

2019 Argentine Conference on Electronics (CAE 2019)

**Mar del Plata, Argentina
14 – 15 March 2019**



**IEEE Catalog Number: CFP19S41-POD
ISBN: 978-1-7281-1405-7**

**Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP19S41-POD
ISBN (Print-On-Demand):	978-1-7281-1405-7
ISBN (Online):	978-1-7281-1404-0

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

Influence of Oscillator Topology on Fault Sensitivity in Oscillation Based Testing (OBT) of OTAs	1
<i>Tinus Stander, Pablo Petrashin, Luis Toledo, Walter Lancioni, Carlos Vazquez and Fortunato Carlos Dualibe</i>	
Improved cordic angle computation for RF applications using an autorange circuit	6
<i>Guillermo Jaquenod</i>	
Power converter topology for conditioning a fuel cells battery voltage	9
<i>Adrian Gonnet, Sebastian Gomez Jorge, Claudio Busada and Jorge Solsona</i>	
All-Digital High-Resolution PWM With a Wide Duty-Cycle Range	15
<i>Juan Ignacio Morales, Fernando Chierchie, Pablo Mandolesi and Eduardo Paolini</i>	
A Robotic Grasping Method using ConvNets	21
<i>Luis Avila, Elio Ogas, Guillermo Larregay and Daniel Moran</i>	
Integrated ultra-low power precision rectifiers for implantable medical devices	27
<i>Joel Gak, Matias Miguez, Alfredo Arnaud and Emilio Alvarez</i>	
Chaotic Compressed Sensing System for 16x sub-Nyquist Signal Reconstruction	31
<i>Mariano L. Acosta, Maximiliano Antonelli and Luciana De Micco</i>	
Novel time-domain CMOS temperature sensor for passive RFID Tag	37
<i>Martín Di Federico and Paola Ceminari</i>	
Optimal Filter Taking into Account the Charge Transfer Characteristic in CCD Readout	41
<i>Pedro Querejeta Simbeni, Guillermo Fernandez Moroni, Fernando Chierchie, Miguel Sofo Haro, Angel Soto, Leandro Stefanazzi, Gustavo Cancelo, Juan Estrada and Eduardo Paolini</i>	
Antenna Coupling and Out of Band Interference Effects on a High Precision GNSS Receiver	47
<i>Ramón López La Valle, Javier García and Pedro Agustín Roncagliolo</i>	
Performance comparison of Precise Point Positioning using real-time oriented GNSS products	52
<i>Ernesto Mauro López, Santiago Rodríguez, Javier Garcia and Carlos Muravchik</i>	
Mimicking Spike-Timing-Dependent Plasticity with Emulated Memristors	58
<i>Agustin Cisternas Ferri, Alan Rapoport, Pablo Ignacio Fierens and German Agustin Patterson</i>	
High Gain Flatness Discrete Low Noise Amplifier for 3 to 5 GHz UWB operation	65
<i>Pablo Gamez, Andres Altieri and Cecilia Galarza</i>	
Design of discrete-time current controllers for induction motor drives based on an individual channels analysis approach	70
<i>Luis Esteban Venghi, Facundo Aguilera, Pablo Martín de la Barrera and Cristian Hernán De Angelo</i>	
Injection Measurements and Simulation for a Floating Gate MOSFET Designed for Radiation Measurements	76
<i>Sebastián Carbonetto, Juan Cruz Suárez Martene, Mariano Garcia Inza and Adrian Faigon</i>	
Peltier based Temperature Controller for MOS Dosimeter Characterization	82
<i>Rafael Garcia Cozzi, Sebastián Carbonetto and Adrian Faigon</i>	

Low Threshold Acquisition Controller for Skipper Charge Coupled Devices	86
<i>Guillermo Fernandez Moroni, Fernando Chierchie, Angel Soto, Miguel Sofo Haro, Leandro Stefanazzi, Juan Estrada, Gustavo Cancelo, Javier Tiffenberg, Ken Treptow, Neal Wilcer, Ted Zmuda and Eduardo E. Paolini</i>	
Parallelism Analysis for a Multi-core Speech Recognition Architecture	92
<i>Alejandro Pasciaroni, Pedro Julian and Andreas Andreou</i>	
Memory based computation core for nonlinear neural operations	98
<i>Martin Villemur, Gaspar Tognetti and Pedro Julian</i>	