

IEEE-URUCON 2017 - Program
Montevideo – Uruguay, 23-25 October 2017.
Hotel NH Montevideo Columbia, Rambla Gran Bretaña 473.

- Day 1 -

IEEE-URUCON Program - Monday, 23th October 2017			
8:15 – 9:00	IEEE-URUCON Registration Transportation to UTE is available at the hotel lobby.		
9:00 – 10:00	Venue: UTE building, Paraguay 2431, see map and details. Keynote - Barry Shoop Innovation as an Ecosystem		
10:00 – 11:00	Venue: UTE building, Paraguay 2431, see map and details. Mesa Discusión		
11:00 – 12:00	Transportation back to NH Hotel, IEEE-URUCON Registration		
12:00 – 13:00	Lunch		
13:00	Opening Ceremony		
13:10 – 14:10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;">Keynote</td> <td style="text-align: center; width: 50%;">Rich Chernock Next Generation Television</td> </tr> </table>	Keynote	Rich Chernock Next Generation Television
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14:10 - 14:30	Coffee Break		
14:30 – 16:45	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;">Industry Session A</td> <td style="text-align: center; width: 50%;">Industry Session B</td> </tr> </table>	Industry Session A	Industry Session B
Industry Session A	Industry Session B		
16:45 - 17:00	Coffee Break		
17:00 – 17:50	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;">Rodrigo Palma El desafío de la energía solar para la región - Creación de una Comunidad Solar</td> <td style="text-align: center; width: 50%;">Eric Wandel Directional Pattern Design of VHF and UHF Antennas for FM and TV Using Computer Modeling</td> </tr> </table>	Rodrigo Palma El desafío de la energía solar para la región - Creación de una Comunidad Solar	Eric Wandel Directional Pattern Design of VHF and UHF Antennas for FM and TV Using Computer Modeling
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18:00	Welcome Cocktail		

- Day 2 -

IEEE-URUCON Program - Tuesday, 24th October 2017			
8:30 – 9:00	IEEE-URUCON Registration		
9:00 – 10:00	Nelson Luis Saldanha da Fonseca Networking in the Big Data Era		
10:00 – 11:00	<table border="1"> <tr> <td>Session I-A Power Control</td> <td>Session I-B Biomedical Engineering</td> </tr> </table>	Session I-A Power Control	Session I-B Biomedical Engineering
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11:00 – 12:00	Coffee break IEEE URUCON Poster Session		
12:00 – 13:00	<table border="1"> <tr> <td>Session II-A Photovoltaic Power Generation</td> <td>Session II-B Software & Applications</td> </tr> </table>	Session II-A Photovoltaic Power Generation	Session II-B Software & Applications
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13:00 – 14:20	Lunch		
14:20 – 15:20	<table border="1"> <tr> <td>Juan José Encina Situación actual del sector eléctrico paraguayo y perspectivas al 2030</td> <td>Juan José Cazila Internet of Things</td> </tr> </table>	Juan José Encina Situación actual del sector eléctrico paraguayo y perspectivas al 2030	Juan José Cazila Internet of Things
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16:20 – 16:40	Coffee break		
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	Ciudad Vieja Walking Tour (please schedule)		
20:30	Gala Dinner		

- Day 3 -

IEEE-URUCON Program - Wednesday, 25 th October 2017			
8:30 – 9:00	IEEE-URUCON Registration		
9:00 – 10:00	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; background-color: #90ee90;"> Maurizio Murrioni Bridging Broadcast, Broadband and Cellular Communications </td> <td style="width: 50%; text-align: center; background-color: #90ee90;"> Daniela López De Luise Video Games and Gamification Engineering </td> </tr> </table>	Maurizio Murrioni Bridging Broadcast, Broadband and Cellular Communications	Daniela López De Luise Video Games and Gamification Engineering
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16:40 – 17:00	Coffee Break		
17:00	Closing Ceremony		

Tuesday 24th October

10:00 – 11:00 URUCON – Session I-A - Power Control

- 10:00 ID#2 **“FO Position Control of a DC Motor - An Experimental Comparative Study”**
Arturo Rojas-Moreno, Brendalid Apaza-Palomino
- 10:20 ID#17 **“Análises Estática e Dinâmica da Atuação do Controle de Tensão de Geradores Síncronos na Estabilidade de Tensão”**
Ricardo Prada, Marcos Vinícius Pimentel Teixeira, Jorge Luiz Araújo Jardims
- 10:40 ID#96 **“Rotor Speed Control of a Single Shaft Heavy Duty Gas Turbine in a Peruvian Power Plant”**
Julius Germain Diestra Cabrera, Manuel Perez, Rubén Cornejo, Alejandro Galarza

10:00 – 11:00 URUCON – Session I-B - Biomedical Engineering

- 10:00 ID#8 **“Desarrollo e implementación de interfaz electrónica entre el brazalete Myo y prótesis de miembro superior impresa en 3D”**
José Benítez, Mateo Acosta, Juan Mongelos
- 10:20 ID#50 **“Study on Spike-and-wave detection in epileptic signals using t-location scale distribution and the nearest neighbors’ classifier”**
Antonio Quintero-Rincón, Valeria Muro, Carlos D’Giano
- 10:40 ID#70 **“MDi: Acquisition, Analysis and Data Visualization System in Healthcare”**
Federico Bellini, Juan Gutierrez-Zorrilla, Luis Anza, Enrique Ferreira, Lee G. Deneault, Gabriel Vanerio, a

11:00 – 12:00 URUCON Poster Session

- ID#9 **“New Design of T-type Power Divider Network in Microstrip Technology for C-Band Downlink”**
Raul Haro, Sebastián Ochoa, Patricio Vizcaino and Diego Benitez
- ID#18 **“Diseño de Métricas Derivadas de Teclado y Mouse para la Medición del Nivel de Aprendizaje”**
Diego Esteban Vargas Ligarreto and Daniela Lopez De Luise
- ID#20 **“The Use of Rayleigh’s Distribution to Modelate the Multipath Channel Fading Parameters with FIR Filters”**
Claudio B. Silva and Horacio T. Santos
- ID#27 **“Integration and Intelligence for Sustainability - I2S An overview of the I2S Intelligent Building's concept from the Campos dos Goytacazes Innovation Hub campus”**
Vitor B. Ribeiro, Rogerio A. De Carvahó, Leonardo De S. Cavadas and William Da S. Vianna
- ID#42 **“Design of Dual-Antenna and Dual-Band GPS Receiver for CubeSats”**
Santiago Rodríguez, Ramón López La Valle, Gerardo Ludovico Puga, Javier Garcia and Pedro Agustín Roncagliolo,
- ID#44 **“Neural Control to Simulate 4 Autonomous Navigation Behaviors in a Differential-Drive Mobile Robot”**
Juan Vega-Oliver and Pedro Huamaní-Navarrete
- ID#107 **“Diagnóstico de Defeito em Transformadores de Potência pela Análise de Gases dissolvidos”**
Helena M. Wilhelm, Paulo O. Fernandes, Leandro G. Feitosa, Geovana C. dos Santos, Aurora Namie, Claudio A. Galdeano, Daniel Aroucha Filho, Arley Mar, Marcelo Ribeiro
- ID#7 **“Sistema Biomédico no Invasivo para Evaluación Fisiológica y Prediagnóstico de Condiciones de Anemia, Hipoxemia e Hipertensión”**
Elizabeth Karina Zavala Vega, Leevan Bautista Enciso, José Máximo Alvarado Oyola and Mario Chauca
- ID#59 **“An Educational Methodology for Learning Digital Signal Controllers (DSC’s) through Visual Algorithms”**
Jonathan Alvarez Ariza
- ID#71 **“Scaling Up Energy Itegration in South America Based on Lessons Learned from Binational Hydropower Plants”**

Victorio Oxilia, Eduardo Ortigoza and Richard Ríos

ID#75 **“AC Components Insertion into Rotor of Synchronous Generator for Damping of Harmonics on Current in Bar”**
Leovir Cardoso Aleluia Junior, Aylton Alves, Alana Magalhães, Alan Silva, Wesley P. Calixto, Calebe Abrenhosa Matias, Elder Domingues and Jose Luiz Domingos

ID#82 **“Understanding the Beginning of Diabetic Nephropathy with Electric Fields and Repulsion Forces Around the Renal Glomerulus in the Human Kidney”**
Huber Nieto-Chaupis

ID#100 **“IoT Architecture for Multisensorial Media”**
Lana Jalal, Vlad Popescu and Maurizio Murrone

ID#34 **“Distribution networks automatic generation tool to perform statistical validations of technical planning methodologies”**
Christofer G. Bernardo, Clainer B. Donadel, Jussara F. Fardin and Lucas F. Encarnação

ID#6 **“Development and Application of a Comprehensive Small Signal Stability Package Embedded in an Automatic Disturbance Analysis Multi-Agent System”**
Jonas Pesente, Felipe Santos, Rodrigo Ramos and Miguel Moreto

12:00 – 13:00 URUCON – Session II-A - Photovoltaic Power Generation

12:00 ID#24 **“Analysis of the Capacity of Electricity Production Through Photovoltaic Panels Installation on the Roofs of the IFG - Câmpus Águas Lindas”**
Kristinne Silva, José Luis Domingos, Aylton José Alves, Elder Geraldo Domingues, Wesley Pacheco Calixto, Luiz Guilherme Gonzaga Borba Ferreira

12:20 ID#43 **“Asynchronous Non- Inverter Buck- Boost DC to DC Converter for Battery Charging in a Solar MPPT System”**
Carlos Lozano-Espinosa

12:40 ID#49 **“Technical Analysis of the application of water in the improvement of the electrical efficiency in photovoltaic panels”**
Licínio Moraes Santos, Aylton José Alves, Dayane Martins Salles, Calebe Abrenhosa Matias, José Luis Domingos, Elder Geraldo Domingues and Wesley Pacheco Calixto

12:00 – 13:00 URUCON – Session II-B - Software & Applications

12:00 ID#33 **“Fuzzy Harmonic Systems: Ability for Traffic Risk Measurement in Android”**
Walter Bel, Daniela López De Luise and Ernesto Ledesma

12:20 ID#53 **“Linear-Feedback Shift Register Seed Determination for Memory-Constrained Embedded Systems”**
Gerardo Ludovico Puga

12:40 ID#98 **“Code Recognition by means of Improved Distance and tuned Dictionary”**
Marcos Tournoud, Daniela López De Luise, Andrés Pascal, Claudia Alvarez, Pablo Pescio and Ben Raúl Saad

15:20 – 16:20 URUCON – Session III-A - Power Measurements

15:20 ID#25 **“Esfuerzos electrodinámicos producidos por un cortocircuito. Determinación y Medición oscilográfica de los esfuerzos en los apoyos de un juego de barras”**
Carlos Arrojo, Andres Martinez Del Pezzo and Horacio Frene

15:40 ID#72 **“A Contact Resistance Measurement Setup for the Study of Novel Contacts”**
Rafael Puyol and Sebastian Suarez

16:00 ID#93 **“Errors of Capacitive-Voltage-Transformers Used for Harmonic Measurements”**
Marcelo Brehm, Gonzalo Aristoy, Leonardo Trigo, Alejandro Santos and Daniel Slomovitz

15:20 – 16:20 URUCON – Session III-B - Control & Robotics I

15:20	ID#86	“Fast Response One Cycle Control Strategy for APF” <i>Aluisio Alves de Melo Bento and Luís Fernando Corrêa Monteiro</i>
15:40	ID#103	“Indirect Model Predictive Current Control Techniques for a Direct Matrix Converter” <i>Marco Rivera, Usman Nasir, Luca Tarisciotti and Pat Wheeler</i>
16:00	ID#105	“Design and implementation of flight control for an autonomous quadrotor” <i>Rafael Canetti, Matias Tailanian, Santiago Paternain and Rodrigo Rosa</i>

16:40 – 18:00 URUCON – Session IV-A - Power Network Planification

16:40	ID#64	“Coordination of flexible generation and transmission investments under uncertainty” <i>Mario Salomón Arevalo González, Gabriel Fernando Baum Ramos and Gerardo Alejandro Blanco Bogado</i>
17:00	ID#65	“Index for Allocation of Tidal Current Power Plant for Reactive Margin Improvement” <i>Bruno Gomes de Sá, Denisson Queiroz Oliveira and Thiago Campos Gomes</i>
17:20	ID#73	“Guidelines for a Regional Electricity Market Model in the Southern Cone” <i>Richard Rios, Victorio Oxilia, Eduardo Ortigoza and Gerardo Blanco</i>
17:40	ID#77	“Benefits of Optimal Demand Response in Distribution Networks in a Competitive Retail Market” <i>Sebastián Montes de Oca, Pablo Belzarena and Pablo Monzón</i>

16:40 – 18:00 URUCON – Session IV-B - Control & Robotics II

16:40	ID#3	“Real-Time MIMO Nonlinear Adaptive Control of a Translational Manipulator” <i>Arturo Rojas-Moreno and Brendalid Apaza-Palomino</i>
17:00	ID#5	“Development and Application of a Comprehensive Transient Stability Package Embedded in an Automatic Disturbance Analysis Multi-Agent System” <i>Jonas Pesente, Felipe Santos, Rodrigo Ramos and Miguel Moreto</i>
17:20	ID#15	“Short Term Load Forecast Method Using Artificial Neural Network with Artificial Immune Systems” <i>Ricardo Alonso and Alcides Chavez</i>
17:40	ID#48	“Formation Tracking Experiments for Heterogeneous Mobile Robots” <i>Eduardo G. Hernandez-Martinez, Enrique Ferreira, Guillermo Fernandez-Anaya, Pablo Paniagua-Contro and Jose Job Flores-Godoy</i>

Wednesday 25th October

10:00 – 11:00 URUCON – Session V-A - Energy Efficiency

- 10:00 ID#13 **“Analysis of signal processing techniques used for broken bar detection of induction motors”**
Danilo Granda, Diego Arcos-Aviles and Danny Sotomayor
- 10:20 ID#38 **“Energy Efficiency and Renewable Energy: Energy, Economics and Environmental Gains”**
Adriano Faria, Jose Domingos, João Junior, Aylton Alves, Elder Domingues, Wesley Calixto and Luiz Ferreira
- 10:40 ID#79 **“Analysis and Optimization of Energy Resources of the city of Bahía Negra Chaco – PY”**
Richard Rios, Eduardo Ortigoza, Carlos Romero Barrios and Luis Morinigo

10:00 – 11:00 URUCON – Session V-B - Telecomm. & Signal Processing I

- 10:00 ID#26 **“Bayesian Estimators for Cooperative Spectrum Sensing in Cognitive Radio Networks”**
Caio Henrique Azolini Tavares and Taufik Abrão
- 10:20 ID#39 **“Osculating Orbital Elements Estimation for GNSS-based Satellite Navigation”**
Ernesto Mauro López, Jorge Cogo, Javier Gonzalo García and Carlos Horacio Muravchik
- 10:40 ID#41 **“Fabrication and Characterization of a Directional SPIDA Antenna for Wireless Sensor Networks”**
Benigno Rodríguez, Javier Schandy, Juan Pablo González, Leonardo Steinfeld and Fernando Silveira

11:20 – 13:00 URUCON – Session VI-A - Generation

- 11:20 ID#16 **“Active and Reactive Power Regulation in wind turbines based on BDFIG Machines”**
Pablo Troncoso, Ricardo Julian Mantz and Pedro Battaiotto
- 11:40 ID#19 **“Consideraciones para la re-ingeniería de la subestación Dr. Gabriel Terra aplicando tecnología GIS”**
Matias Airala, Andres Calone and Agustin Llanes
- 12:00 ID#46 **“Stand-Alone Hybrid Microgrid for Remote Areas. Topology and Operation Strategy”**
Pedro Battaiotto, Marcelo Cendoya, Graciela Toccaceli and Roberto Vignoni
- 12:20 ID#76 **“Attenuation Methodology for Torque Oscillations in Synchronous Machine”**
Leovir Cardoso Aleluia Junior, Aylton Alves, Alana Magalhães, Alan Silva, Wesley P. Calixto, Jose Luiz Domingos, Elder Domingues and Calebe Abrenhosa Matias
- 12:40 ID#56 **“Implementation of an Energy Harvesting System by Piezoelectric Elements Exploiting the Human Footsteps”**
Johnny Nelson Savina Quispe and Alex Cartagena Gordillo

11:20 – 13:00 URUCON – Session VI-B - Electronics & Sensors

- 11:20 ID#4 **“Air Quality Monitoring System Within Campus by Using Wireless Sensor Networks”**
Roman Lara, Rodolfo Gordillo, Diego Benítez, Marcelo Márquez and Patricia Meneses
- 11:40 ID#11 **“Smart Home Energy Planning Using IoT and the Cloud”**
Emilio Orsi and Sergio Nesmachnow
- 12:00 ID#40 **“Estimación de la Disponibilidad Forrajera Mediante el Procesamiento de Imágenes Obtenidas por un UAV”**
Andrés Pías, Juan Cardelino and Gastón Nottle
- 12:20 ID#51 **“Atomizador Inteligente Application of phytosanitarios in Fruit Trees According to Tree’s Electronic Analysis”**
Gabriel Vicente, Ruben Deleon, Diego Medina, Matias Miguez and Roberto Zoppolo
- 12:40 ID#101 **“A Battery Powered RTU: GPRS vs 3G Comparison”**
Juan Pablo Becoña, Ana Sofía Pereira, Cristian Vazquez and Alfredo Arnaud

15:00 – 16:20 URUCON – Session VII-A - Power Topics

- 15:00 ID#28 **“Improvement on Energy Trade Capacity for Asynchronous Power System by Application of Hybrid Multi-infeed Direct Current Transmission System”**
Hans Cardenas Iparraguirre, Lei Zhang and Julien Noel
- 15:20 ID#63 **“Application of a Three-Phase Load Estimation in a Real Distribution Feeder”**
Luana L. Avelino, Julio A. D. Massignan, Joao B. A. London Jr. and Alexandre V. Oliveira
- 15:40 ID#74 **“Analyzing energy storage system for energy arbitrage”**
Diego Coronel, Enrique Buzarquis and Gerardo Blanco
- 16:00 ID#87 **“Optimal Power Flow Solution Including the Synchronous Generator Capability Curve Constraints with a Convex Relaxation Method”**
Italo Fernandes, Vicente Leonardo Paucar and Osvaldo Saavedra,
- 16:20 ID#104 **“Bilateral Intercomparison of a 50 pF, 400 kV standard capacitor between INTI and UTE – Summary”**
Daniel Slomovitz, Marcelo Brehm, Daniel Izquierdo, Carlos Faverio, José Luis Casais and Marcelo Cazabat

15:00 – 16:40 URUCON – Session VII-B - Telecomm. & Signal Processing II

- 15:00 ID#47 **“Route Reflection topology planning in service provider networks”**
Viviana Solla, Gabriel Jambrina and Eduardo Grampin
- 15:20 ID#52 **“The ISDB-T Multiplex Frame Pattern Explained”**
Pablo Flores and Federico Larroca
- 15:40 ID#83 **“Experiences on the Quality of Education Assessment in an Electrical and Telecommunications Engineering Program in Lima City”**
Huber Nieto-Chaupis
- 16:00 ID#30 **“Modeling and simulation of phase-locked loops (PLL) microwave generators using Matlab/Simulink® basic blocks”**
Celso Gutierrez-Martinez
- 16:20 ID#58 **“Scalability testing of legacy MPLS-based Virtual Private Networks”**
Gustavo López and Eduardo Grampin