

ROPEC 2016 - Final Program

General Schedule

Time		WEDNESDAY November 9, 2016			
08:00-9:00		Registration Venue: FOYER			
09:00-9:15		Opening Ceremony Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)			
09:15-10:30		ROPEC 2016 Keynote Speech I: Continuous Finite- and Fixed-Time High-Order Regulators <i>Prof. Mikhail V. Basin</i> , Autonomous University of Nuevo Leon, Mexico Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)			
10:30-11:00	Industrial Exhibition Venue: PASILLO	Coffee Break / Industrial Exhibition Opening Venue: PASILLO (Nivel 1)			
11:00-13:00		FOUR PARALLEL SESSIONS, Venue: TERRAZA			
		ARTEMISA	DIANA	AFRODITA	VENUS
		Power Systems I	Power Electronics	Computing I	Multimegawatt Medium-voltage Power-electronic-based Power Systems
13:00-13:20			Coffee Break Venue: PASILLO (Nivel 1)		
13:20-14:30		ROPEC 2016 Keynote Speech II: Transforming Healthcare through Interoperability <i>Prof. Luis Kun</i> , Washington DC, USA Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)			
14:30					
20:00-22:00		Venue:			

Time		THURSDAY November 10, 2016				
08:00-9:00		Registration Venue: FOYER				
09:00-10:00	Industrial Exhibition Venue: PASILLO	ROPEC 2016 Keynote Speech III: Renewable Energy Integration in the Power Market <i>Dr. Guillermo Bautista Alderete</i> , CAISO, USA Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)				
10:00-11:40		FOUR PARALLEL SESSIONS, Venue: TERRAZA				
		ARTEMISA	DIANA	AFRODITA A	AFRODITA B	VENUS
		Power Systems II	Electronics I	Computing II	Renewable Energy I	Heat Transfer
11:40-12:00		Coffee Break Venue: PASILLO (Nivel 1)				
12:00-13:20		FOUR PARALLEL SESSIONS, Venue: TERRAZA				
		ARTEMISA	DIANA	AFRODITA A	AFRODITA B	VENUS
		Power Systems III	Control Systems I	Computer Vision	Evolutionary Computation	Chaotic Systems
13:20-13:40		Coffee Break Venue: PASILLO (Nivel 1)				
13:40-14:40		ROPEC 2016 Keynote Speech IV: Challenges in Integrating Renewable Energy into an Electric Power System <i>Dr. Claudio R. Fuerte Esquivel</i> , Universidad Michoacana de San Nicolás de Hidalgo, México Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)				
14:40						
20:00-23:00	Gala Dinner Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)					

Time		FRIDAY November 11, 2016				
08:00-9:00		Registration Venue: FOYER				
09:00-10:00	Industrial Exhibition Venue: PASILLO	ROPEC 2016 Keynote Speech V: Service Robotics and Spatial Robotics: Two opportunity areas for Mexico <i>Prof. Humberto Sossa</i> , Centro de Investigación en Computación del I.P.N., Mexico Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)				
10:00-11:40		FOUR PARALLEL SESSIONS, Venue:				
		ARTEMISA	DIANA	AFRODITA	VENUS	
		Intelligent Agents and Multi-Agent Systems	Control Systems II	Renewable Energy II	Computing III	
11:40-12:00		Coffee Break Venue: PASILLO (Nivel 1)				
12:00-13:00		FOUR PARALLEL SESSIONS, Venue:				
		ARTEMISA	DIANA	AFRODITA		
		Power Systems IV	Electronics II	Renewable Energy III		
13:00-14:00		ROPEC 2016 Keynote Speech VI: Reading News with Maps by Exploiting Spatial Synonyms <i>Prof. Hanan Samet</i> , University of Maryland, USA Venue: Centro de Convenciones (Rooms: APOLO, POSEIDON and TRITON)				
14:00-14:30		Closing Ceremony				

SCHEDULE OF SESSIONS AND PAPERS

WEDNESDAY PARALLEL SESSIONS (Time: 11:00 - 13:20)			
Power Systems I	Venue: Artemisa	Chair: Dr. Horacio Tovar	
Time	Paper ID	Title	Author(s)
11:00 - 11:20	92	Sensitivity Analysis of Ground Impedances of Power Cables in Electromagnetic Transient Responses	Javier Alejandro Calvillo Avila, Juan Ramon Morales Beltran and Felipe Alejandro Uribe Campos
11:20 - 11:40	87	Uncertainty Modeling of a PSS3B Power System Stabilizer	Luis Adolfo Ordaz Padilla, Rafael Peña, Jorge A. Morales-Saldana and Gedydy Gutierrez-Urueta
11:40 - 12:00	115	Harmonic and Transient State Assessment in the Time-Domain	Ismael Molina-Moreno, Aurelio Medina, Rafael Cisneros-Magaña and Olimpo Anaya-Lara
12:00 - 12:20	58	A Methodology to Determine Transient Recovery Voltage in Short-Line Fault	Daniel Pérez Dorantes, Máximo Hernández Ángeles and Oscar Figueroa Cruz
12:20 - 12:40	9	Harmonic Distortion Produced by Household Equipment	Eliot Jiménez and Manuel Madrigal
12:40 - 13:00	71	Residential Electric Distribution System Based on Intelligent Power Switch	Luis Fernando Rueda Vásquez, Jaime Guillermo Barrero Pérez and Cesar Duarte

WEDNESDAY PARALLEL SESSIONS (Time: 11:00 - 13:20)			
Power Electronics	Venue: Diana	Chair: M.C. Gerardo Marx Chávez Campos	
Time	Paper ID	Title	Author(s)
11:00 - 11:20	64	Optimized Design of a Quadratic Boost Converter Based on the R2P2 Principle	Carmen Delgado, Jorge A. Morales-Saldana, Rafael Peña-Gallardo, Rodrigo Loera-Palomo and Edwing Alberto Moreno Basaldúa
11:20 - 11:40	104	Test-bed to implement energy management strategies in PHEV	Irwin Diaz-Diaz and Martin Rodriguez-Licea
11:40 - 12:00	32	High-Boost, Resonant-Type DC-DC Converters at Power Interfaces for Interconnecting DC Generation To AC Main Grids	Omar Miguel Sanchez, Guillermo A. Anaya Ruiz, Liza G. Zuñiga Garcia, Luis E. Ugalde Caballero, Edgar L. Moreno Goytia and Vicente Venegas Rebollar
12:00 - 12:20	67	Design and implementation of a New controller for a single phase inverter Operating in a microgrid	Jose Arturo Maysse Roque, Ruben Ortega González, Jaimes Jose Rodriguez Rivas, Oscar Carranza Castillo and Daniel Ruiz Vega
12:20 - 12:40	136	FREQUENCY CONTROL OF DC/AC INVERTER	Ahmet Cakanel and Vadim I Utkin
12:40 - 13:00	7	Amplifier For Energy Harvesting: Low Voltage, Ultra Low Current, Rail-To-Rail Input-Output, High Speed	Ali Far

WEDNESDAY PARALLEL SESSIONS (Time: 11:00 - 13:20)			
Computing I	Venue: Afrodita	Chair: Dr. Alain Manzo Martínez	
Time	Paper ID	Title	Author(s)
11:00 - 11:20	128	Indexer of Trixels Using B-Trees Based in Random Access File	Bryan Eduardo Martínez Guzmán, José María Valencia-Ramírez and Jaime Cerda Jacobo
11:20 - 11:40	155	Construction of Semantic Web Search Engine from a specific context.	Jaime Martinez-Vallejo, Juan Carlos Olivares Rojas and Jose Guadalupe Ramoz Diaz
11:40 - 12:00	48	Detection and Classification of Intra Body Acoustic Wave Signals for Wearable Applications	Héctor R. Moncada, Ruth M Aguilar and J Luis TecpanecatI
12:00 - 12:20	145	Guitar Audio Signal Classification by Collapsed Pitch Class Profile	Jose De Jesus Guerrero-Turrubiates, Sergio Ledesma, Sheila Esmeralda Gonzalez-Reyna, Gabriel Avina-Cervantes, Alberto Adrian Jimenez-Zurita and Elisee Ilunga-Mbuyamba
12:20 - 12:40	125	Feature Combinations for the Detection of Malicious Twitter Accounts	Isaac David Reyes, Oscar S. Siordia and Daniela Moctezuma
12:40 - 13:00			

WEDNESDAY PARALLEL SESSIONS (Time: 11:00 - 13:20)			
Multimegawatt medium-voltage power-electronic-based power systems	Venue: Venus	Chair: Dr. Juan Segundo-Ramírez	
Time	Paper ID	Title	Author(s)
11:00 - 11:20	163	Algorithm based on microcontroller for high speed protection in compensated transmission line	Enrique Reyes-Archundia, José Antonio Gutiérrez-Gnecchi, Gerardo Marx Chávez-Campos, Javier Correa-Gómez and Carlos Cardoso-Isidoro
11:20 - 11:40	93	Hybrid Active Power Filter Based on the IRP Theory for Harmonic Current Mitigation	Luis Arthur Cleary Balderas, Aurelio Medina Rios and Omar Cruz Hernandez
11:40 - 12:00	107	Improvement of Damping Impedance Method for Power Hardware in the Loop Simulations	Amaury Aguirre, Monserrat Davila, Pavel Zuniga, Felipe Uribe and Emilio Barocio
12:00 - 12:20	108	Droop Controller Comparison for AC Microgrids	Marco Gutiérrez, Teresa Ixta, Pavel Zuniga, Emilio Barocio and Felipe Uribe
12:20 - 12:40			
12:40 - 13:00			

THURSDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Power Systems II	Venue: Artemisa	Chair: Dra. Elisa Espinosa Juárez	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	55	Switching based modeling of grid interconnected hysteresis current controlled VSC converters	Miguel Esparza and Juan Segundo-Ramírez
10:20 - 10:40	46	Model of Thrust/Load-Torque in terms of Geometric Parameters of the Blade for Design and Simulation of Small Scale Propellers used in Miniature UAV's	Francisco J Ruiz-Sanchez
10:40 - 11:00	95	Tracking of Voltage Variations by means of an Adaptive Filter and Fuzzy Logic	Arturo Mejia-Barron, Martin Valtierra-Rodriguez, David Granados-Lieberman, Juan Amezcuita-Sanchez, Carlos Perez-Ramirez and David Camarena-Martinez
11:00 - 11:20	29	Analysis of aVirtual Gap Reactor as Shunt Compesation Device	Jesus Avila, Enrique Melgoza and Juan Carlos Olivares
11:20 - 11:40	33	Output Filter Control for Matrix Converter in Synchronous Applications	Luis Ramon Merchan Villalba, Jose Merced Lozano Garcia, Alejandro Pizano Martinez, Enrique Arnoldo Zamora Cardenas, Hector Javier Estrada Garcia and Lisseth Celeste Razo Vargas

THURSDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Electronics	Venue: Diana	Chair: Dr. Rodolfo González	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	127	Wind Tunnel Design: Generation and Control of Turbulences.	America Torres, Roberto Tapia and Miguel Villagomez
10:20 - 10:40	76	Fractal dimension theory-based approach for bearing fault detection in induction motors	Carlos Perez-Ramirez, Juan Amezcuita-Sanchez, Martin Valtierra-Rodriguez, David Camarena-Martinez, Aurelio Dominguez-Gonzalez and Rene Romero-Troncoso
10:40 - 11:00	2	Dual Frequency Microstrip Antenna Design for 700 MHz UHF Band and Wlan Application	Ricardo Meneses, Roberto Linares Y Miranda and Laura Montes
11:00 - 11:20	8	Small Size Class AB Amplifier For Energy Harvesting With Ultra Low Power, High Gain, and High CMRR	Ali Far
11:20 - 11:40	51	Fault Detection and Localization Applied in a Fixed Wing Aircraft	Cornelio Morales-Morales, Valeria Alejandra Morales Rodríguez, Manuel Adam Medina and Luis Gerardo Vela Valdés

THURSDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Computing II	Venue: Afrodita A	Chair: Dr. Juan Carlos Olivares Rojas	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	90	A low-cost wearable support system for visually disabled people	Luis González-Delgado, Luis Serpa-Andrade, Kevin Calle-Urgiléz, Antony Guzhñay-Lucero, Vladimir Robles-Bykbaev and María Fernanda Mena-Salcedo
10:20 - 10:40	158	Developing an Implementation Model and Architecture Standard Digital ID	Chadwick Carreto Arellano, Manuel Alejandro Diaz Casco and Blanca Esther Carvajal Gamez
10:40 - 11:00	116	Features combination for gender recognition on Twitter users	Daniela Fernández, Daniela Moctezuma and Oscar S. Siordia
11:00 - 11:20	110	Comparison of Time Series Forecasting Techniques with respect to Tolerance to Noise	Juan J. Flores, Felix Calderon Solorio, Jose Rafael Cedeño Gonzalez, Jose Ortiz Bejar and Rodrigo Lopez Farias
11:20 - 11:40	134	Predictive Power Control Strategy for a Grid-Connected 2L-VSI with Fixed Switching Frequency	Federico Gavilan Amarilla, David Caballero Morilla, Edgar Maqueda, Raul Gregor Recalde, Jorge Rodas Benitez, Sergio Toledo Gallardo, Marco Rivera Abarca and Ismael Araujo-Vargas

THURSDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Renewable Energy	Venue: Afrodita B	Chair: Dr. Fernando Ornelas-Tellez	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	30	A comparative study of the application of FACTS devices in wind power plants of the southeast area of the Mexican electric system	Omar Beltrán, Rafael Peña, Juan Segundo and Eduard Muljadi
10:20 - 10:40	69	APPLIED HORIZONTAL AND VERTICAL GEOTHERMAL HEAT EXCHANGER WITH HEAT PUMP SYSTEM TO PROVIDE AIR CONDITIONING FOR AN ACADEMIC FACILITY IN MEXICO	Daniel Alcantar Martínez, Oskar Javier González Pedraza, Crisanto Mendoza Covarrubias, J. Jesús Pacheco Ibarra and Jorge Alberto Rangel Arista
10:40 - 11:00	114	Maximum power point tracker based on PFC control scheme	Rodrigo Loera-Palomo, Jorge A. Morales-Saldana, Michel Alejandro Rivero-Corona, Francisco Sergio Sellchopp-Sánchez and Edwing Alberto Moreno-Basaldúa
11:00 - 11:20	41	Improving the Performance of MPPT in a Wind Generation System Using a Wind Speed Estimation by Newton Raphson	Daniel Memije, Oscar Carranza Castillo, Jaime Rodriguez-Rivas and Rubén Ortega
11:20 - 11:40	34	The National Multi-island Smart Energy System in Philippines	Zheng Ma, Joy Dalmacio Billanes and Bo Noerregaard Joergensen
11:40 - 12:00	142	Improved P&O Algorithm for Distributed MPPT PV Configurations	Victor Manuel Tovar Olvera, D. R. Espinoza-Trejo, A. Loredó-Flores and E. Bárcenas

THURSDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Heat Transfer	Venue: Venus	Chair: Dr. Juan Alfonso Salazar Torres	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	10	Design and Testing of Toroidal Coil for Induction Water Heater	Luis Felipe Quevedo Avila, César Mancheno Mancheno, John Morales and Flavio Quizhpi
10:20 - 10:40	61	Modelling a heating-power actuator for a distillation column boiler	Mario Heras Cervantes, Adriana Del Carmen Tellez Anguiano, Juan Anzures Marin, Javier Correa Gomez and Maria Del Carmen Garcia Ramirez
10:40 - 11:00	70	Inverter resonant control by modified SPWM and trapezoidal modulation for induction cooking	Bryan Salvatierra, Kevin Coyago, Juan Inga and Diego Chacón
11:00 - 11:20	161	Numerical Simulation in 3D of a Thermoelectric System by Ohmic Heating	Sixtos Antonio Arreola Villa and Juan Alfonso Salazar Torres
11:20 - 11:40	171	Small-Signal Thermal-Electrical Model for Solid State Lighting System Based on Chip-On Board Technology	Luis Ulises Chávez-Campos, Gerardo Marx Chávez-Campos, Javier Correa-Gómez, Juan Cristobal Camacho-Arriaga, Juan Alfonso Salazar Torres, Mario Alberto García-Herrera and Luis G. Aguilera-Mata

THURSDAY PARALLEL SESSIONS (Time: 12:00 - 13:20)			
Power Systems III	Venue: Artemisa	Chair: Dr. Vicente Torres	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	123	Financial Transmission Rights in Electricity Markets	Christian J. G. Villalobos, Horacio Tovar-Hernández and Guillermo Gutiérrez-Alcaraz
12:20 - 12:40	94	Power Plant Fault Monitoring using Recursive Principal Component Analysis RPCA	Alberto Sanchez, Mauricio Redroban and Omar Aguirre
12:40 - 13:00	47	Program for the detection and diagnosis of broken rotor bars in squirrel-cage motors	Alejandro Villegas, Daniel Ruiz-Vega and Tomás Asiaín-Olivares
13:00 - 13:20	100	Interturn faults detection during transformer energization using wavelet correlation modes	Juan C. Olivares-Galvan, R. Escarela-Perez, Daniel Guillén, Alberto Avalos, Jaime Cerda and Fermin Espino-Cortés

THURSDAY PARALLEL SESSIONS (Time: 12:00 - 13:40)			
Control Systems I	Venue: Diana	Chair: Dr. Alain Manzo Martínez	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	143	Adaptive Reduced-order Identifier applied to the Glucose-Insulin Nonlinear System	Angel Eduardo Villafuerte Nuñez, Febe Jocabed Zavala Mendoza, Fernando Ornelas-Tellez and J. Jesus Rico Melgoza
12:20 - 12:40	147	FPGA Realization of RF-PA Models with Memory Effects based on ANFIS	Jose Cruz Nunez Perez, Jesus Aaron Sillas Luna, José Ricardo Cárdenas Valdez, José Alejandro Galaviz Aguilar, Esteban Tlelo-Cuautle, Carlos Edgar Vazquez Lopez and Leonardo Trujillo Reyes
12:40 - 13:00	144	Following the Path Towards Intelligently Connected Devices for On-line, Real-time Cardiac Arrhythmia Detection and Classification	Jose Antonio Gutierrez Gnechchi, Enrique Reyes Archundia, Adriana Del Carmen Tellez Anguiano, Arturo Mendez Patiño and Daniel Lorias Espinoza
13:00 - 13:20	167	Analysis and Design of Resonant Inverter for Ozone Generation	Mario Juarez, Gerardo Vazquez Guzman, Martinez P. Raymundo and Jose M. Sosa
13:20 - 13:40	15	Low Complexity Approach for Controlling a Robotic Arm Using the Emotiv EPOC Headset	Santiago Aguiar, Wilson Yanez and Diego Benitez

THURSDAY PARALLEL SESSIONS (Time: 12:00 - 13:20)			
Computer Vision	Venue: Afrodita A	Chair: Dra. Daniela Moctezuma	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	6	Image Processing Algorithm for Improving the Identification of Patterns on Diptera Wings	Diego Benitez, Alejandra Guerron, Sonia Zapata and Denis Augot
12:20 - 12:40	11	Improving action recognition by selection of features	Carolina Maldonado, Homero Rios and Antonio Marin-Hernández
12:40 - 13:00	40	Background Subtraction Based on Mutual Information	Jesus Miguel Gamboa Aispuro, Ruth Mariela Aguilar Ponce and Jose Luis TecpanecatI Xihuitl
13:00 - 13:20	133	Development of a mobile service robot for classify objects and place them in containers	Adan Garnica, Salvador D. Pelayo, Juan Pelayo and Leonardo Romero

THURSDAY PARALLEL SESSIONS (Time: 12:00 - 13:20)			
Evolutionary Computation	Venue: Afrodita B	Chair: Dr. Mario Graff Guerrero	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	39	Particle Swarm Optimization with Feasibility Rules in Constrained Numerical Optimization. A Brief Review	Vicente-Josué Aguilera-Rueda, María-Yaneli Ameca-Alducin, Efrén Mezura-Montes and Nicandro Cruz-Ramírez
12:20 - 12:40	105	Decomposition of Large-scale Constrained Problems Using a Genetic-based Search	Adan Enrique Aguilar-Justo, Efrén Mezura-Montes, Saber Mohamed Elsayed and Ruhul A. Sarker
12:40 - 13:00	109	Multi-objective Full Model Selection in Temporal Databases: Optimizing Time and Performance	Nancy Pérez Castro, Hector-Gabriel Acosta-Mesa, Efrén Mezura-Montes and Hugo Jair Escalante
13:00 - 13:20	137	EvoDAG: A Semantic Genetic Programming Python Library	Mario Graff, Eric S. Tellez, Sabino Miranda and Hugo Jair Escalante

THURSDAY PARALLEL SESSIONS (Time: 12:00 - 13:20)			
Chaotic Systems	Venue: Venus	Chair: Dr. Esteban Tlelo-Cuautle	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	13	Circuitry realization of a novel simple chaotic generator with signum nonlinearity	Viet-Thanh Pham, Christos Volos and Esteban Tlelo-Cuautle
12:20 - 12:40	138	On Korobov's Admissible Maximum Principle	Abdon Eddy Choque-Rivero and Pedro Luis Castulo Cruz
12:40 - 13:00	35	Analysis and Synthesis Peaucellier Mechanism (Relations among links dimensions)	Javier Calderón, Ignacio Juárez, Juan Anzures, Diego Núñez and Lucía Marquez
13:00 - 13:20	36	Analysis of a Novel Robotic Leg using The Peaucellier Mechanism	Javier Calderón, Ignacio Juárez, Juan Anzures, Diego Núñez and Lucía Marquez

FRIDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Intelligent Agents and Multi-Agent Systems	Venue: Artemisa	Chair: Dr. Jaime Cerda Jacobo	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	24	Intelligent Assistant to Control Home Power Network	Julio Cabrera Hidalgo, María Fernanda Mena Salcedo, Ana María Parra Astudillo and Eduardo Pinos Vélez
10:20 - 10:40	27	Braille Teaching Electronic Prototype	Jorge Andres Aucay Pauta, Eduardo Pinos Velez and Luis Serpa Andrade
10:40 - 11:00	85	Robotic assistant for support in speech therapy for children with cerebral palsy	Vladimir Robles-Bykbaev, Mario Ochoa-Guaraca, Marco Carpio-Moreta, Daniel Pulla-Sanchez, Luis Serpa-Andrade, Martín López-Nores and Jorge García-Duque
11:00 - 11:20	120	XBEE DISTANCE MEASUREMENT THROUGH THE LOG NORMAL SHADOWING MODEL	Enrique Emmanuel Sánchez-Gutiérrez, Alejandro Cervantes-Herrera and Guillermo Ramírez-Prado
11:20 - 11:40	132	Analysis of the results obtained in the General Exit Exam Degree in Computer Science (EGEL-INFO) of the Faculty of Accounting and Administration Tijuana, (UABC) in 10 periods	Hilda Beatriz Ramírez Moreno, Esperanza Manrique Rojas, Nora Del Carmen Osuna Millán, Margarita Ramírez Ramírez, Maricela Sevilla Caro and Bogart Yail Márquez Lobato

FRIDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Control Systems II	Venue: Diana	Chair: Dr. Alain Manzo Martínez	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	86	Exoskeleton Robot Modeling and Fuzzy Logic Control	Salvador Alvarez Zalapa and Roberto Tapia Sánchez
10:20 - 10:40	16	Open Software/hardware Architecture for Advanced Force/Position Control of an Industrial Robot	Luis G. Garcia-Valdovinos
10:40 - 11:00	173	Nonlinear Optimal Control for Reducing Vibrations in Civil Structures using Magnetorheological Dampers	Joaquín Contreras-López, Fernando Ornelas Téllez, Elisa Espinosa Juárez and Yajaira Concha Sánchez
11:00 - 11:20	56	Analysis and Comparison of Distillation Column Models Considering Constant and Variable Relative Volatility	Gilberto Francisco Orozco Hernandez, Baldwin Rainiero Cortes Hernandez, Mario Heras Cervantes, Adriana Del Carmen Tellez Anguiano and Juan Anzures Marin
11:20 - 11:40	22	Design and Simulation of a Fuzzy Controller for Vertical Takeoff and Landing (VTOL) Systems	Marco Carpio-Alemán, Walter Orozco-Tupacyupanqui and Manuel Betancur-Betancur

FRIDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Renewable Energy	Venue: Afrodita	Chair: Dr. Fernando Ornelas Tellez	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	168	Statistical Model for an Energy Harvesting System in Human Powered Applications	Oscar Lobato-Nostroza, Gerardo Marx Chávez-Campos, Rafael Lara-Hernández and Claudia Vianey Bazán-Rodríguez
10:20 - 10:40	38	Portable System for the Calculation of the Sun Position Based on a Laptop, a GPS and Python	Jorge Fonseca-Campos, Leonardo Fonseca-Ruiz and Paola N. Cortez-Herrera
10:40 - 11:00	113	Reactive Power Compensation through Back-to-Back Converter in Type-4 Wind Turbine	Nadia Maria Salgado-Herrera, Aurelio Medina-Rios, Roberto Tapia-Sánchez and Olimpo Anaya-Lara
11:00 - 11:20	75	Characterization of a Horizontal Vaporization Boiler using energy of a pair of friction Steel-Bronze.	Buñay Roman and Serpa-Andrade Luis
11:20 - 11:40	170	Micro-Energy Harvesting System for a H-Type Microbial Fuel Cell based in a Average State-Space Model	Sergio Mendoza-González, Víctor Téllez-Izquierdo, Gerardo Marx Chávez-Campos, Juan Alfonso Salazar-Torres, Javier Correa-Gómez, José Diego Bárrcnas-Torres and Maximiliano Martínez-Orobio

FRIDAY PARALLEL SESSIONS (Time: 10:00 - 11:40)			
Computing III	Venue: Venus	Chair: Dr. Mario Graff Guerrero	
Time	Paper ID	Title	Author(s)
10:00 - 10:20	3	VHDL code generation as state machine from a Data Flow Graph.	Darian Reyes Fernández de Bulnes and Yazmin Maldonado
10:20 - 10:40	21	Analysis of Convex Adaptive Structures and Algorithms for Smart Arrays	Walter Orozco-Tupacyupanqui, Marco Carpio-Alemán, Mariko Nakano-Miyatake and Héctor Pérez-Meana
10:40 - 11:00	60	Consensus-based Formation Control for Multiple Nonholonomic Robots	Abraham Bautista-Castillo, Carlos López-Franco and Emmanuel Nuno
11:00 - 11:20	66	Entropy per Chroma for Cover Song Identification	Antonio Camarena-Ibarrola, Karina Figueroa and Hector Tejeda-Villela
11:20 - 11:40	68	Automatic Evaluation of Music Students from MIDI Data	Jessica Diaz-Estrada and Antonio Camarena-Ibarrola

FRIDAY PARALLEL SESSIONS (Time: 12:00 - 13:00)			
Power Systems IV	Venue: Artemisa	Chair: Dra. Elisa Espinosa Juárez	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	96	Gating Signal Generator Design for MMC with Staircase Modulation	José Alfredo Zaragoza-Hernández
12:20 - 12:40	26	Passive observed-based control of synchronous generator	Jediael Machin, Alexander Loukianov and Jose Manuel Cañedo Castañeda
12:40 - 13:00	45	Model of the Effective Thrust in Propellers for miniature Quadrotors in Hover Mode for Simulation and Control	Francisco J Ruiz-Sanchez

FRIDAY PARALLEL SESSIONS (Time: 12:00 - 13:00)			
Electronics	Venue: Diana	Chair: Dr. Alain Manzo Martínez	
Time	Paper ID	Title	Author(s)
12:00 - 12:20	112	In-wheel brushless DC motor test-bed for control and fault detection	Victor Arturo Maldonado Ruelas, Francisco Javier Villalobos Piña, Ricardo Alvarez Salas, Felipe Pazos Flores and Gustavo Adolfo Sosa Serna
12:20 - 12:40	153	IRIG-B decoder based on FPGA for synchronization in PMUs	Jose Razo-Hernandez, Martin Valtierra-Rodriguez, David Granados-Lieberman, Juan Amezcuita-Sanchez, Luis Morales-Hernandez and Aurelio Dominguez-Gonzalez
12:40 - 13:00	17	Development of a Breathalyzer for Car Drivers	Loth Matheus Barba-Maza and Carlos Sánchez-López