

Conference Program

Wednesday, February 26th		
09:00	Opening Ceremony	
09:30	Plenary Talk	Device-to-Device (D2D) Communication: Standalone versus Infrastructure-coordinated. <i>Dr. Frank Y. Li.</i> University of Adger, NORWAY.
Chair: Dra. Ofelia Cervantes		
Morning Sessions		
Information Security		Communications
Chair: MS. Eduardo Jiménez.		Chair: Dr. Jorge Rodríguez
10:30	Paper # 58	Characterization of worm attacks using Entropy, Mahalanobis distance and K-Nearest Neighbors. <i>Jayro Santiago-Paz and Deni Torres.</i> CINVESTAV Guadalajara, MEXICO.
10:30	Paper # 46	Experimental analysis of the Interaction between Modulation Instability and Stimulated Raman Scattering in short lengths of Optical Fibers. <i>Marlen Alexis González Reyna, Julián Estudillo Ayala, Roberto Rojas Laguna and Everardo Vargas-Rodríguez.</i> Universidad de Guanajuato, MEXICO.
11:00	Paper # 61	Classification of Environmental Audio Signals Using Statistical-Time-Frequency Features. <i>J. Ruben Delgado-Contreras, Juan Pablo Garcia-Vazquez and Ramon Brena.</i> ITESM, MEXICO.
11:00	Paper # 55	Resolution Improvement of an UWB Microwave Imaging Radar System Using Circular Polarization. <i>Richard Torrealba Melendez, Jose Luis Olvera Cervantes and Alonso Corona Chavez.</i> INAOE, MEXICO.
11:30	Paper # 43	Design of an Academic Microcontroller and its Application to Authenticated Encryption. <i>Alejandro Juárez Arellano, Cuauhtemoc Mancillas López and Luis Gerardo de La Fraga.</i> CINVESTAV, MEXICO.
11:30	Paper #24	Real-time Vehicle Color Identification for Surveillance Videos. <i>Chih-Yang Lin, Cheng-Hao Yeh and Chia-Hung Yeh.</i> Asia University / National Sun Yat-sen University, TAIWAN.
12:00	Coffee Break	

Wednesday, February 26th

Afternoon Sessions

Cloud & Parallel Computing

Chair: Dra. Ofelia Cervantes

12:15	Paper # 38	A Cloud Environment for Backup and Storage Data. <i>Hugo Eduardo Camacho Cruz, José Alfredo Brambila Hernández, Alfredo Peña Ramos and José Manuel Vargas Martínez.</i> Universidad Politécnica de Altamira, MEXICO.
12:45	Paper # 15	FLAP: Tool to generate CUDA code from sequential C code. <i>Erika Hernández Rubio, Amilcar Meneses Viveros, Pedro M. Cortés Pérez, Sergio D. Hernández Zavala and Héctor M. Martínez Ríos.</i> IPN ESCOM/ CINVESTAV, MEXICO
13:15	Paper # 65	Matlab Graphic User Interface for image segmentation using Markov random fields and entropy estimation with parallel <i>Oswaldo Gutiérrez, Alejandro Serna-Domínguez, Ismael de La Rosa, Jesús Villa and Efrén González.</i> Instituto Tecnológico Superior de Fresnillo/Instituto Tecnológico de Lázaro Cárdenas/Universidad Autónoma de Zacatecas, MEXICO.

Power Electronics & Simulation

Chair: Dr. José Luis Vázquez

12:15	Paper # 28	Direct Torque Control of a Permanent-Magnet Synchronous Motor with Neural Networks. <i>Felipe Trujillo-Romero, Santiago Omar Caballero Morales, Fermin Hugo Ramírez Leyva and Edgar Peralta-Sánchez.</i> Universidad Tecnológica de la Mixteca/Universidad Popular Autónoma del Estado de Puebla, MEXICO.
12:45	Paper # 31	Gabor and the Wigner-Ville Transforms for Broken Rotor Bars Detection in Induction Motors. <i>Ana Martínez-Herrera, Luis Ledesma-Carrillo, Misael Lopez-Ramirez, Sebastian Salazar-Colores, Eduardo Cabal-Yepez and Arturo Garcia-Perez.</i> Universidad de Guanajuato, MEXICO.
13:15	Paper # 27	A combined controller for a PV simulator. <i>Gerardo Escobar, Manuel Jesus Lopez-Sanchez, Michael Hernandez-Gomez, Ignacio Enrique Llanez and Eduardo Ernesto Ordonez.</i> Universidad Autónoma de Yucatán, MEXICO / Schneider Toshiba Inverter Europe, FRANCE.

Thursday, February 27th

09:00	Plenary Talk	<p>Recent Trends in Multimedia Communications over the Web.</p> <p><i>Dr. Enrico Masala.</i></p> <p>Politecnico di Torino, ITALY.</p>
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Chair: Dr. José Luis Zechinelli.

Morning Sessions

Computer Vision			Robotics		
Chair: Dr. Gerardo Ayala			Chair: Dr. Daniel Vallejo		
10:00	Paper # 54	<p>Garabato: A proposal of a Sketch-Based Image Retrieval System for the Web.</p> <p><i>Ana Maria Miguelena, Guillermo De Jesús Hoyos Rivera and Antonio Marin Hernandez.</i></p> <p>Universidad Veracruzana, MEXICO.</p>	10:00	Paper # 63	<p>Development of Motion Models for Writing of the Spanish Alphabet on the Humanoid Bioloid Robotic Platform.</p> <p><i>Santiago Omar Caballero Morales.</i></p> <p>Universidad Tecnológica de la Mixteca, MEXICO.</p>
10:30	Paper # 52	<p>Indoor Home Furniture Detection with RGB-D Data for Service Robots.</p> <p><i>Oscar Alonso Ramírez, Antonio Marin Hernandez, Devy Michel and Fernando Montes.</i></p> <p>Universidad Veracruzana, MEXICO / LAAS-CNRS, FRANCE.</p>	10:30	Paper # 29	<p>Identification and PID Control for a Quadcopter.</p> <p><i>Illiani Carro-Pérez, Hugo G Gonzalez-Hernandez, Daniel Flores-Araiza, Jesús Fortoul-Díaz and Raúl Máximo-Álvarez.</i></p> <p>ITESM Puebla, MEXICO.</p>
11:00	Paper # 20	<p>Object Recognition and Path-Drawing for a Mobile Robot.</p> <p><i>Rubén Maldonado Lozano and Leticia Flores Pulido.</i></p> <p>Universidad Autónoma de Tlaxcala, MEXICO.</p>	11:00	Paper # 42	<p>Implementation of an embedded system on a TS7800 board for robot control.</p> <p><i>Jerome Leboeuf-Pasquier, Donald Carr-Finch, Arturo González Villa and Kevin Herrera Burgos.</i></p> <p>Universidad de Guadalajara, MEXICO.</p>
11:30	Paper # 32	<p>Tracking and Prediction of Motion of Segmented Regions Using the Kalman Filter.</p> <p><i>Angel Juan Sanchez Garcia, Homero Vladimir Rios Figueroa, Antonio Marin Hernandez and Hector Gabriel Acosta Mesa.</i></p> <p>Universidad Veracruzana, MEXICO.</p>	11:30	Paper # 59	<p>Reasoning about the Past on Temporal Specifications for Motion Planning.</p> <p><i>Everardo Barcenas, Antonio Benitez, Jorge de La Calleja, María Auxilio Medina Nieto and Jorge Rios Martinez.</i></p> <p>Universidad Politécnica de Puebla, MEXICO.</p>
12:00	Coffee Break				

Thursday, February 27th

Afternoon Sessions

Human-Computer Interaction

Chair: Dr. José Luis Zechinelli

12:15	Paper # 73	An approach to visualize unorganized collections of documents. <i>D. Karina Trejo T., María Auxilio Medina Nieto, Jorge De La Calleja, J. Alfredo Sánchez and Érika A. Martínez M.</i> Universidad Politécnica de Puebla / UDLAP, MEXICO.
12:45	Paper #7	Effect of different feedback modalities in the performance of brain-computer interfaces. <i>I. N. Angulo-Sherman and D. Gutiérrez.</i> CINVESTAV Monterrey, MEXICO.
13:15	Paper #16	Student Role Functionalities Towards Learning Management Systems As Open Platforms Through Mobile Devices. <i>Daniel Vázquez Sánchez, Erika Hernández Rubio, Elena Ruíz Ledesma and Amilcar Meneses Viveros.</i> IPN / CINVESTAV, MEXICO.
13:45	Paper #39	Towards an improvement of software development process based on Software Architecture, Model Driven Architecture and Ontologies. <i>Fernando Bartolo Espiritu, Abraham Sanchez Lopez and Luis Josue Calva Rosales.</i> BUAP, MEXICO.

Signal & Video Processing

Chair: Dr. David Báez.

12:15	Paper #53	Deduction of the Impulse Response of the p-step UFIR Filter using kth Moments. <i>Luis Javier Morales-Mendoza, Mario Gonzalez-Lee, Efren Morales-Mendoza, Silverio Pérez-Cáceres, Yuriy Shmaliy and Oscar G Ibarra-Manzano.</i> Universidad Veracruzana / Universidad de Guanajuato, MEXICO.
12:45	Paper #36	FIR filters using atomic window functions implemented on the DSP C6713. <i>Hugo Moises Martinez, Juan Gerardo Avalos, Enrique Escamilla and Juan Carlos Sánchez.</i> IPN, MEXICO.
13:15	Paper #45	Processing Video Frames in iPad for Augmented Reality Applications. <i>César David Corona Arzola and Luis Gerardo de La Fraga.</i> CINVESTAV, MEXICO.

Friday, February 28th

09:00	<p>Plenary Talk</p> <p>LTE Physical Layer. <i>Dr. Jaime Sánchez.</i> CICESE, MEXICO.</p>	
<p>Chair: Dr. Vicente Alarcón.</p>		
<p>Morning Sessions</p>		
<p>Neural Networks</p> <p>Chair: Dr. Roberto Rosas.</p>		<p>Image Processing</p> <p>Chair: Dr. Oleg Starostenko</p>
10:00	Paper # 8	<p>Intelligent Remote Sensing Image Post-Processing Via Two-Level Robust Adaptive Neural Network Computing. <i>Stewart R. Santos A., Gustavo D. Martín Del Campo B. and Josué Antonio López Ruíz.</i> CINVESTAV, MEXICO.</p>
10:30	Paper # 64	<p>Maximum Expectation Algorithm and Neuronal Network base radial applied to the estimate of an environmental variable, evapotranspiration in a green house. <i>Elizabeth Sartillo, José Crispín Hernández, Roberto Morales, Haydee Patricia Martinez and Rafael Ordoñez.</i> Instituto Tecnológico de Apizaco, MEXICO.</p>
11:00	Paper # 66	<p>Measure-based modeling and FPGA Implementation of RF Power Amplifier using a multi-layer perceptron neural network. <i>Jose Cruz Nunez, Jose Cárdenas, José Alejandro Galaviz Aguilar, Christian Gontrand, Benoit Goral and Jacques Verdier.</i> IPN, MEXICO / INL INSA-Lyon, FRANCE.</p>
11:30	Paper # 21	<p>Pitch Estimation For Musical Note Recognition Using Artificial Neural Networks. <i>Jose De Jesus Guerrero-Turrubiates, Sheila Esmeralda Gonzalez-Reyna, Sergio Eduardo Ledesma-Orozco and Juan Gabriel Avina-Cervantes.</i> Universidad de Guanajuato, MEXICO.</p>
10:00	Paper #14	<p>Image Enhancement using Bi-Histogram Equalization with Adaptive Sigmoid Functions. <i>Edgar F. Arriaga-Garcia, Raul E. Sanchez-Yanez and M. G. Garcia-Hernandez.</i> Universidad de Guanajuato, MEXICO.</p>
10:30	Paper # 44	<p>Liquid level control of Coca-cola bottles using an automated system. <i>Maria Margarita Gonzalez Ramirez, Juan Carlos Villamizar Rincon and Joseph Fernando Lopez Parade.</i> Universidad Pontificia Bolivariana, COLOMBIA.</p>
11:00	Paper #6	<p>Spatial Spectrum Pattern Estimation Based on the DEDR-TV Extended Approach for Fractional SAR Imagery Enhancement. <i>Jesús David Torres Rodríguez, José Tuxpan and Juan Israel Yanez.</i> CINVESTAV, MEXICO.</p>
11:30	Paper #4	<p>Spatially Adaptive Regularization for Feature Enhanced Imaging in Harsh Sensing Environments. <i>Joel Alfredo Amao Oliva and Yuriy Shkvarko.</i> CINVESTAV, MEXICO.</p>
12:00	<p>Coffee Break</p>	

Friday, February 28th

Afternoon Sessions

Soft Computing

Biomedical Engineering

Chair: Dr. Gibran Etcheverry

Chair: Dr. Rubén Alejos.

12:15	Paper # 69	A Model for Enterprise Architecture Scenario Analysis based on Fuzzy Cognitive Maps and OWA Operators. <i>Maikel Leyva, Karina Pérez Teruel and Robert I. John.</i> UCI, CUBA / University of Nottingham, UK.	12:15	Paper # 37	Accurate Segmentation of Single Isolated Human Insulin Crystals for In-Situ Microscopy. <i>Geovanni Martinez, Patrick Lindner, Arne Bluma and Thomas Scheper.</i> Universidad de Costa rica, COSTA RICA / Institut fuer Technische Chemie, GERMANY / University of Hannover, GERMANY.
12:45	Paper # 48	Natural or Generated Signals for Indoor Location Systems? An Evaluation in Terms of Sensitivity and Specificity. <i>Carlos Eric Galván-Tejada, Juan Pablo García-Vázquez and Ramon Brena.</i> ITESM, MEXICO.	12:45	Paper # 34	Attractor Reconstruction for Plethysmographic Biosignals. <i>Alberto Hugo Deloya Vélez, Hugo Gustavo González Hernández and Bernardo Reyes Guerra.</i> ITESM, MEXICO.
13:15	Paper # 40	Temporal data alignment and association for event-streaming in ubiquitous environments based on fuzzy-causal dependencies. <i>Jose Roberto Perez Cruz and Saul Eduardo Pomares Hernandez.</i> INAOE, MEXICO.	13:15	Paper # 56	Knee Osteoarthritis Pain Prediction from X-ray Imaging: Data from Osteoarthritis Initiative. <i>Jorge I. Galván-Tejada, José M. Celaya-Padilla, Victor Treviño and José G. Tamez-Peña.</i> ITESM, MEXICO.

14:00

Closing Ceremony