

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I: REGULAR PAPERS

A PUBLICATION OF THE IEEE CIRCUITS AND SYSTEMS SOCIETY



WWW.IEEE-CAS.ORG

OCTOBER 2016

VOLUME 63

NUMBER 10

ITCSCH

(ISSN 1549-8328)

REGULAR PAPERS

Analog and Mixed Mode Circuits and Systems

An Efficient Switched-Capacitor DC-DC Buck Converter for Self-Powered Wearable Electronics	1557
. <i>D. Kilani, M. Alhawari, B. Mohammad, H. Saleh, and M. Ismail</i>	
A Pseudo Single-Stage Amplifier With an Adaptively Varied Medium Impedance Node for Ultra-High Slew Rate and Wide-Range Capacitive-Load Drivability.	1567
. <i>S.-W. Hong and G.-H. Cho</i>	
An Ultra-Wideband Digitally Programmable Power Amplifier With Efficiency Enhancement for Cellular and Emerging Wireless Communication Standards	1579
. <i>L. Albasha, C. Clifton, Y. Jingu, A. Lawrenson, H. Motoyama, S. Bensmida, K. A. Morris, and K. Kohama</i>	
A 400 Mb/s~2.5 Gb/s Referenceless CDR IC Using Intrinsic Frequency Detection Capability of Half-Rate Linear Phase Detector	1592
. <i>S. Byun</i>	
Time-of-Arrival Measurement Using Adaptive CMOS IR-UWB Range Finder With Scalable Resolution	1605
. <i>T. H. Jin, H. G. Han, and T. W. Kim</i>	
A 12-Bit 10 MS/s SAR ADC With High Linearity and Energy-Efficient Switching	1616
. <i>S. Liu, Y. Shen, and Z. Zhu</i>	
An Embedded Passive Gain Technique for Asynchronous SAR ADC Achieving 10.2 ENOB 1.36-mW at 95-MS/s in 65 nm CMOS.	1628
. <i>J.-W. Nam and M. S.-W. Chen</i>	
A Nonuniform Sampling ADC Architecture With Reconfigurable Digital Anti-Aliasing Filter	1639
. <i>T.-F. Wu, S. Dey, and M. S.-W. Chen</i>	

Digital Circuits and Systems and VLSI

Novel Boosted-Voltage Sensing Scheme for Variation-Resilient STT-MRAM Read	1652
. <i>Q. K. Trinh, S. Ruocco, and M. Alioto</i>	
Dynamic Reconfigurable Ternary Content Addressable Memory for OpenFlow-Compliant Low-Power Packet Processing	1661
. <i>T.-S. Chen, D.-Y. Lee, T.-T. Liu, and A.-Y. Wu</i>	
New Low Glitch and Low Power DET Flip-Flops Using Multiple C-Elements.	1673
. <i>S. Lapshev and S. M. R. Hasan</i>	
A Simple and Reliable System to Detect and Correct Setup/Hold Time Violations in Digital Circuits.	1682
. <i>R. Abdollahi, K. Hadidi, and A. Khoei</i>	

(Contents Continued on Back Cover)



<i>Signal Processing</i>	
A Power and Area Efficient Ultra-Low Voltage Laplacian Pyramid Processing Engine With Adaptive Data Compression	<i>S. M. A. Zeinolabedin, J. Zhou, and T. T.-H. Kim</i> 1690
Analysis and Optimization of Product-Accumulation Section for Efficient Implementation of FIR Filters	<i>X. Lou, Y. J. Yu, and P. K. Meher</i> 1701
Distributed Federated Kalman Filter Fusion Over Multi-Sensor Unreliable Networked Systems.	<i>Z. Xing and Y. Xia</i> 1714
High-Accuracy Compressed Sensing Decoder Based on Adaptive (ℓ_0, ℓ_1) Complex Approximate Message Passing: Cross-layer Design	<i>L. Zheng, Z. Wu, M. Seok, X. Wang, and Q. Liu</i> 1726
A New Representation of FFT Algorithms Using Triangular Matrices	<i>M. Garrido</i> 1737
<i>Computer Aided Design and Electronic Design Automation</i>	
A Systematic Study of ESD Protection Co-Design With High-Speed and High-Frequency ICs in 28 nm CMOS	<i>F. Lu, R. Ma, Z. Dong, L. Wang, C. Zhang, C. Wang, Q. Chen, X. S. Wang, F. Zhang, C. Li, H. Tang, Y. Cheng, and A. Wang</i> 1746
System Design for Direct RF-to-Digital $\Delta\Sigma$ Receiver	<i>M. T. Nguyen, C. Jabbour, S. M. Homayouni, D. Duperray, P. Triaire, and V. T. Nguyen</i> 1758
<i>Control Theory and Systems</i>	
Structural Controllability of Temporally Switching Networks.	<i>B. Hou, X. Li, and G. Chen</i> 1771
Information for Authors	1782
