tree crown detection and modelling from LiDAR measurements José Luis Silván-Cárdenas
11:40-12:00	<b>Coffee break</b>
	<b>Sesion 2: Image Processing and Recognition</b>
12:00-12:20	Composite Correlation Filters for Detection of Geometrically Distorted Objects Using Noisy Training Images Pablo M. Aguilar-González and Vitaly Kober
12:20-12:40	Adaptive Spatial Concealment of Damaged Coded Images Alejandro A. Ramírez-Acosta, Mireya S. García-Vázquez, and Mariko Nakano
12:40-13:00	Breaking reCAPTCHAs with Unpredictable Collapse: Heuristic Character Segmentation and Recognition Claudia Cruz-Perez, Oleg Starostenko, Fernando Uceda-Ponga, Vicente Alarcon-Aquino, and Leobardo Reyes-Cabrera
13:00-13:20	Texture analysis for skin probability maps refinement Michal Kawulok
13:20-15:00	<b>Lunch</b>
	<b>Sesion 3: Computer Vision</b>
15:00-15:20	Human Sign Recognition for Robot Manipulation Leonardo Saldivar-Piñon, Mario I. Chacon-Murguia, Rafael Sandoval-Rodriguez, and Javier Vega-Pineda
15.20-15:40	A tool for hand-sign recognition David J. Rios Soria and Satu Elisa Schaffer
15:40-16:00	Vision System for 3D Reconstruction with Telecentric Lens José Guadalupe Rico Espino, José-Joel Gonzalez-Barbosa, Roberto Augusto Gómez Loenzo, Diana Margarita Córdova Esparza, and Ricardo Gonzalez-Barbosa

<b>Thursday June 28</b>	
8:00-9:00	<b>Registration</b>
9:00-10:00	Keynote Address  <b>Perceptual grouping using superpixels</b>  Professor Sven Dickinson University of Toronto, Canada
10:00-10:20	<b>Coffee break</b>
	<b>Sesion 4: Image and Pattern Recognition</b>
10:20-10:40	<b>Reprogrammed on Friday 29 15:00-15:20</b> Fuzzy Sets for Human Fall Pattern Recognition Marina V. Sokolova and Antonio Fernández-Caballero
10:40-11:00	Improving the multiple alignments strategy for fingerprint verification Miguel Angel Medina-Pérez, Milton García-Borroto, Andres Eduardo Gutierrez-Rodríguez, and Leopoldo Altamirano-Robles
11:00-11:20	Using short-range interactions and simulated genetic strategy to improve the protein contact map prediction Cosme E. Santiesteban Toca, Milton García-Borroto, and Jesus S. Aguilar Ruiz
11:20-11:40	Associative Model for Solving the Wall-Following Problem Rodolfo Navarro, Elena Acevedo, Antonio Acevedo, and Fabiola Martínez
11:40-12:00	<b>Coffee break</b>
	<b>Sesion 6: Pattern Recognition</b>
12:00-12:20	The List of Clusters Revisited Eric Sadit Tellez and Edgar Chavez
12:20-12:40	Compact and Efficient Permutations for Proximity Searching Karina Figueroa Mora and Rodrigo Paredes
12:40-13:00	Up and Down trend associations in analysis of time series shape association patterns Ildar Batyrshin
13:00-13:20	Computing #2SAT and #2UNSAT by Binary Patterns Guillermo De Ita Luna and J. Raymundo Marcial-Romero
13:20-13:40	NURBS parameterization: a new method of parameterization using the correlation relationship between nodes Sawssen Jalel, Mohamed Naouai, Atef Hamouda, and Malek Jebabli

<b>Friday June 29</b>	
8:00-9:00	<b>Registration</b>
9:00-10:00	<p>Keynote Address</p> <p><b>Automatic design of artificial neural networks and associative memories for pattern classification and pattern restoration</b></p> <p>Professor Humberto Sossa Centro de Investigación en Computación del IPN, Mexico</p>
10:00-10:20	<b>Coffee break</b>
	<b>Sesion 7: Pattern Recognition and Neural Networks</b>
10:20-10:40	<p>Experimental validation of an evolutionary method to identify a mobile robot's position Angel Kuri-Morales and Ignacio Lopez-Pe~na</p>
10:40-11:00	<p>Genetic Algorithm for Multidimensional Scaling over Mixed and Incomplete Data P. Tecuanhuehue-Vera, J. A. Carrasco-Ochoa, and J. Fco. Martinez-Trinidad</p>
11:00-11:20	<p>A modi_ed back-propagation algorithm to deal with severe two-class imbalance problems on neural networks R. Alejo, P. Toribio, R.M. Valdovinos, and J.H. Pacheco-Sanchez</p>
11:20-11:40	<p>A Heuristically Perturbation of Dataset to Achieve a Diverse Ensemble of Classifiers Hamid Parvin, Sajad Parvin, Zahra Rezaei, and Moslem Mohamadi</p>
11:40-12:00	<b>Coffee break</b>
	<b>Sesion 8: Document Processing and Speech Recognition</b>
12:00-12:20	<p>A New Document Author Representation for Authorship Attribution Adrián Pastor López-Monroy, Manuel Montes-Y-Gómez, Luis Villaseñor-Pineda, Jesús Ariel Carrasco-Ochoa, and José Fco. Martínez-Trinidad</p>
12:20-12:40	<p>A Machine-Translation Method for Normalization of SMS Darnes Vilariño, David Pinto, Beatriz Beltrán, Saul León, Esteban Castillo, and Mireya Tovar</p>
12:40-13:00	<p>GA Approaches to HMM Optimization for Automatic Speech Recognition Yara Pérez Maldonado, Santiago Omar Caballero Morales, and Roberto Omar Cruz Ortega</p>
13:00-13:20	<p>Environmental Sound Recognition by Measuring Signi_cant Changes in the Spectral Entropy Jessica Beltrán-Márquez, Edgar Chávez, and Jesús Favela</p>
13:20-15:00	<b>Lunch</b>
15:00-15:20	<p>Fuzzy Sets for Human Fall Pattern Recognition Marina V. Sokolova and Antonio Fernández-Caballero</p>
15.20-15:40	<p>Phonetic Uni_cation of Multiple Accents for Spanish and Arabic Languages Saad Tanveer, Aslam Muhammad, Martinez-Enriquez A. M., and Escalada-Imaz G.</p>
15:40-16:00	<p>Reduced Universal Background Model for Speech Recognition and Identification System Lachachi Nour-Eddine and Adla Abdelkader</p>
16:20-16:40	<p>Unsupervised Linkage Learner based on Local Optimums Hamid Parvin and Sajad Parvin</p>
20:00-22:00	<b>Conference Dinner</b>

<b>Saturday June 30</b>			
8:00-9:00	<b>Registration</b>		
9:00-10:30	Tutorial 1 Professor Sanniti	Tutorial 2 Professor Dickinson	Tutorial 3 Professor Sossa
10:30-11:00	<b>Coffee break</b>		
11:00-12:00	Tutorial 1 Professor Sanniti	Tutorial 2 Professor Dickinson	Tutorial 3 Professor Sossa