



IEEE Latin America Transactions

APRIL 2016, Volume 14 Issue 4

IEEE Xplore, DOI, ISI, ISSN 1548-0992

REGULAR ISSUE, Electronics, Energy and Computing

Table of Contents

<i>Mirela Sechi Moretti Annoni Notare</i>	1549
Editorial to the Regular Issue Volume 14 Issue 4 April 2016	
<i>Mirela Sechi Moretti Annoni Notare</i>	1553
A New Approximate Closed Solution for Small Dipole Antenna with Method of Moments	
<i>Carlos Ivan Paez Rueda, Roberto Bustamante Miller</i>	1562
A Proposed Wireless System to Real Time Monitoring in Power Transformer	
<i>Josnier Ramos Guardarrama, Raimundo Carlos Silvério Freire, Orestes Hernández Areu</i>	1570
A Smart Switch to Connect and Disconnect Electrical Devices at Home by Using Internet	
<i>Jesús Ebert Giral Sala, Roberto Morales Caporal, Edmundo Bonilla Huerta, Jaime José Rodríguez Rivas, José de Jesús Rangel Magdaleno</i>	1575
An Architecture based on Magnetic Sensors for Fault Detection in Agricultural Implements	
<i>Alexandre dos Santos Roque, Guilherme Schievelbein</i>	1582
Application of the Subspace Identification Method using the N4SID Technique for a Robotic Manipulator	
<i>Ademar Gonçalves Costa Junior, José Antônio Riul, Paulo Henrique Miranda Montenegro</i>	1588
Promediación, Aproximación y Control de Ecuaciones Diferenciales Funcionales (Averaging, Approximation and Control of Functional Differential Equations	
<i>Jesús Aureliano Esquivel Cárdenas, Jorge Adrián Osuna González, Rodolfo Martínez Zúñiga, Juan José Maldonado Ortiz</i>	1594
Calculation of Lightning-Induced Voltages and Currents on the Transformers Courtyard of Tucuruí Hydroelectric Generation Plant Using the Finite-Difference Time-Domain Method	
<i>Ellen Soraia Andrade Melo Luz, Rodrigo Melo e Silva de Oliveira, Péricles Lopes Machado</i>	1600
Development and Experimental Analysis of Optical Fibers with Atomic Vapor of Cesium-133 Embedded for Application in Telecommunications Systems: Sensing	
<i>Kleython José Coriolano Cavalcanti de Lacerda</i>	1612
Development of Optimal Control Systems for Trickling Filter	
<i>José Antonio Tosta Reis</i>	1617
Flow Control for Absorption Chillers Using the Par H ₂ O / LiBr Driven in Recirculation Pumps of Low Power	
<i>Kleber César, Allyson Macário, Carlos Antonio Cabral Dos Santos, Alvaro Ochoa, José Carlos Charamba Dutra</i>	1624
GeOpps-N: Opportunistic Routing for VANET in a Public Transit System	
<i>Miguel Rios</i>	1630
Impedance Plethysmography Detection with Mobile and Concealed Devices	
<i>Óscar Alberto García, José Antonio Pérez, Pablo Samuel Luna, Carlos Alvarado</i>	1638
Implementation of an LC-VCO with Built-in AGC for Oceanographic Radar Applications	
<i>William Toro, Juan Velez, Mauricio Pardo</i>	1645
Nonlinear Neural Model of a Robot Five Degrees of Freedom	
<i>Jose Antonio Riul, Ademar Gonçalves Costa Junior, Paulo Henrique Miranda Montenegro</i>	1652

Novel inteligente Step Voltaje Regulator (SVR for residential electrical connections <i>Diego Arias Cazco, Ramiro Alejandro Robayo Vasco, Leony Ortíz Matos</i>	1656
Real Time QRS Detection Based on Redundant Discrete Wavelet Transform <i>Ernando Arrais Junior, Ricardo Alexandro de Medeiros Valentim, Gláucio Bezerra Brandão</i>	1662
Robot's Weight Distribution Influence on Angular Momentum Produced by a Standing Vertical Jump <i>Alberto Noboru Miyadaira, Marconi Kolm Madrid</i>	1669
Selection of Technologies for Automation: Case Study of a Metal Piece Drilling Process <i>Valdemir Martins Lira, Carlos Eduardo Capovilla</i>	1677
Service Oriented Design Approach for a Precision Agriculture Datalogger <i>Camilo Lozoya, Alberto Aguilar, Carlos Mendoza</i>	1683
Simulation Model and Comparison for Satellite Links in Ku and Ka Bands for Standards-based on DVB-S2 and NS3 <i>Andres Cornejo, Salvador Landeros</i>	1689
State of Art, THD Minimization in Distribution Systems based on Wavelet Transform <i>Santiago Xavier Quel Novillo, Esteban Mauricio Inga Ortega</i>	1698
UAV route planning optimization using PSO implemented on microcontrollers <i>German David Goetz, Ricardo Andrés Velásquez Velez, Juan Sebastián Botero Valencia</i>	1705
Economic effects of Transmission Expansions: The case of the Regulated Contract Market in Chile <i>Javier Bustos, Fernando Fuentes</i>	1711
Economical Feasibility of alternative sources as secondary means for electricity generation in Brazilian gas stations <i>Lucas Feksa Ramos, Cristiane Krüger, Felix Alberto Farret</i>	1717
Evaluation of Luminous Performance and Lifetime of CFL in the Regime of Intermittent Use <i>Emigdio Espinola, Luis Natal, Jose Oliveira</i>	1724
Experimental analysis of a self-excited induction generators operating in parallel with synchronous generators applied to isolated load generation <i>Wagner Eduardo Vanço, Fernando Bento Silva, Felipe Adriano Silva Gonçalves, Eudinei de Oliveira Silva, Carlos Augusto Bissochi Júnior, Luciano Martins Neto</i>	1730
Features of Present Computer Tools for Load Flow Calculation and Experience Acquired with the Improvement of UFUFlow Program <i>M. A. Tamashiro, G. C. Guimarães, A. R. Rodrigues, A. M. B. Silva, D. A. Caixeta, R. V. A. Monteiro</i> ...	1737
Harmonic Distortions on Grid Connected Double Fed Generator: A Review <i>Adolfo Rafael López Núñez, Jesús Darío Mina Antonio, Victor Manuel Cárdenas Galindo, Susana Estefany De León Aldaco, Gabriel Calderón Zavala, Jesús Aguayo Alquicira</i>	1745
Hierarchy of the Energy Resources Using Data Envelopment Analysis for Energy Planning <i>Miguel Edgar Morales Udaeta, Marcio Andrey Roselli, Jose Aquiles Baesso Grimoni, Cláudio Elias Carvalho</i>	1752
Impact of distributed generation technology and location on power system voltage stability <i>Jorge Henrique Angelim, Carolina Mattos Affonso</i>	1758
Influence of Load in Performance of the Static Excitation Control of Synchronous Generator <i>Fernando Bento Silva, Wagner Eduardo Vanço, Felipe Adriano da Silva Gonçalves, Carlos Augusto Bissochi Júnior, João Paulo Amaral Duarte, Geraldo Caixeta Guimarães</i>	1766
Investment Valuation of Energy Storage Systems in Distribution Networks considering Distributed Solar Generation <i>Mauricio Samper, Daniela Flores, Alberto Vargas</i>	1774
Matched Channel Allocation for Advanced Metering Infrastructure based on Cognitive Mobile Virtual Network Operator <i>Esteban Inga, Roberto Hincapié</i>	1780
Meters allocation in distribution systems based on the load importance <i>Albérico Antônio Pires da Silva Junior, Lucimário Gois de Oliveira Silva, Adiel Teixeira de Almeida Filho</i> ..	1786
Physical Concepts Related to Harmonics Produced by Wind Turbines Operation <i>Alex Reis, José Carlos Oliveira</i>	1792
Pore-scale modeling of oil mobilization trapped in a square cavity <i>Joelson Kalil Coelho, Mariana Dias Pena, Oldrich Joel Romero</i>	1800
Probabilistic assessment of Wind Farm Disconnection by Power Grid Failures <i>Mariano Tomás Anello, Alberto Del Rosso</i>	1808

Reactive Power Compensation in a Photovoltaic Grid Tie System, Using a Single-Phase Bidirectional High Frequency link Converter <i>Obed Enrique Ochoa Robles, José Antonio Beristáin Jiménez, Javier Pérez Ramírez</i>	1816
The Influence of Compact Fluorescent Lamps in Power Measurement and Billing <i>Roberto Perillo Barbosa da Silva, Vinicius Henrique Farias Brito, Etiane Oliveira Ponciano de Carvalho, Matheus Martins David, Mateus Siqueira Quinalia, Luiz Carlos Pereira da Silva</i>	1822
Using Onion Diagram for the Reduction of Water and Energy in Cooling Systems <i>Jesus Martinez Patiño, Fernando Ireta Moreno, Jose Merced Lozano Garcia, Martin Piccón Núñez, Carlos Rubio Maya</i>	1829
A Body Sensor Network Simulation Platform for Medical Applications <i>Roberto Vito Rodrigues Filho, Renato Freitas Bulcão Neto, Iwens Gervásio Sene Júnior</i>	1835
A Method with Paraconsistent Partial Differential Equation used in Explicit Solution of one-dimensional Heat Conduction <i>João Inácio Da Silva Filho, Clovis Misseno da Cruz</i>	1842
A Solution for Detection and Control For Congested Roads Using Vehicular Networks <i>Rodolfo Meneguette, Geraldo Filho, Luiz Bittencourt, Jo Ueyama, Leandro Villas</i>	1849
An approach for automatic segmentation of thermal imaging in Computer Aided Diagnosis <i>Rafael Souza Marques, Aura Conci, María G. Pérez, Víctor H. Andaluz, Tatiana M. Mejía</i>	1856
An Efficient New Scheme of Fitness Evaluation in Genetic Programming using the R Language <i>Carlos Martinez, Juan David Velasquez</i>	1866
Combination of Box-Jenkins and MLP/RNA models for forecasting <i>William Jacobs, Adriano Mendonça Souza, Roselaine Ruviaro Zanini</i>	1870
Comparison of Standard Discretization with a New Method for Quantitative Association Rules <i>Juan Luis Domínguez Olmedo, Jacinto Mata Vázquez</i>	1879
Criptoanalysis Outwit using Context Sensitive Grammars <i>Flávio Luis de Mello, José Antonio Moreira Xexéo, Roberto Lins de Carvalho</i>	1886
Cross-platform Mobile Development Approaches: A Systematic Review <i>Tatiana Freitas Bernardes, Mario Yoshikazu Miyake</i>	1892
Designing a Human Supervisory Control System for Smart Grid <i>David Díez, Rosa Romero, Sara Tena</i>	1899
Detección de la pupila mediante el método de Kåsa <i>Juan Luis Díaz de León Santiago, Rafael Rojas Hernández, Valentín Trujillo Mora, Julio César Salgado Ramírez, Arturo Gamino Carranza</i>	1906
Expert Systems Applied to Plant Disease Diagnosis: Survey and Critical View <i>Jayme Garcia Arnal Barbedo</i>	1910
Extending a Metamodel for Adaptive Programs: Specifying Adaptive Functions <i>Sergio Roberto Mello Canovas, Carlos Eduardo Cugnasca</i>	1923
Inductive Visual Miner Plugin Customization for the Detection of Eventualities in the Processes of a Hospital Information System <i>Arturo Orellana García, Osvaldo Ulises Larrea Armenteros, Yosbani Enrique Pérez Ramírez, Damián Pérez Alfonso</i>	1930
Interconnecting Wireless Sensor Networks with the Internet Using Web Services <i>Daniel Adorno Gomes, David Bianchini</i>	1937
Numerical Analysis of a Novel Optical Filter for DWDM Systems <i>João Victor Marangoni, Marcos Sergio Gonçalves</i>	1943
Octopus: A gamification model to aid in ubiquitous care of chronic diseases <i>Cassius Ariovaldo Paim, Jorge Luis Victória Barbosa</i>	1948
Optimized Parameter Extraction Method for Photovoltaic Devices Model <i>María Paula Cervellini, Noelia Inés Echeverría, Pablo Daniel Antoszczuk, Rogelio Adrián García Retegui, Marcos Alan Funes, Sergio Alejandro González</i>	1959
People Detection and Tracking in Low Frame-rate Dynamic Scenes <i>Diego Luis Siqueira, Alexei Manso Correa Machado</i>	1966
Simulation via Artificial Neural Networks and Mechanic Behavior Analysis of Steel AISI 430 <i>Mariana Presoti, Flávio Vinicius Cruzeiro Martins, Elizabeth Fialho Wanner, Wellington Lopes</i>	1972

Stochastic optimal allocation of reactive power banks for system loss minimization <i>Sebastian Soto, Victor Hinojosa</i>	1980
Structural equation model for studying the mobile-learning acceptance <i>Alejandro Valencia Arias, Gabriel González Uribe, Mónica Castañeda Riascos</i>	1988
Support at Decision in Electrical Systems of subtransmission through selection of Topologies by a Paraconsistent Simulator <i>João Inácio Da Silva Filho, José de Melo Camargo, Marcos Rosa dos Santos, Alexandre Shozo Onuki, Mauricio Conceição Mario, Luís Fernando Pompeo Ferrara, Dorotéa Vilanova Garcia, Jorge Manuel Correia Pereira, Alexandre Rocco</i>	1993
Telemonitoring System for Patients with Chronic Kidney Disease Undergoing Peritoneal Dialysis <i>Joseph Rodiz Cuevas, Eduardo López Domínguez, Yesenia Hernández Velázquez</i>	2000
Verification and Validation Model for Short Serious Game Production <i>Arturo Barajas Saavedra, Francisco Javier Alvarez Rodriguez, Jaime Muñoz Arteaga, Rene Santaolaya Salgado, Cesar Alberto Collazos Ordoñez, Julio Ariel Hurtado Alegria</i>	2007
What Would They Say? Predicting User's Comments in Pinterest <i>Juan Carlos Gomez, Tatiana Tommasi, Susana Zoghbi, Marie Francine Moens</i>	2013
Wich Probabilistic Roadmap method should be used by a robot in an actual environment? An analysis of the main methods through simulations <i>Bruno Palma, Cabral Lima, Wouter Caarls, Danilo Vettorazzi</i>	2020