

2018 Index

IEEE Transactions on Circuits and Systems I: Regular Papers

Vol. 65

This index covers all technical items — papers, correspondence, reviews, etc. — that appeared in this periodical during 2018, and items from previous years that were commented upon or corrected in 2018. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

AUTHOR INDEX

A

- Aamir, S.A.**, Stradmann, Y., Muller, P., Pehle, C., Hartel, A., Grubl, A., Schemmel, J., and Meier, K., An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture; *TCSI Dec. 2018* 4299-4312
- Abbasalizadeh, S.**, and Miari-Naimi, H., Phase Transition Analysis of Dual-Mode Standing-Rotary Traveling-Wave Oscillator; *TCSI Aug. 2018* 2534-2546
- Abbasalizadeh, S.**, and Miari-Naimi, H., A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration; *TCSI Sept. 2018* 2917-2928
- Abdulslam, A.**, Mohammad, B., Ismail, M., Mercier, P.P., and Ismail, Y., A 93% Peak Efficiency Fully-Integrated Multilevel Multistate Hybrid DC-DC Converter; *TCSI Aug. 2018* 2617-2630
- Abidi, A.A.**, see Iizuka, T., *TCSI April 2018* 1157-1173
- Abu Khater, M.**, see Wu, Y., *TCSI July 2018* 2161-2168
- Accarino, C.**, see Giagkoulovits, C., *TCSI Sept. 2018* 2821-2831
- Acharyya, A.**, see Vala, C.K., *TCSI Feb. 2018* 606-617
- Adhikary, A.**, Choudhary, S., and Sen, S., Optimal Design for Realizing a Grounded Fractional Order Inductor Using GIC; *TCSI Aug. 2018* 2411-2421
- Adrian, V.**, see Cui, K., *TCSI Jan. 2018* 394-405
- Afridi, S.S.**, see Asghar, S., *TCSI Nov. 2018* 3628-3638
- Afroz, S.**, and Koh, K., W-Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator; *TCSI July 2018* 2070-2082
- Agrawal, A.**, Jaiswal, A., Lee, C., and Roy, K., X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories; *TCSI Dec. 2018* 4219-4232
- Agrawal, S.**, see Vudadha, C., *TCSI Dec. 2018* 4313-4325
- Agwa, S.**, Yahya, E., and Ismail, Y., A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation; *TCSI June 2018* 1909-1918
- Ahmad, J.**, see Pasha, M.T., *TCSI Feb. 2018* 758-768
- Ahmadi, M.**, see Ardakani, A., *TCSI April 2018* 1349-1362
- Ahmed, A.B.**, see Okuhara, H., *TCSI Oct. 2018* 3241-3254
- Ahn, G.**, see An, T., *TCSI Oct. 2018* 3227-3240
- Akcholu, A.**, see Unal, B., *TCSI Sept. 2018* 3074-3084
- Al Chawa, M.M.**, de Benito, C., and Picos, R., A Simple Piecewise Model of Reset/Set Transitions in Bipolar ReRAM Memristive Devices; *TCSI Oct. 2018* 3469-3480
- Al-Hashimi, B.M.**, see Vala, C.K., *TCSI Feb. 2018* 606-617
- Al-Numay, M.S.**, see Aroudi, A.E., *TCSI July 2018* 2341-2351
- Al-Rawhani, M.A.**, see Giagkoulovits, C., *TCSI Sept. 2018* 2821-2831
- Alaghi, A.**, see Kim, S., *TCSI Dec. 2018* 4285-4298
- Alhawari, M.**, see Kilani, D., *TCSI Nov. 2018* 4007-4016
- Ali, I.**, see Oh, S., *TCSI Sept. 2018* 3037-3048
- Ali, M.**, Shawkey, H., Zekry, A., and Sawan, M., One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications; *TCSI June 2018* 2005-2014
- Ali, S.**, and Cenk, M., Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC; *TCSI Aug. 2018* 2477-2490
- Alioto, M.**, see Trinh, Q., *TCSI April 2018* 1269-1278
- Alioto, M.**, see De Rose, R., *TCSI March 2018* 1086-1095
- Alioto, M.**, see Trinh, Q., *TCSI Oct. 2018* 3338-3348
- Alizadeh, B.**, and Shakeri, M., QBF-Based Post-Silicon Debug of Speed-Paths Under Timing Variations; *TCSI Dec. 2018* 4326-4335
- Allasameh, Y.**, and Gregori, S., High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters; *TCSI Nov. 2018* 3970-3983
- Alsaadi, F.E.**, see Cui, Y., *TCSI Oct. 2018* 3506-3518
- Alvarez-Fontecilla, E.**, Venerus, C., and Galton, I., Multi-Rate DEM With Mismatch-Noise Cancellation for DCOs in Digital PLLs; *TCSI Oct. 2018* 3125-3137
- Amano, H.**, see Okuhara, H., *TCSI Oct. 2018* 3241-3254
- Amrouch, H.**, see van Santen, V.M., *TCSI Jan. 2018* 293-306
- An, F.**, see Zhang, X., *TCSI Oct. 2018* 3312-3325
- An, T.**, Hwang, M., Choe, W., Ahn, G., and Lee, S., Area-Efficient Time-Shared Digital-to-Analog Converter With Dual Sampling for AMOLED Column Driver IC's; *TCSI Oct. 2018* 3227-3240
- An, W.**, see Huang, X., *TCSI Feb. 2018* 628-637
- Andersson, O.**, see Mohammadi, B., *TCSI April 2018* 1257-1268
- Ando, T.**, see Niitsu, K., *TCSI Sept. 2018* 2784-2796
- Andreani, P.**, see Pepe, F., *TCSI Feb. 2018* 531-542
- Andrenko, A.S.**, see Ou, J., *TCSI April 2018* 1234-1244
- Angotzi, G.N.**, see Crepaldi, M., *TCSI March 2018* 1096-1109
- Aniruddhan, S.**, see Kumar, A., *TCSI Oct. 2018* 3174-3185
- Anttila, L.**, see Lemberg, J., *TCSI Sept. 2018* 3085-3098
- Aprile, C.**, Ture, K., Baldassarre, L., Shoaran, M., Yilmaz, G., Maloberti, F., Dehollain, C., Leblebici, Y., and Cevher, V., Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants; *TCSI Nov. 2018* 3929-3941
- Apsel, A.**, see Bukreyev, I., *TCSI June 2018* 2035-2047
- Apsel, A.**, see Tapen, T., *TCSI May 2018* 1481-1494
- Apsel, A.B.**, see Gantsog, E., *TCSI May 2018* 1516-1528
- Ardakani, A.**, Condo, C., Ahmadi, M., and Gross, W.J., An Architecture to Accelerate Convolution in Deep Neural Networks; *TCSI April 2018* 1349-1362
- Aref, A.F.**, see Bayram, E., *TCSI Jan. 2018* 39-50
- Aroudi, A.E.**, Al-Numay, M.S., Lu, W.G., Bosque-Moncusi, J.M., and Iu, H.H., A Combined Analytical-Numerical Methodology for Predicting Subharmonic Oscillation in H-Bridge Inverters Under Double Edge Modulation; *TCSI July 2018* 2341-2351
- Asadi, H.**, see Khaleghi, B., *TCSI July 2018* 2196-2209
- Asghar, S.**, Afridi, S.S., Pillai, A., Schuler, A., de la Rosa, J.M., and O'Connell, I., A 2-MS/s, 11.22 ENOB, Extended Input Range SAR ADC With Improved DNL and Offset Calculation; *TCSI Nov. 2018* 3628-3638
- Aslam, C.A.**, Guan, Y.L., and Cai, K., Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory; *TCSI Jan. 2018* 353-365

B

- Babaie, M.**, see Kuo, F., *TCSI Nov. 2018* 3756-3768
- Badia, J.M.**, see Belloch, J.A., *TCSI May 2018* 1614-1627
- Bae, W.**, see Cho, S., *TCSI Sept. 2018* 2691-2702
- Baek, K.**, see Jung, D., *TCSI Nov. 2018* 3688-3697
- Bakiri, M.**, Couchot, J., and Guyeux, C., CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC; *TCSI May 2018* 1628-1641
- Bakkaloglu, B.**, see Beohar, N., *TCSI Feb. 2018* 818-831
- Balagopal, V.**, see Vala, C.K., *TCSI Feb. 2018* 606-617
- Baldassarre, L.**, see Aprile, C., *TCSI Nov. 2018* 3929-3941
- Bampi, S.**, see Baumgratz, F.D., *TCSI Aug. 2018* 2581-2591
- Bampi, S.**, see de Oliveira, A.C., *TCSI Nov. 2018* 3790-3799
- Banerjee, S.**, see Pai, P.P., *TCSI Feb. 2018* 663-676
- Banerjee, S.**, see Hatai, I., *TCSI Jan. 2018* 130-140
- Banerjee, S.**, see Basu, R., *TCSI July 2018* 2221-2231

- Banovic, K.**, and Carusone, A.C., A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications; *TCSI March 2018 1110-1119*
- Barbareschi, M.**, Di Natale, G., Torres, L., and Mazzeo, A., A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions; *TCSI Feb. 2018 700-711*
- Bardill, A.**, see Wu, Y., *TCSI Nov. 2018 3810-3820*
- Bardin, J.C.**, see Ghadiri-Sadrabadi, M., *TCSI Dec. 2018 4376-4389*
- Basak, D.**, Li, D., and Pun, K., A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement; *TCSI April 2018 1196-1209*
- Basaligheh, A.**, see Saffari, P., *TCSI May 2018 1529-1542*
- Basha, S.N.**, see Shao, Q., *TCSI Aug. 2018 2455-2465*
- Basu, A.**, see Wang, Z., *TCSI April 2018 1314-1326*
- Basu, R.**, Dutta, D., Banerjee, S., Holmes, V., and Mather, P., An Algorithmic Approach for Signal Measurement Using Symbolic Dynamics of Tent Map; *TCSI July 2018 2221-2231*
- Batten, C.**, see Bukreyev, I., *TCSI June 2018 2035-2047*
- Bauder, R.**, see Solomko, V., *TCSI May 2018 1731-1743*
- Baumgratz, F.D.**, Ferreira, S.B., Steyaert, M.S.J., Bampi, S., and Tavernier, F., 40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor; *TCSI Aug. 2018 2581-2591*
- Bayat-Sarmadi, S.**, see Salarifard, R., *TCSI Sept. 2018 2869-2877*
- Bayford, R.**, see Wu, Y., *TCSI Nov. 2018 3810-3820*
- Bayram, E.**, Aref, A.F., Saeed, M., and Negra, R., 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS; *TCSI Jan. 2018 39-50*
- Bazrafshan, A.**, Taherzadeh-Sani, M., and Nabki, F., A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking; *TCSI Oct. 2018 3186-3195*
- Beer, M.**, Schrey, O.M., Hosticka, B.J., and Kokozinski, R., Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes; *TCSI March 2018 970-981*
- Beerel, P.A.**, see Moreira, M.T., *TCSI June 2018 1981-1993*
- Behera, D.**, see Kumar, R.S.A., *TCSI Nov. 2018 3651-3661*
- Belghadr, A.**, and Jaberipur, G., FIR Filter Realization via Deferred End-Around Carry Modular Addition; *TCSI Sept. 2018 2878-2888*
- Bellizia, D.**, Scotti, G., and Trifiletti, A., TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results; *TCSI Nov. 2018 3874-3884*
- Belloch, J.A.**, Badia, J.M., Igual, F.D., Gonzalez, A., and Quintana-Orti, E.S., Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices; *TCSI May 2018 1614-1627*
- Belur, M.N.**, see Kothiyari, A., *TCSI Dec. 2018 4349-4362*
- Ben-Hur, R.**, see Haj-Ali, A., *TCSI Dec. 2018 4258-4271*
- Benetti, M.**, Gottardi, M., Mayr, T., and Passerone, R., A Low-Power Vision System With Adaptive Background Subtraction and Image Segmentation for Unusual Event Detection; *TCSI Nov. 2018 3842-3853*
- Beohar, N.**, Malladi, V.N.K., Mandal, D., Ozev, S., and Bakkaloglu, B., Online Built-In Self-Test of High Switching Frequency DC–DC Converters Using Model Reference Based System Identification Techniques; *TCSI Feb. 2018 818-831*
- Berdondini, L.**, see Crepaldi, M., *TCSI March 2018 1096-1109*
- Bermak, A.**, see Tang, F., *TCSI Aug. 2018 2524-2533*
- Bermak, A.**, see Mohamad, S., *TCSI Dec. 2018 4110-4120*
- Bernardini, A.**, Maffezzoni, P., Daniel, L., and Sarti, A., Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays; *TCSI April 2018 1363-1376*
- Bernardini, A.**, see Werner, K.J., *TCSI Dec. 2018 4233-4246*
- Bevilacqua, A.**, see Pepe, F., *TCSI Feb. 2018 531-542*
- Bevilacqua, A.**, see Scaramuzza, P., *TCSI Nov. 2018 3780-3789*
- Bevilacqua, A.**, see Mazzanti, A., *TCSI Dec. 2018 4157-4168*
- Bhanushali, K.**, see Zhao, W., *TCSI Jan. 2018 406-418*
- Bhat, A.**, and Krishnapura, N., Low $1/f^3$ Phase Noise Quadrature LC VCOs; *TCSI July 2018 2127-2138*
- Bhattacharya, S.**, see Pai, P.P., *TCSI Feb. 2018 663-676*
- Bindima, T.**, and Elias, E., Design and Implementation of Low Complexity 2-D Variable Digital FIR Filters Using Single-Parameter-Tunable 2-D Farrow Structure; *TCSI Feb. 2018 618-627*
- Birk, Y.**, see Sarfati, E., *TCSI Oct. 2018 3435-3444*
- Bizzarri, F.**, Brambilla, A., and Milano, F., Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops; *TCSI June 2018 1840-1849*
- Bizzarri, F.**, and Brambilla, A., Brushing Up on the Urbanek Black Box Arc Model; *TCSI May 2018 1675-1683*
- Blanco, A.A.**, and Rincon-Mora, G.A., Compact Fast-Waking Light/Heat-Harvesting 0.18- μ m CMOS Switched-Inductor Charger; *TCSI June 2018 2024-2034*
- Blokhina, E.**, Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems; *TCSI Nov. 2018 3605*
- Bloodworth, B.E.**, see Polley, A., *TCSI Feb. 2018 556-566*
- Bol, D.**, see Gimeno, C., *TCSI June 2018 2015-2023*
- Bol, D.**, see Stas, F., *TCSI March 2018 935-945*
- Bolme, D.S.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Boncalo, O.**, see Le, K., *TCSI July 2018 2183-2195*
- Bonfanti, A.**, see Leoncini, M., *TCSI June 2018 1968-1980*
- Boon, C.C.**, see Chen, Y., *TCSI Sept. 2018 3014-3026*
- Boon, C.C.**, see Kong, L., *TCSI Oct. 2018 3196-3206*
- Bosque-Moncusí, J.M.**, see Aroudi, A.E., *TCSI July 2018 2341-2351*
- Bouchami, A.**, Elsayed, M.Y., and Nabki, F., A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator; *TCSI Oct. 2018 3414-3423*
- Boynton, Z.**, see Tapen, T., *TCSI May 2018 1481-1494*
- Braendli, M.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Brambilla, A.**, see Bizzarri, F., *TCSI June 2018 1840-1849*
- Brambilla, A.**, see Bizzarri, F., *TCSI May 2018 1675-1683*
- Brandstaetter, S.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Britton, C.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Brnovic, N.R.**, see Ivanovic, V.N., *TCSI Oct. 2018 3376-3389*
- Bronders, P.**, see Cooman, A., *TCSI Dec. 2018 4133-4146*
- Bu, S.**, Leung, K.N., Lu, Y., Guo, J., and Zheng, Y., A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation; *TCSI Oct. 2018 3578-3591*
- Buckel, T.**, Preyler, P., Klinkan, A., Hamidovic, D., Preissl, C., Mayer, T., Tertinek, S., Brandstaetter, S., Wicpalek, C., Springer, A., and Weigel, R., A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture; *TCSI Dec. 2018 4390-4403*
- Bukreyev, I.**, Torng, C., Godycki, W.W., Batten, C., and Apsel, A., Four Monolithically Integrated Switched-Capacitor DC–DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS; *TCSI June 2018 2035-2047*
- Burg, A.**, see Giterman, R., *TCSI April 2018 1245-1256*
- Burg, A.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Busche, C.**, see Giagkoulovits, C., *TCSI Sept. 2018 2821-2831*
- Buschjager, S.**, and Morik, K., Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data; *TCSI Jan. 2018 209-222*

C

- Cai, H.**, see Dai, W., *TCSI Nov. 2018 3907-3917*
- Cai, H.**, see Liu, K., *TCSI May 2018 1696-1706*
- Cai, K.**, see Aslam, C.A., *TCSI Jan. 2018 353-365*
- Calazans, N.L.V.**, see Moreira, M.T., *TCSI June 2018 1981-1993*
- Camarda, A.**, Tartagni, M., and Romani, A., A 8 mV/+15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications; *TCSI April 2018 1454-1467*
- Cao, J.**, see Fu, J., *TCSI Dec. 2018 4363-4375*
- Cao, Y.**, see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
- Cao, Y.**, Liu, C.Q., and Chang, C.H., A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication; *TCSI Nov. 2018 3864-3873*
- Capolino, F.**, see Sloan, J.T., *TCSI Jan. 2018 3-13*
- Caram, J.P.**, Galloway, J., and Kenney, J.S., Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators; *TCSI Jan. 2018 74-83*
- Cardes, F.**, see Gutierrez, E., *TCSI Feb. 2018 444-457*
- Carey, S.J.**, see Martel, J.N.P., *TCSI March 2018 925-934*
- Carmona-Galan, R.**, see Lenero-Bardallo, J.A., *TCSI Nov. 2018 3854-3863*
- Carpentieri, M.**, see De Rose, R., *TCSI March 2018 1086-1095*
- Carta, C.**, see Ur Rehman, S., *TCSI Nov. 2018 3720-3733*
- Caruso, M.**, see Scaramuzza, P., *TCSI Nov. 2018 3780-3789*
- Carusone, A.C.**, see Banovic, K., *TCSI March 2018 1110-1119*
- Castaneda, O.**, Goldstein, T., and Studer, C., VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems; *TCSI March 2018 1120-1132*
- Castello, R.**, see Kargaran, E., *TCSI March 2018 891-903*
- Castorina, A.**, see Ragonese, E., *TCSI April 2018 1432-1441*
- Cathelin, A.**, see Mohammadi, B., *TCSI April 2018 1257-1268*
- Cathelin, A.**, see Gebreyohannes, F.T., *TCSI Nov. 2018 3956-3969*
- Cathelin, P.**, see Gebreyohannes, F.T., *TCSI Nov. 2018 3956-3969*

- Cavallaro, J.**, see Pareschi, F., *TCSI March 2018* 857-858
- Cazana, C.**, see Polley, A., *TCSI Feb. 2018* 556-566
- Cen, Y.**, see Fan, H., *TCSI Nov. 2018* 3698-3706
- Cent, M.**, see Ali, S., *TCSI Aug. 2018* 2477-2490
- Cevher, V.**, see Aprile, C., *TCSI Nov. 2018* 3929-3941
- Ceze, L.**, see Kim, S., *TCSI Dec. 2018* 4285-4298
- Chaganti, S.K.**, see Liu, Z., *TCSI May 2018* 1664-1674
- Chakrabarti, I.**, see Hatai, I., *TCSI Jan. 2018* 130-140
- Chakrabarti, I.**, see Prasad, N., *TCSI Oct. 2018* 3543-3554
- Chan, C.**, see Yang, X., *TCSI June 2018* 1819-1829
- Chan, C.**, see Wang, G., *TCSI Nov. 2018* 3707-3719
- Chan, C.**, see Zhu, Y., *TCSI Nov. 2018* 3606-3616
- Chang, C.**, see Chen, J., *TCSI Feb. 2018* 712-722
- Chang, C.**, see Wang, Z., *TCSI April 2018* 1314-1326
- Chang, C.**, and Onabajo, M., Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers; *TCSI March 2018* 859-869
- Chang, C.H.**, see Cao, Y., *TCSI Nov. 2018* 3864-3873
- Chang, J.S.**, see Cui, K., *TCSI Jan. 2018* 394-405
- Chang, L.**, see Hsu, C., *TCSI March 2018* 881-890
- Chang, M.F.**, see Du, L., *TCSI Jan. 2018* 198-208
- Chang, S.**, see Hsu, C., *TCSI March 2018* 881-890
- Chang, T.S.**, see Lin, Y., *TCSI May 2018* 1642-1651
- Chappidi, C.R.**, and Sengupta, K., Globally Optimal Matching Networks With Lossy Passives and Efficiency Bounds; *TCSI Jan. 2018* 257-269
- Chattopadhyay, S.**, see Prasad, N., *TCSI Oct. 2018* 3543-3554
- Chau, L.**, see Wang, Y., *TCSI March 2018* 992-1002
- Cheah, B.C.**, see Giagkoulovits, C., *TCSI Sept. 2018* 2821-2831
- Cheang, C.**, Mak, P., and Martins, R.P., A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation; *TCSI Sept. 2018* 2889-2902
- Chen, B.**, see Ma, S., *TCSI June 2018* 1795-1804
- Chen, B.**, see Wang, S., *TCSI Oct. 2018* 3390-3403
- Chen, C.**, see Li, M., *TCSI Oct. 2018* 3424-3434
- Chen, C.**, see Yeh, C., *TCSI Nov. 2018* 3918-3928
- Chen, C.W.**, see Lu, F., *TCSI Oct. 2018* 3555-3567
- Chen, D.**, see Chen, T., *TCSI July 2018* 2059-2069
- Chen, D.**, see Qiu, Y., *TCSI Aug. 2018* 2503-2514
- Chen, D.**, see Liu, Z., *TCSI May 2018* 1664-1674
- Chen, F.**, see Li, Y., *TCSI Sept. 2018* 3110-3121
- Chen, G.**, see Lou, Y., *TCSI Sept. 2018* 2983-2991
- Chen, G.**, see Wang, H., *TCSI Dec. 2018* 4336-4348
- Chen, H.**, see Zhao, Y., *TCSI April 2018* 1340-1348
- Chen, H.R.**, see Kuo, F., *TCSI Nov. 2018* 3756-3768
- Chen, J.**, Chang, C., Ding, J., Qiao, R., and Faust, M., Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters; *TCSI Feb. 2018* 712-722
- Chen, J.**, see Han, K., *TCSI Feb. 2018* 769-782
- Chen, J.**, see Jiang, X., *TCSI March 2018* 1143-1153
- Chen, L.**, see Zhang, X., *TCSI Oct. 2018* 3312-3325
- Chen, M.**, see Kuo, F., *TCSI Nov. 2018* 3756-3768
- Chen, N.**, Zhong, S., Zou, M., Zhang, J., Ji, Z., and Yao, L., A Low-Noise CMOS Image Sensor With Digital Correlated Multiple Sampling; *TCSI Jan. 2018* 84-94
- Chen, P.**, see Lin, S., *TCSI June 2018* 1929-1940
- Chen, P.**, see Liu, R., *TCSI Oct. 2018* 3459-3468
- Chen, P.**, Huang, X., Chen, Y., Wu, L., and Staszewski, R.B., An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop; *TCSI Nov. 2018* 3734-3744
- Chen, R.**, see Sang, L., *TCSI Aug. 2018* 2559-2570
- Chen, S.**, see Garrido, M., *TCSI Feb. 2018* 581-592
- Chen, T.**, see Tsai, M., *TCSI Jan. 2018* 107-117
- Chen, T.**, Jin, X., Geiger, R.L., and Chen, D., USER-SMILE: Ultrafast Stimulus Error Removal and Segmented Model Identification of Linearity Errors for ADC Built-in Self-Test; *TCSI July 2018* 2059-2069
- Chen, T.**, see Song, S., *TCSI July 2018* 2269-2278
- Chen, Y.**, see Wang, Z., *TCSI April 2018* 1314-1326
- Chen, Y.**, Mak, P., Boon, C.C., and Martins, R.P., A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximized Timing Margin; *TCSI Sept. 2018* 3014-3026
- Chen, Y.**, see Kong, L., *TCSI Oct. 2018* 3196-3206
- Chen, Y.**, see Chen, P., *TCSI Nov. 2018* 3734-3744
- Chen, Z.**, see Wang, R., *TCSI March 2018* 904-913
- Cheng, K.**, see Tu, Y., *TCSI July 2018* 2097-2108
- Cherniak, D.**, Samori, C., Nonis, R., and Levantino, S., PLL-Based Wideband Frequency Modulator: Two-Point Injection Versus Pre-Emphasis Technique; *TCSI March 2018* 914-924
- Cherubini, G.**, see Yueksel, H., *TCSI Oct. 2018* 3529-3542
- Chery, A.**, see D'Angelo, R., *TCSI Sept. 2018* 2929-2938
- Cheung, C.**, see Huang, Y., *TCSI April 2018* 1210-1223
- Chi, B.**, see Jia, H., *TCSI Sept. 2018* 2657-2668
- Chien, C.**, Longinotti, L., Steimer, A., and Liu, S., Hardware Implementation of an Event-Based Message Passing Graphical Model Network; *TCSI Sept. 2018* 2739-2752
- Chien, Y.**, and Wang, J., A 0.2 V 32-Kb 10T SRAM With 41 nW Standby Power for IoT Applications; *TCSI Aug. 2018* 2443-2454
- Chiu, C.**, Van, L., and Lin, Y., Efficient Progressive Radiance Estimation Engine Architecture and Implementation for Progressive Photon Mapping; *TCSI Aug. 2018* 2491-2502
- Chiu, H.**, see Tsai, M., *TCSI Jan. 2018* 107-117
- Chiu, L.**, see Hou, Z.J., *TCSI July 2018* 2139-2150
- Chlis, I.**, see Pepe, D., *TCSI May 2018* 1495-1504
- Cho, L.**, see Kuo, F., *TCSI Nov. 2018* 3756-3768
- Cho, S.**, Kim, S., Choo, M., Ko, H., Lee, J., Bae, W., and Jeong, D., A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection; *TCSI Sept. 2018* 2691-2702
- Choe, W.**, see An, T., *TCSI Oct. 2018* 3227-3240
- Choo, K.D.**, see Song, S., *TCSI July 2018* 2269-2278
- Choo, M.**, see Cho, S., *TCSI Sept. 2018* 2691-2702
- Chou, H.**, see Shih, X., *TCSI Jan. 2018* 118-129
- Chou, H.**, see Shih, X., *TCSI Nov. 2018* 3942-3955
- Choudhary, S.**, see Adhikary, A., *TCSI Aug. 2018* 2411-2421
- Choudhary, V.**, see Sarma, V., *TCSI June 2018* 1785-1794
- Chowdhury, G.**, and Hassibi, A., An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a $\Delta\Sigma$ Loop; *TCSI June 2018* 1887-1896
- Chu, T.**, see Yeh, C., *TCSI Nov. 2018* 3918-3928
- Ciampolini, L.**, see Mohammadi, B., *TCSI April 2018* 1257-1268
- Ciardi, G.**, see Saponara, S., *TCSI Jan. 2018* 380-393
- Cideciyan, R.D.**, see Yueksel, H., *TCSI Oct. 2018* 3529-3542
- Condo, C.**, see Ardakani, A., *TCSI April 2018* 1349-1362
- Condo, C.**, Giard, P., Leduc-Primeau, F., Sarkis, G., and Gross, W.J., A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture; *TCSI April 2018* 1420-1431
- Condo, C.**, see Coppelino, G., *TCSI Dec. 2018* 4413-4422
- Cooman, A.**, Bronders, P., Peumans, D., Vandersteen, G., and Rolain, Y., Distortion Contribution Analysis With the Best Linear Approximation; *TCSI Dec. 2018* 4133-4146
- Coppelino, G.**, Condo, C., Masera, G., and Gross, W.J., A Multi-Kernel Multi-Code Polar Decoder Architecture; *TCSI Dec. 2018* 4413-4422
- Cordova, D.**, see de Oliveira, A.C., *TCSI Nov. 2018* 3790-3799
- Corinto, F.**, and Forti, M., Memristor Circuits: Pulse Programming via Invariant Manifolds; *TCSI April 2018* 1327-1339
- Corinto, F.**, and Forti, M., Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method; *TCSI March 2018* 1040-1050
- Couchot, J.**, see Bakiri, M., *TCSI May 2018* 1628-1641
- Creagh, S.C.**, see Phang, S., *TCSI Sept. 2018* 3027-3036
- Crepaldi, M.**, Angotzi, G.N., Maviglia, A., Diotallevi, F., and Berdondini, L., A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis; *TCSI March 2018* 1096-1109
- Crupi, F.**, see De Rose, R., *TCSI March 2018* 1086-1095
- Cui, H.**, see Yang, J., *TCSI Feb. 2018* 832-841
- Cui, K.**, Adrian, V., Gwee, B., and Chang, J.S., A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters; *TCSI Jan. 2018* 394-405
- Cui, Y.**, Liu, Y., Zhang, W., and Alsaadi, F.E., Event-Based Consensus for a Class of Nonlinear Multi-Agent Systems With Sequentially Connected Topology; *TCSI Oct. 2018* 3506-3518
- Cumming, D.R.S.**, see Giagkoulovits, C., *TCSI Sept. 2018* 2821-2831

D

- D'Angelo, R.**, Du, X., Salthouse, C.D., Hollosi, B., Freifeld, G., Uy, W., Huang, H., Tran, N., Chery, A., Seo, J., Cao, Y., Poppe, D.C., and Sonkusale, S.R., Process Scalability of Pulse-Based Circuits for Analog Image Convolution; *TCSI Sept. 2018* 2929-2938
- da Silva, A.F.**, see Thomaz, L.A., *TCSI March 2018* 1003-1015
- da Silva, E.A.B.**, see Thomaz, L.A., *TCSI March 2018* 1003-1015

- Dai, W.**, Shan, W., Shang, X., Liu, X., Cai, H., and Yang, J., HTD: A Light-Weight Hologrammetrical Transition Detector for Wide-Voltage-Range Variation Resilient ICs; *TCSI Nov. 2018 3907-3917*
- Dandapat, A.**, see Mishra, S., *TCSI May 2018 1591-1601*
- Dang, L.**, see Wang, S., *TCSI Oct. 2018 3390-3403*
- Daniel, L.**, see Bernardini, A., *TCSI April 2018 1363-1376*
- Das, D.**, Maity, S., Nasir, S.B., Ghosh, S., Raychowdhury, A., and Sen, S., ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity; *TCSI Oct. 2018 3300-3311*
- Datta, K.**, see Thangkhiew, P.L., *TCSI Aug. 2018 2466-2476*
- De, A.**, see Pai, P.P., *TCSI Feb. 2018 663-676*
- de Benito, C.**, see Al Chawa, M.M., *TCSI Oct. 2018 3469-3480*
- De Caro, D.**, see De Martino, M., *TCSI Nov. 2018 3885-3896*
- De Caro, D.**, see Esposito, D., *TCSI Dec. 2018 4169-4182*
- de Gelidi, S.**, see Wu, Y., *TCSI Nov. 2018 3810-3820*
- de la Rosa, J.M.**, see Honarparvar, M., *TCSI Nov. 2018 3675-3687*
- de la Rosa, J.M.**, see Asghar, S., *TCSI Nov. 2018 3628-3638*
- de Lamare, R.C.**, see Toledo de la Garza, K., *TCSI April 2018 1303-1313*
- De Martino, M.**, De Caro, D., Esposito, D., Napoli, E., Petra, N., and Strollo, A.G.M., A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread- Spectrum Capability; *TCSI Nov. 2018 3885-3896*
- de Melo, J.L.A.**, Paulino, N., and Goes, J., Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators; *TCSI Nov. 2018 3662-3674*
- de Oliveira, A.C.**, Cordova, D., Klimach, H., and Bampi, S., A 0.12–0.4 V, Versatile 3-Transistor CMOS Voltage Reference for Ultra-Low Power Systems; *TCSI Nov. 2018 3790-3799*
- De Rose, R.**, Lanuzza, M., Crupi, F., Siracusano, G., Tomasello, R., Finocchio, G., Carpentieri, M., and Alioto, M., A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits; *TCSI March 2018 1086-1095*
- Declercq, D.**, see Le, K., *TCSI July 2018 2183-2195*
- Degenaar, P.**, see Zhao, H., *TCSI Aug. 2018 2431-2442*
- Dehollain, C.**, see Aprile, C., *TCSI Nov. 2018 3929-3941*
- Delgado-Restituto, M.**, see Lenero-Bardallo, J.A., *TCSI Nov. 2018 3854-3863*
- Demosthenous, A.**, New Year Editorial; *TCSI Jan. 2018 1-2*
- Demosthenous, A.**, see Schormans, M., *TCSI Sept. 2018 2645-2656*
- Demosthenous, A.**, see Wu, Y., *TCSI Nov. 2018 3810-3820*
- Deptuch, G.W.**, Fahim, F., Grybos, P., Hoff, J., Holm, S., Maj, P., Siddons, D.P., Kmon, P., Trimpl, M., and Zimmerman, T., An Algorithm of an X-ray Hit Allocation to a Single Pixel in a Cluster and Its Test-Circuit Implementation; *TCSI Jan. 2018 185-197*
- Dey, S.**, see Payandehnia, P., *TCSI Aug. 2018 2353-2364*
- Dezyani, M.**, Ghafoorifard, H., Sheikhaei, S., and Serdijn, W.A., A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting; *TCSI Oct. 2018 3568-3577*
- Di Capua, G.**, see Ozalevli, E., *TCSI July 2018 2318-2329*
- Di Natale, G.**, see Barbareschi, M., *TCSI Feb. 2018 700-711*
- Di Natale, G.**, see Martin, H., *TCSI Jan. 2018 247-256*
- Ding, J.**, see Chen, J., *TCSI Feb. 2018 712-722*
- Ding, S.X.**, see Li, Y., *TCSI Oct. 2018 3492-3505*
- Diotalevi, F.**, see Crepaldi, M., *TCSI March 2018 1096-1109*
- Dong, J.**, see Weng, Z., *TCSI Feb. 2018 745-757*
- Dong, L.**, see Wang, Y., *TCSI July 2018 2330-2340*
- Dong, N.**, see Zhao, H., *TCSI Aug. 2018 2431-2442*
- Dong, Y.**, see Lu, F., *TCSI Oct. 2018 3555-3567*
- Du, D.**, see Ozalevli, E., *TCSI July 2018 2318-2329*
- Du, L.**, Du, Y., Li, Y., Su, J., Kuan, Y., Liu, C., and Chang, M.F., A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things; *TCSI Jan. 2018 198-208*
- Du, N.**, see Qiu, Y., *TCSI Aug. 2018 2503-2514*
- Du, X.**, see Kumar, D., *TCSI Aug. 2018 2571-2580*
- Du, X.**, see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
- Du, Y.**, see Du, L., *TCSI Jan. 2018 198-208*
- Duan, P.**, see Liu, K., *TCSI May 2018 1696-1706*
- Duan, S.**, see Wang, S., *TCSI Oct. 2018 3390-3403*
- Duan, Z.**, see Liu, K., *TCSI May 2018 1696-1706*
- Dudek, P.**, see Martel, J.N.P., *TCSI March 2018 925-934*
- Dufrene, K.**, see Sadjina, S., *TCSI Nov. 2018 3745-3755*
- Dutkiewicz, E.**, see Hou, Z., *TCSI July 2018 2139-2150*
- Dutta, D.**, see Basu, R., *TCSI July 2018 2221-2231*
- Elias, E.**, see Bindima, T., *TCSI Feb. 2018 618-627*
- Ellinger, F.**, see Ur Rehman, S., *TCSI Nov. 2018 3720-3733*
- Elliott, D.G.**, see Jiang, X., *TCSI March 2018 1143-1153*
- Elmaghraby, A.**, Kanumalli, R.S., Schelmbauer, W., Mayer, A., Herzinger, S., Schwartz, D., Huemer, M., and Weigel, R., A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers; *TCSI Sept. 2018 3060-3073*
- Elsayed, M.Y.**, see Bouchami, A., *TCSI Oct. 2018 3414-3423*
- Elshazly, A.**, see Shen, K., *TCSI July 2018 2109-2117*
- Eltawil, A.M.**, see Fouda, M.E., *TCSI Jan. 2018 270-282*
- Englund, M.**, Ul Haq, F., Stadius, K., Kosunen, M., Ostman, K.B., Koli, K., and Ryyanen, J., A Systematic Design Method for Direct Delta-Sigma Receivers; *TCSI Aug. 2018 2389-2402*
- Entrena, L.**, see Martin, H., *TCSI Jan. 2018 247-256*
- Esposito, D.**, see De Martino, M., *TCSI Nov. 2018 3885-3896*
- Esposito, D.**, Strollo, A.G.M., Napoli, E., De Caro, D., and Petra, N., Approximate Multipliers Based on New Approximate Compressors; *TCSI Dec. 2018 4169-4182*
- Etienne-Cummings, R.**, see Thakur, C.S., *TCSI April 2018 1174-1184*

F

- Fahim, F.**, see Deptuch, G.W., *TCSI Jan. 2018 185-197*
- Faifer, M.**, Laurano, C., Ottoboni, R., Prioli, M., Toscani, S., and Zanon, M., Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input; *TCSI May 2018 1652-1663*
- Fan, H.**, Li, D., Zhang, K., Cen, Y., Feng, Q., Qiao, F., and Heidari, H., A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications; *TCSI Nov. 2018 3698-3706*
- Fan, Y.**, see Shen, K., *TCSI July 2018 2109-2117*
- Fan, Y.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Fang, Y.**, see Tang, Z., *TCSI Nov. 2018 3821-3829*
- Fardad, M.**, Sayedi, S.M., and Yazdian, E., A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction; *TCSI Oct. 2018 3349-3361*
- Farian, L.**, Hafziger, P., and Lenero-Bardallo, J.A., A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes; *TCSI May 2018 1543-1554*
- Faust, M.**, see Chen, J., *TCSI Feb. 2018 712-722*
- Femia, N.**, see Ozalevli, E., *TCSI July 2018 2318-2329*
- Feng, G.**, see Wang, M., *TCSI Sept. 2018 3005-3013*
- Feng, J.**, see Ma, S., *TCSI June 2018 1795-1804*
- Feng, Q.**, see Fan, H., *TCSI Nov. 2018 3698-3706*
- Fernandes, J.**, see Liu, S., *TCSI Feb. 2018 458-470*
- Fernandez-Getino Garcia, M.J.**, see Toledo de la Garza, K., *TCSI April 2018 1303-1313*
- Ferreira, S.B.**, see Baumgratz, F.D., *TCSI Aug. 2018 2581-2591*
- Finocchio, G.**, see De Rose, R., *TCSI March 2018 1086-1095*
- Fish, A.**, see Mordakhay, A., *TCSI April 2018 1224-1233*
- Fish, A.**, see Giterman, R., *TCSI April 2018 1245-1256*
- Flandre, D.**, see Gimeno, C., *TCSI June 2018 2015-2023*
- Flynn, M.P.**, see Song, S., *TCSI July 2018 2269-2278*
- Forti, M.**, see Corinto, F., *TCSI April 2018 1327-1339*
- Forti, M.**, see Corinto, F., *TCSI March 2018 1040-1050*
- Fouda, M.E.**, Eltawil, A.M., and Kurdahi, F., Modeling and Analysis of Passive Switching Crossbar Arrays; *TCSI Jan. 2018 270-282*
- Francese, P.A.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Frankel, B.**, see Sarfati, E., *TCSI Oct. 2018 3435-3444*
- Franzon, P.D.**, see Zhao, W., *TCSI Jan. 2018 406-418*
- Frappe, A.**, see Marin, R., *TCSI Jan. 2018 343-352*
- Frappe, A.**, see Gebreyohannes, F.T., *TCSI Nov. 2018 3956-3969*
- Freifeld, G.**, see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
- Friedman, E.G.**, see Zhang, Y., *TCSI Feb. 2018 677-686*
- Fu, J.**, Wen, G., Yu, W., Huang, T., and Cao, J., Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information; *TCSI Dec. 2018 4363-4375*
- Fujita, M.**, see Wang, P., *TCSI March 2018 1063-1074*
- Furrer, S.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*

E

- El Markhi, M.**, see Ozalevli, E., *TCSI July 2018 2318-2329*
- El-Gabaly, A.M.**, see Li, H., *TCSI Feb. 2018 510-521*

G

- Gadfort, P.**, see Zhao, W., *TCSI Jan. 2018 406-418*
- Galloway, J.**, see Caram, J.P., *TCSI Jan. 2018 74-83*
- Galton, I.**, see Kong, D., *TCSI Feb. 2018 421-433*
- Galton, I.**, see Alvarez-Fontecilla, E., *TCSI Oct. 2018 3125-3137*
- Gantsog, E.**, and Apsel, A.B., Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement; *TCSI May 2018 1516-1528*
- Gao, D.**, see Ming, X., *TCSI Dec. 2018 4086-4096*
- Garcia-Redondo, F.**, and Lopez-Vallejo, M., Auto-Erasable RRAM Architecture Secured Against Physical and Firmware Attacks; *TCSI May 2018 1581-1590*
- Garrido, M.**, Huang, S., and Chen, S., Feedforward FFT Hardware Architectures Based on Rotator Allocation; *TCSI Feb. 2018 581-592*
- Gebhard, A.**, see Sadjina, S., *TCSI Nov. 2018 3745-3755*
- Gebreyohannes, F.T.**, Frappe, A., Cathelin, P., Cathelin, A., and Kaiser, A., All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs; *TCSI Nov. 2018 3956-3969*
- Geiger, R.L.**, see Chen, T., *TCSI July 2018 2059-2069*
- George, N.V.**, see Ray, D., *TCSI Dec. 2018 4247-4257*
- Ghadiri-Sadrabadi, M.**, and Bardin, J.C., A Discrete-Time RF Signal-Processing Technique for Blocker-Tolerant Receivers With Wide Instantaneous Bandwidth; *TCSI Dec. 2018 4376-4389*
- Ghaffari, F.**, see Le, K., *TCSI July 2018 2183-2195*
- Ghaffari, F.**, see Unal, B., *TCSI Sept. 2018 3074-3084*
- Ghafoorifard, H.**, see Dezyani, M., *TCSI Oct. 2018 3568-3577*
- Gharehbaghi, A.M.**, see Wang, P., *TCSI March 2018 1063-1074*
- Gharpinde, R.**, see Thangkhiew, P.L., *TCSI Aug. 2018 2466-2476*
- Gharpurey, R.**, see Singh, V.K., *TCSI July 2018 2304-2317*
- Ghosh, S.**, see Motaman, S., *TCSI June 2018 1919-1928*
- Ghosh, S.**, see Das, D., *TCSI Oct. 2018 3300-3311*
- Giagkoulovits, C.**, Cheah, B.C., Al-Rawhani, M.A., Accarino, C., Busche, C., Grant, J.P., and Cumming, D.R.S., A 16 x 16 CMOS Amperometric Microelectrode Array for Simultaneous Electrochemical Measurements; *TCSI Sept. 2018 2821-2831*
- Giard, P.**, see Condo, C., *TCSI April 2018 1420-1431*
- Gimeno, C.**, Flandre, D., and Bol, D., Analysis and Specification of an IR-UWB Transceiver for High-Speed Chip-to-Chip Communication in a Server Chassis; *TCSI June 2018 2015-2023*
- Giterman, R.**, Fish, A., Burg, A., and Teman, A., A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI; *TCSI April 2018 1245-1256*
- Giterman, R.**, Weizman, Y., and Teman, A., Gain-Cell Embedded DRAM-Based Physical Unclonable Function; *TCSI Dec. 2018 4208-4218*
- Godycki, W.W.**, see Bukreyev, I., *TCSI June 2018 2035-2047*
- Goes, J.**, see de Melo, J.L.A., *TCSI Nov. 2018 3662-3674*
- Goldstein, T.**, see Castaneda, O., *TCSI March 2018 1120-1132*
- Golofit, K.**, see Wiczorek, P.Z., *TCSI April 2018 1279-1292*
- Gonzalez, A.**, see Belloch, J.A., *TCSI May 2018 1614-1627*
- Gonzalez-Toral, R.**, Liu, S., Reviriego, P., and Maestro, J.A., Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection; *TCSI April 2018 1293-1302*
- Gottardi, M.**, see Benetti, M., *TCSI Nov. 2018 3842-3853*
- Gradoni, G.**, see Phang, S., *TCSI Sept. 2018 3027-3036*
- Grant, J.P.**, see Giagkoulovits, C., *TCSI Sept. 2018 2821-2831*
- Greco, N.**, see Ragonese, E., *TCSI April 2018 1432-1441*
- Greco, N.**, Parisi, A., Lombardo, P., Spina, N., Ragonese, E., and Palmisano, G., A Double-Isolated DC-DC Converter Based on Integrated LC Resonant Barriers; *TCSI Dec. 2018 4423-4433*
- Green, M.M.**, see Karimi-Bidhendi, A., *TCSI Feb. 2018 498-509*
- Gregori, S.**, see Allasameh, Y., *TCSI Nov. 2018 3970-3983*
- Gross, W.J.**, see Ardakani, A., *TCSI April 2018 1349-1362*
- Gross, W.J.**, see Condo, C., *TCSI April 2018 1420-1431*
- Gross, W.J.**, see Coppolino, G., *TCSI Dec. 2018 4413-4422*
- Grubl, A.**, see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
- Grujic, D.N.**, see Milicevic, M.M., *TCSI Oct. 2018 3138-3149*
- Grybos, P.**, see Deptuch, G.W., *TCSI Jan. 2018 185-197*
- Gu, Q.J.**, see Li, J., *TCSI March 2018 1133-1142*
- Guan, Y.L.**, see Aslam, C.A., *TCSI Jan. 2018 353-365*
- Gui, P.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Guo, J.**, see Bu, S., *TCSI Oct. 2018 3578-3591*
- Guo, S.**, Gui, P., Liu, T., Zhang, T., Xi, T., Wu, G., Fan, Y., and Morgan, M., A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO; *TCSI Oct. 2018 3162-3173*

- Gupta, K.**, see Gupta, S., *TCSI Oct. 2018 3326-3337*
- Gupta, S.**, Gupta, K., and Pandey, N., Pentavariate V_{\min} Analysis of a Subthreshold 10T SRAM Bit Cell With Variation Tolerant Write and Divided Bit-Line Read; *TCSI Oct. 2018 3326-3337*
- Gutierrez, E.**, Hernandez, L., Cardes, F., and Rombouts, P., A Pulse Frequency Modulation Interpretation of VCOs Enabling VCO-ADC Architectures With Extended Noise Shaping; *TCSI Feb. 2018 444-457*
- Guyeux, C.**, see Bakiri, M., *TCSI May 2018 1628-1641*
- Gwee, B.**, see Cui, K., *TCSI Jan. 2018 394-405*

H

- Habib, M.H.U.**, see Shawkat, M.S.A., *TCSI Nov. 2018 3830-3841*
- Hafliker, P.**, see Farian, L., *TCSI May 2018 1543-1554*
- Haj-Ali, A.**, Ben-Hur, R., Wald, N., Ronen, R., and Kvatinisky, S., IMAGING: In-Memory Algorithms for Image processing; *TCSI Dec. 2018 4258-4271*
- Halliday, D.M.**, see Johnson, A.P., *TCSI Feb. 2018 687-699*
- Hamashita, K.**, see Sadollahi, M., *TCSI Jan. 2018 61-73*
- Hamashita, K.**, see Sun, H., *TCSI Dec. 2018 4037-4050*
- Hameed, S.**, and Pamarti, S., Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices; *TCSI Sept. 2018 2842-2855*
- Hamidovic, D.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Hamilton, T.J.**, see Thakur, C.S., *TCSI April 2018 1174-1184*
- Han, H.**, see Zhang, S., *TCSI Feb. 2018 638-649*
- Han, K.**, Hu, J., Chen, J., and Lu, H., A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing; *TCSI Feb. 2018 769-782*
- Han, Q.**, see Wan, X., *TCSI Oct. 2018 3481-3491*
- Han, R.**, see Jiang, Y., *TCSI Sept. 2018 2726-2738*
- Haniotakis, T.**, see Mozaffari, S.N., *TCSI March 2018 946-959*
- Haque, M.F.U.**, see Pasha, M.T., *TCSI Feb. 2018 758-768*
- Haque, T.**, see Yazicigil, R.T., *TCSI June 2018 1775-1784*
- Harkin, J.**, see Johnson, A.P., *TCSI Feb. 2018 687-699*
- Hartel, A.**, see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
- Hasan, M.M.**, and Wahid, K.A., Low-Cost Lifting Architecture and Lossless Implementation of Daubechies-8 Wavelets; *TCSI Aug. 2018 2515-2523*
- Hashemian, R.**, Amplifier Design for Specified Frequency Response Profiles Using Nullors-Hearing Aids, a Case Study; *TCSI Dec. 2018 4147-4156*
- Hassibi, A.**, see Chowdhury, G., *TCSI June 2018 1887-1896*
- Hatai, I.**, Chakrabarti, I., and Banerjee, S., A Computationally Efficient Reconfigurable Constant Multiplication Architecture Based on CSD Decoded Vertical-Horizontal Common Sub-Expression Elimination Algorithm; *TCSI Jan. 2018 130-140*
- Hayashi, K.**, see Niitsu, K., *TCSI Sept. 2018 2784-2796*
- Hazeri, A.R.**, and Miar-Naimi, H., Generalized Analytical Equations for Injected Ring Oscillator With RC-Load; *TCSI Jan. 2018 223-234*
- He, Z.**, see Li, Y., *TCSI Sept. 2018 3110-3121*
- Heidari, H.**, see Fan, H., *TCSI Nov. 2018 3698-3706*
- Hella, M.M.**, see Ray, S., *TCSI Aug. 2018 2365-2377*
- Hemour, S.**, see Zhao, Y., *TCSI April 2018 1340-1348*
- Heng, C.**, see Luo, Z., *TCSI May 2018 1744-1757*
- Henkel, J.**, see van Santen, V.M., *TCSI Jan. 2018 293-306*
- Hernandez, L.**, see Gutierrez, E., *TCSI Feb. 2018 444-457*
- Herzel, F.**, Kissinger, D., and Ng, H.J., Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop; *TCSI Feb. 2018 783-792*
- Herzinger, S.**, see Elmaghraby, A., *TCSI Sept. 2018 3060-3073*
- Heydari, P.**, see Karimi-Bidhendi, A., *TCSI Feb. 2018 498-509*
- Hickle, M.D.**, and Peroulis, D., Theory and Design of Frequency-Tunable Absorptive Bandstop Filters; *TCSI June 2018 1862-1874*
- Hinamoto, T.**, see Lu, W., *TCSI March 2018 982-991*
- Ho, D.**, see Luo, Y., *TCSI May 2018 1555-1566*
- Ho, W.**, see Singh, V.K., *TCSI July 2018 2304-2317*
- Hoff, J.**, see Deptuch, G.W., *TCSI Jan. 2018 185-197*
- Holleman, J.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Hollosi, B.**, see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
- Holm, S.**, see Deptuch, G.W., *TCSI Jan. 2018 185-197*
- Holmes, V.**, see Basu, R., *TCSI July 2018 2221-2231*
- Holzer, K.D.**, Yuan, W., and Walling, J.S., Wideband Techniques for Outphasing Power Amplifiers; *TCSI Sept. 2018 2715-2725*
- Honarparvar, M.**, de la Rosa, J.M., and Sawan, M., A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth; *TCSI Nov. 2018 3675-3687*

Hong, W., see Li, J., *TCSI March 2018 1133-1142*
Hong, Z., see Lyu, W., *TCSI June 2018 1954-1967*
Horsky, P., see Kadlick, L., *TCSI Sept. 2018 2753-2763*
Hosticka, B.J., see Beer, M., *TCSI March 2018 970-981*
Hou, C., see Hsu, C., *TCSI March 2018 881-890*
Hou, Z.J., Yang, Y., Chiu, L., Zhu, X., Dutkiewicz, E., Vardaxoglou, J.C., and Xue, Q., A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology; *TCSI July 2018 2139-2150*
Howe, P., see Kim, S., *TCSI Dec. 2018 4285-4298*
Hsu, C., see Lin, S., *TCSI June 2018 1929-1940*
Hsu, C., Chang, S., Huang, C., Chang, L., Shyu, Y., Hou, C., Tseng, H., Kung, C., and Hu, H., A 12-b 40-MS/s Calibration-Free SAR ADC; *TCSI March 2018 881-890*
Hu, H., see Hsu, C., *TCSI March 2018 881-890*
Hu, J., see Han, K., *TCSI Feb. 2018 769-782*
Hu, J., see Li, Y., *TCSI Sept. 2018 3110-3121*
Hu, J., see Lee, S., *TCSI Oct. 2018 3445-3458*
Hu, J., Ma, K., Mou, S., and Meng, F., A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load; *TCSI Oct. 2018 3150-3161*
Hu, L., see Ming, X., *TCSI Dec. 2018 4086-4096*
Hu, S., see Tang, F., *TCSI Aug. 2018 2524-2533*
Hu, Z., see Shao, Q., *TCSI Aug. 2018 2455-2465*
Hua, Z., and Zhou, Y., One-Dimensional Nonlinear Model for Producing Chaos; *TCSI Jan. 2018 235-246*
Huang, C., see Hsu, C., *TCSI March 2018 881-890*
Huang, H., see Peng, S., *TCSI Feb. 2018 543-555*
Huang, H., see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
Huang, J., see Wang, S., *TCSI April 2018 1377-1385*
Huang, P., see Jiang, Y., *TCSI Sept. 2018 2726-2738*
Huang, S., see Garrido, M., *TCSI Feb. 2018 581-592*
Huang, T., see Fu, J., *TCSI Dec. 2018 4363-4375*
Huang, X., Zhang, B., Qin, H., and An, W., Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies; *TCSI Feb. 2018 628-637*
Huang, X., see Chen, P., *TCSI Nov. 2018 3734-3744*
Huang, Y., Zhu, L., Kong, F., Cheung, C., and Najafizadeh, L., BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits; *TCSI April 2018 1210-1223*
Huang, Y., Wang, J., Shi, D., and Shi, L., Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results; *TCSI July 2018 2256-2268*
Huang, Y., Lu, Y., Maloberti, F., and Martins, R.P., Nano-Ampere Low-Dropout Regulator Designs for IoT Devices; *TCSI Nov. 2018 4017-4026*
Huang, Z., Jiang, B., and Luong, H.C., A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector; *TCSI July 2018 2118-2126*
Huemer, M., see Elmaghraby, A., *TCSI Sept. 2018 3060-3073*
Huemer, M., see Sadjina, S., *TCSI Nov. 2018 3745-3755*
Hwang, K.C., see Oh, S., *TCSI Sept. 2018 3037-3048*
Hwang, M., see An, T., *TCSI Oct. 2018 3227-3240*
Hwang, S., see Song, J., *TCSI Jan. 2018 331-342*
Hwang, S., see Seo, M., *TCSI Nov. 2018 3617-3627*

I

Ibrahim, A., and Valle, M., Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing; *TCSI Nov. 2018 3897-3906*
Igual, F.D., see Belloch, J.A., *TCSI May 2018 1614-1627*
Iizuka, T., Ito, T., and Abidi, A.A., Comprehensive Analysis of Distortion in the Passive FET Sample-and-Hold Circuit; *TCSI April 2018 1157-1173*
Ikeda, K., see Niitsu, K., *TCSI Sept. 2018 2784-2796*
ImmadiSETTY, K., see Vala, C.K., *TCSI Feb. 2018 606-617*
Ishihara, Y., see Ohno, S., *TCSI April 2018 1395-1405*
Ishii, I., see Zhang, X., *TCSI Oct. 2018 3312-3325*
Islam, M.N., Patil, V.C., and Kundu, S., On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging; *TCSI March 2018 960-969*
Ismail, M., see Abdulslam, A., *TCSI Aug. 2018 2617-2630*
Ismail, M., see Kilani, D., *TCSI Nov. 2018 4007-4016*
Ismail, Y., see Agwa, S., *TCSI June 2018 1909-1918*
Ismail, Y., see Abdulslam, A., *TCSI Aug. 2018 2617-2630*
Ito, T., see Iizuka, T., *TCSI April 2018 1157-1173*
Iu, H.H., see Aroudi, A.E., *TCSI July 2018 2341-2351*

+ Check author entry for co-authors

Ivanisevic, N., Rodriguez, S., and Rusu, A., A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems; *TCSI Dec. 2018 4051-4061*
Ivanovic, V.N., and Brnovic, N.R., Superior Execution Time Design of a Space/Spatial-Frequency Optimal Filter for Highly Nonstationary 2D FM Signal Estimation; *TCSI Oct. 2018 3376-3389*
Ivrlac, M.T., see Phang, S., *TCSI Sept. 2018 3027-3036*

J

Jaberipur, G., see Belghadr, A., *TCSI Sept. 2018 2878-2888*
Jacob, N.A., see Sarma, V., *TCSI June 2018 1785-1794*
Jain, A., and Pavan, S., Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback; *TCSI Feb. 2018 434-443*
Jaiswal, A., see Agrawal, A., *TCSI Dec. 2018 4219-4232*
Jang, S., see Song, S., *TCSI July 2018 2269-2278*
Jardim, E., see Thomaz, L.A., *TCSI March 2018 1003-1015*
Jayabalan, J., see Wang, Z., *TCSI April 2018 1314-1326*
Je, M., see Jeon, Y., *TCSI July 2018 2293-2303*
Jeon, Y., Kim, H., Kim, J., and Je, M., Design of an On-Silicon-Interposer Passive Equalizer for Next Generation High Bandwidth Memory With Data Rate Up To 8 Gb/s; *TCSI July 2018 2293-2303*
Jeong, D., see Cho, S., *TCSI Sept. 2018 2691-2702*
Ji, Z., see Chen, N., *TCSI Jan. 2018 84-94*
Jia, H., Prawoto, C.C., Chi, B., Wang, Z., and Yue, C.P., A Full Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS; *TCSI Sept. 2018 2657-2668*
Jia, Q., and Tang, W.K.S., Event-Triggered Protocol for the Consensus of Multi-Agent Systems With State-Dependent Nonlinear Coupling; *TCSI Feb. 2018 723-732*
Jiang, B., see Huang, Z., *TCSI July 2018 2118-2126*
Jiang, D., see Wu, Y., *TCSI Nov. 2018 3810-3820*
Jiang, H., see Weng, Z., *TCSI Feb. 2018 745-757*
Jiang, X., Yu, X., Moez, K., Elliott, D.G., and Chen, J., High-Efficiency Charge Pumps for Low-Power On-Chip Applications; *TCSI March 2018 1143-1153*
Jiang, Y., Huang, P., Zhu, D., Zhou, Z., Han, R., Liu, L., Liu, X., and Kang, J., Design and Hardware Implementation of Neuromorphic Systems With RRAM Synapses and Threshold-Controlled Neurons for Pattern Recognition; *TCSI Sept. 2018 2726-2738*
Jiao, L., Wu, Y., Zhuang, Z., Liu, Y., and Kishk, A.A., Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection; *TCSI June 2018 1875-1886*
Jin, D., see Seo, M., *TCSI Nov. 2018 3617-3627*
Jin, X., Wang, S., Qin, J., Zheng, W.X., and Kang, Y., Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation; *TCSI July 2018 2243-2255*
Jin, X., see Chen, T., *TCSI July 2018 2059-2069*
Jo, J., Kim, S., and Park, I., Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow; *TCSI Dec. 2018 4196-4207*
Johansson, H., see Pareschi, F., *TCSI March 2018 857-858*
Johansson, T., see Pasha, M.T., *TCSI Feb. 2018 758-768*
Johnson, A.P., Liu, J., Millard, A.G., Karim, S., Tyrrell, A.M., Harkin, J., Timmis, J., McDaid, L.J., and Halliday, D.M., Homeostatic Fault Tolerance in Spiking Neural Networks: A Dynamic Hardware Perspective; *TCSI Feb. 2018 687-699*
Jong, C.C., see Low, J.Y.L., *TCSI Jan. 2018 175-184*
Joo, Y.H., see Wei, Y., *TCSI Sept. 2018 2961-2969*
Jou, C., see Kuo, F., *TCSI Nov. 2018 3756-3768*
Ju, X., see Wang, Y., *TCSI July 2018 2330-2340*
Juang, Y., see Wu, J., *TCSI Sept. 2018 3099-3109*
Judy, M., Poore, N.C., Liu, P., Yang, T., Britton, C., Bolme, D.S., Mikkilineni, A.K., and Holleman, J., A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications; *TCSI Sept. 2018 2764-2773*
Jun, J., Song, J., and Kim, C., A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process; *TCSI May 2018 1567-1580*
Jung, B., see Jung, D., *TCSI Nov. 2018 3688-3697*
Jung, D., Jung, Y., Yoo, T., Yoon, D., Jung, B., Kim, T.T., and Baek, K., A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver; *TCSI Nov. 2018 3688-3697*
Jung, S., see Lee, M., *TCSI Jan. 2018 366-379*
Jung, S., see Na, T., *TCSI Jan. 2018 163-174*
Jung, Y., see Jung, D., *TCSI Nov. 2018 3688-3697*

K

- Kadlcik, L.**, and Horsky, P., A CMOS Follower-Type Voltage Regulator With a Distributed-Element Fractional-Order Control; *TCSI Sept. 2018* 2753-2763
- Kai, H.**, see Niitsu, K., *TCSI Sept. 2018* 2784-2796
- Kaiser, A.**, see Marin, R., *TCSI Jan. 2018* 343-352
- Kaiser, A.**, see Gebreyohannes, F.T., *TCSI Nov. 2018* 3956-3969
- Kang, J.**, see Jiang, Y., *TCSI Sept. 2018* 2726-2738
- Kang, S.H.**, see Na, T., *TCSI Jan. 2018* 163-174
- Kang, Y.**, see Jin, X., *TCSI July 2018* 2243-2255
- Kang, Y.**, see Ma, Q., *TCSI May 2018* 1684-1695
- Kanumalli, R.S.**, see Elmaghraby, A., *TCSI Sept. 2018* 3060-3073
- Kanumalli, R.S.**, see Sadjina, S., *TCSI Nov. 2018* 3745-3755
- Kapat, S.**, see Mandi, B.C., *TCSI April 2018* 1442-1453
- Kareppagoudr, M.**, see Payandehnia, P., *TCSI Aug. 2018* 2353-2364
- Kargaran, E.**, Manstretta, D., and Castello, R., Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications; *TCSI March 2018* 891-903
- Karim, H.R.**, see Qi, W., *TCSI Sept. 2018* 2951-2960
- Karim, S.**, see Johnson, A.P., *TCSI Feb. 2018* 687-699
- Karimi, H.R.**, see Wei, Y., *TCSI Sept. 2018* 2961-2969
- Karimi, H.R.**, see Li, Y., *TCSI Oct. 2018* 3492-3505
- Karimi, H.R.**, see Li, Y., *TCSI May 2018* 1707-1716
- Karimi-Bidhendi, A.**, Mohammadnezhad, H., Green, M.M., and Heydari, P., A Silicon-Based Low-Power Broadband Transimpedance Amplifier; *TCSI Feb. 2018* 498-509
- Kennedy, M.P.**, see Mai, D., *TCSI Oct. 2018* 3279-3290
- Kenney, J.S.**, see Caram, J.P., *TCSI Jan. 2018* 74-83
- Kessal, L.**, see Le, K., *TCSI July 2018* 2183-2195
- Khafaji, M.M.**, see Ur Rehman, S., *TCSI Nov. 2018* 3720-3733
- Khaleghi, B.**, and Asadi, H., A Resistive RAM-Based FPGA Architecture Equipped With Efficient Programming Circuitry; *TCSI July 2018* 2196-2209
- Khoshsaadat, A.**, and Moghani, J.S., Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters; *TCSI Feb. 2018* 842-853
- Ki, W.**, see Zheng, J., *TCSI April 2018* 1185-1195
- Ki, W.**, see Zheng, J., *TCSI Nov. 2018* 3800-3809
- Kilani, D.**, Mohammad, B., Alhawari, M., Saleh, H., and Ismail, M., A Dual-Output Switched Capacitor DC-DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS; *TCSI Nov. 2018* 4007-4016
- Kim, C.**, see Song, J., *TCSI Jan. 2018* 331-342
- Kim, C.**, see Jun, J., *TCSI May 2018* 1567-1580
- Kim, D.**, see Suh, B., *TCSI Sept. 2018* 2669-2678
- Kim, H.**, see Jeon, Y., *TCSI July 2018* 2293-2303
- Kim, J.**, see Lee, M., *TCSI Jan. 2018* 366-379
- Kim, J.**, see Jeon, Y., *TCSI July 2018* 2293-2303
- Kim, J.**, see Seo, M., *TCSI Nov. 2018* 3617-3627
- Kim, J.**, Wei, G., Kim, M., Ryo, H., Ri, P., and Zhu, C., A Splitting Frequencies-Based Wireless Power and Information Simultaneous Transfer Method; *TCSI Dec. 2018* 4434-4445
- Kim, J.P.**, see Na, T., *TCSI Jan. 2018* 163-174
- Kim, K.**, and Nguyen, C., A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner; *TCSI June 2018* 1850-1861
- Kim, M.**, see Kim, J., *TCSI Dec. 2018* 4434-4445
- Kim, N.**, and Rabaey, J.M., A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios; *TCSI July 2018* 2279-2292
- Kim, S.**, see Cho, S., *TCSI Sept. 2018* 2691-2702
- Kim, S.**, see Park, P., *TCSI Sept. 2018* 3049-3059
- Kim, S.**, see Oh, S., *TCSI Sept. 2018* 3037-3048
- Kim, S.**, Lee, K., and Lee, M., Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC; *TCSI Sept. 2018* 2832-2841
- Kim, S.**, Howe, P., Moreau, T., Alaghi, A., Ceze, L., and Sathe, V.S., Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors; *TCSI Dec. 2018* 4285-4298
- Kim, S.**, see Jo, J., *TCSI Dec. 2018* 4196-4207
- Kim, T.T.**, see Le Ba, N., *TCSI Oct. 2018* 3291-3299
- Kim, T.T.**, see Jung, D., *TCSI Nov. 2018* 3688-3697
- Kim, Y.**, Shin, D., Lee, J., Lee, Y., and Yoo, H., A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots; *TCSI Feb. 2018* 567-580
- Kim, Y.**, see Seo, M., *TCSI Nov. 2018* 3617-3627
- Kinget, P.R.**, see Yazicigil, R.T., *TCSI June 2018* 1775-1784
- Kishk, A.A.**, see Jiao, L., *TCSI June 2018* 1875-1886
- Kissinger, D.**, see Herzel, F., *TCSI Feb. 2018* 783-792
- Klein, L.**, see Mordakhay, A., *TCSI April 2018* 1224-1233
- Klimach, H.**, see de Oliveira, A.C., *TCSI Nov. 2018* 3790-3799
- Klinkan, A.**, see Buckel, T., *TCSI Dec. 2018* 4390-4403
- Klumperink, E.**, see Pavan, S., *TCSI Oct. 2018* 3267-3278
- Klumperink, E.**, see Pavan, S., *TCSI May 2018* 1469-1480
- Kmon, P.**, see Deptuch, G.W., *TCSI Jan. 2018* 185-197
- Ko, H.**, see Cho, S., *TCSI Sept. 2018* 2691-2702
- Kobayashi, A.**, see Niitsu, K., *TCSI Dec. 2018* 2784-2796
- Koh, K.**, see Afroz, S., *TCSI July 2018* 2070-2082
- Kokozinski, R.**, see Beer, M., *TCSI March 2018* 970-981
- Koli, K.**, see Englund, M., *TCSI Aug. 2018* 2389-2402
- Kong, D.**, and Galton, I., Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs; *TCSI Feb. 2018* 421-433
- Kong, F.**, see Huang, Y., *TCSI April 2018* 1210-1223
- Kong, L.**, Chen, Y., Boon, C.C., Mak, P., and Martins, R.P., A Wideband Inductorless dB-Linear Automatic Gain Control Amplifier Using a Single-Branch Negative Exponential Generator for Wireline Applications; *TCSI Oct. 2018* 3196-3206
- Kossel, M.**, see Yueksel, H., *TCSI Oct. 2018* 3529-3542
- Kosunen, M.**, see Englund, M., *TCSI Aug. 2018* 2389-2402
- Kosunen, M.**, see Lemberg, J., *TCSI Sept. 2018* 3085-3098
- Kothiyari, A.**, Praegman, C., and Belur, M.N., Lossless Systems Storage Function: New Results and Numerically Stable and Non-Iterative Computational Methods; *TCSI Dec. 2018* 4349-4362
- Krim, H.**, see Thomaz, L.A., *TCSI March 2018* 1003-1015
- Krishnapura, N.**, see Bhat, A., *TCSI July 2018* 2127-2138
- Krishnapura, N.**, see Mondal, I., *TCSI Sept. 2018* 2703-2714
- Krishnapura, N.**, see Kumar, R.S.A., *TCSI Nov. 2018* 3651-3661
- Ku, P.**, Shih, K., and Lu, L., A High-Voltage DAC-Based Transmitter for Coded Signals in High Frequency Ultrasound Imaging Applications; *TCSI Sept. 2018* 2797-2809
- Kuan, Y.**, see Du, L., *TCSI Jan. 2018* 198-208
- Kulkarni, J.P.**, see Motaman, S., *TCSI June 2018* 1919-1928
- Kull, L.**, see Yueksel, H., *TCSI Oct. 2018* 3529-3542
- Kumar, A.**, and Aniruddhan, S., A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks; *TCSI Oct. 2018* 3174-3185
- Kumar, D.**, Sreeram, V., and Du, X., Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems; *TCSI Aug. 2018* 2571-2580
- Kumar, M.**, see Yazicigil, R.T., *TCSI June 2018* 1775-1784
- Kumar, M.**, Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect; *TCSI Oct. 2018* 3592-3601
- Kumar, R.S.A.**, Behera, D., and Krishnapura, N., Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion; *TCSI Nov. 2018* 3651-3661
- Kundu, S.**, see Islam, M.N., *TCSI March 2018* 960-969
- Kung, C.**, see Hsu, C., *TCSI March 2018* 881-890
- Kuo, C.**, see Tsai, J., *TCSI Sept. 2018* 2810-2820
- Kuo, F.**, Babaie, M., Chen, H.R., Cho, L., Jou, C., Chen, M., and Staszewski, R.B., An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs; *TCSI Nov. 2018* 3756-3768
- Kurd, N.**, see Shen, K., *TCSI July 2018* 2109-2117
- Kurdahi, F.**, see Fouda, M.E., *TCSI Jan. 2018* 270-282
- Kvatinsky, S.**, see Haj-Ali, A., *TCSI Dec. 2018* 4258-4271
- Kvatinsky, S.**, see Wainstein, N., *TCSI May 2018* 1505-1515
- Kyochi, S.**, see Matsuoka, R., *TCSI May 2018* 1602-1613

L

- Lacaita, A.L.**, see Leoncini, M., *TCSI June 2018* 1968-1980
- Lai, M.**, see Peng, S., *TCSI Feb. 2018* 543-555
- Lai, X.**, see Zhong, L., *TCSI Dec. 2018* 4072-4085
- Lam, C.**, see Zeng, W., *TCSI Nov. 2018* 3984-3995
- Lanuzza, M.**, see De Rose, R., *TCSI March 2018* 1086-1095
- Lau, B.**, see Luo, Z., *TCSI May 2018* 1744-1757
- Laurano, C.**, see Faifer, M., *TCSI May 2018* 1652-1663
- Le, K.**, Declercq, D., Ghaffari, F., Kessal, L., Boncalo, O., and Savin, V., Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes; *TCSI July 2018* 2183-2195
- Le Ba, N.**, and Kim, T.T., An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators; *TCSI Oct. 2018* 3291-3299
- Leblebici, Y.**, see Aprile, C., *TCSI Nov. 2018* 3929-3941

- Leduc-Primeau, F.**, see Condo, C., *TCSI April 2018 1420-1431*
- Lee, C.**, see Peng, S., *TCSI Feb. 2018 543-555*
- Lee, C.**, see Shao, Q., *TCSI Aug. 2018 2455-2465*
- Lee, C.**, see Agrawal, A., *TCSI Dec. 2018 4219-4232*
- Lee, D.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Lee, H.**, see Song, J., *TCSI Jan. 2018 331-342*
- Lee, H.**, see Liu, Z., *TCSI Nov. 2018 3996-4006*
- Lee, J.**, see Kim, Y., *TCSI Feb. 2018 567-580*
- Lee, J.**, see Cho, S., *TCSI Sept. 2018 2691-2702*
- Lee, J.**, and Nguyen, C., A K -/ $K\alpha$ -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load; *TCSI Sept. 2018 2679-2690*
- Lee, K.**, see Tak, G., *TCSI Feb. 2018 485-497*
- Lee, K.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Lee, K.**, see Kim, S., *TCSI Sept. 2018 2832-2841*
- Lee, M.**, Yang, J., Park, M., Jung, S., and Kim, J., Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications; *TCSI Jan. 2018 366-379*
- Lee, M.**, see Tu, Y., *TCSI July 2018 2097-2108*
- Lee, M.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Lee, M.**, see Kim, S., *TCSI Sept. 2018 2832-2841*
- Lee, S.**, see An, T., *TCSI Oct. 2018 3227-3240*
- Lee, S.**, Shi, C., Wang, J., Sanabria, A., Osman, H., Hu, J., and Sanchez-Sinencio, E., A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform; *TCSI Oct. 2018 3445-3458*
- Lee, Y.**, see Peng, S., *TCSI Feb. 2018 543-555*
- Lee, Y.**, see Kim, Y., *TCSI Feb. 2018 567-580*
- Leech, C.**, see Vala, C.K., *TCSI Feb. 2018 606-617*
- Lemberg, J.**, Martelius, M., Kosunen, M., Roverato, E., Stadius, K., Anttila, L., Valkama, M., and Rynanen, J., Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters; *TCSI Sept. 2018 3085-3098*
- Lenero-Bardallo, J.A.**, Delgado-Restituto, M., Carmona-Galan, R., and Rodriguez-Vazquez, A., Asynchronous Spiking Pixel With Programmable Sensitivity to Illumination; *TCSI Nov. 2018 3854-3863*
- Lenero-Bardallo, J.A.**, see Farian, L., *TCSI May 2018 1543-1554*
- Leoncini, M.**, Bonfanti, A., Levantino, S., and Lacaita, A.L., Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops; *TCSI June 2018 1968-1980*
- Leung, K.N.**, see Bu, S., *TCSI Oct. 2018 3578-3591*
- Levantino, S.**, see Leoncini, M., *TCSI June 2018 1968-1980*
- Levantino, S.**, see Cherniak, D., *TCSI March 2018 914-924*
- Li, B.**, Wang, W., Liu, J., Liu, W., Yang, Q., and Ye, W., A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation; *TCSI July 2018 2169-2182*
- Li, C.**, see Wang, G., *TCSI Nov. 2018 3707-3719*
- Li, C.**, see Zhu, Y., *TCSI Nov. 2018 3606-3616*
- Li, D.**, see Basak, D., *TCSI April 2018 1196-1209*
- Li, D.**, see Fan, H., *TCSI Nov. 2018 3698-3706*
- Li, F.**, see Weng, Z., *TCSI Feb. 2018 745-757*
- Li, H.**, El-Gabaly, A.M., and Saavedra, C.E., A Low-Power Low-Noise Decade-Bandwidth Switched-Inductor Mixer With AC-Coupled LO Buffers; *TCSI Feb. 2018 510-521*
- Li, H.**, Zhan, C., and Zhang, N., A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses; *TCSI Nov. 2018 4027-4034*
- Li, J.**, Xu, Z., Hong, W., and Gu, Q.J., A Cartesian Error Feedback Architecture; *TCSI March 2018 1133-1142*
- Li, J.**, see Zhang, H., *TCSI Nov. 2018 3639-3650*
- Li, K.**, see Wang, Y., *TCSI Jan. 2018 307-318*
- Li, K.**, see Wang, Y., *TCSI Jan. 2018 307-318*
- Li, L.**, and Li, S., Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves; *TCSI Jan. 2018 154-162*
- Li, L.**, see Xia, Y., *TCSI Oct. 2018 3404-3413*
- Li, M.**, Chen, C., and Li, S., A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities; *TCSI Oct. 2018 3424-3434*
- Li, Q.**, see Shi, G., *TCSI Feb. 2018 804-817*
- Li, S.**, see Yang, J., *TCSI Feb. 2018 832-841*
- Li, S.**, see Li, L., *TCSI Jan. 2018 154-162*
- Li, S.**, see Li, M., *TCSI Oct. 2018 3424-3434*
- Li, T.**, and Wang, H., A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting; *TCSI April 2018 1406-1419*
- Li, Y.**, and Roberts, G.W., Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities; *TCSI June 2018 1805-1818*
- Li, Y.**, see Weng, Z., *TCSI Feb. 2018 745-757*
- Li, Y.**, see Du, L., *TCSI Jan. 2018 198-208*
- Li, Y.**, see Ou, J., *TCSI April 2018 1234-1244*
- Li, Y.**, Hu, J., Chen, F., Li, Z., He, Z., and Mai, R., Dual-Phase-Shift Control Scheme With Current-Stress and Efficiency Optimization for Wireless Power Transfer Systems; *TCSI Sept. 2018 3110-3121*
- Li, Y.**, Karimi, H.R., Zhong, M., Ding, S.X., and Liu, S., Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case; *TCSI Oct. 2018 3492-3505*
- Li, Y.**, Karimi, H.R., Zhang, Q., and Zhao, D., Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach; *TCSI May 2018 1707-1716*
- Li, Y.**, see Li, Y., *TCSI May 2018 1707-1716*
- Li, Z.**, see Li, Y., *TCSI Sept. 2018 3110-3121*
- Lian, Y.**, see Luo, Z., *TCSI May 2018 1744-1757*
- Liang, J.**, see Wang, F., *TCSI Sept. 2018 2992-3004*
- Liao, X.**, see Wang, Y., *TCSI July 2018 2330-2340*
- Liao, Y.**, see Tsai, J., *TCSI Sept. 2018 2810-2820*
- Lin, F.**, see Tsai, J., *TCSI Sept. 2018 2810-2820*
- Lin, J.**, see Wang, J., *TCSI June 2018 1941-1953*
- Lin, S.**, Chen, P., and Hsu, C., Modular Design of High-Efficiency Hardware Median Filter Architecture; *TCSI June 2018 1929-1940*
- Lin, S.**, see Tsai, J., *TCSI Sept. 2018 2810-2820*
- Lin, Y.**, see Chiu, C., *TCSI Aug. 2018 2491-2502*
- Lin, Y.**, and Chang, T.S., Data and Hardware Efficient Design for Convolutional Neural Network; *TCSI May 2018 1642-1651*
- Lin, Z.**, see Tang, F., *TCSI Aug. 2018 2524-2533*
- Liu, C.**, see Du, L., *TCSI Jan. 2018 198-208*
- Liu, C.Q.**, see Cao, Y., *TCSI Nov. 2018 3864-3873*
- Liu, F.**, see Tang, F., *TCSI Aug. 2018 2524-2533*
- Liu, H.**, Liu, W., Lu, Z., Tong, Q., and Liu, Z., Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs; *TCSI Feb. 2018 593-605*
- Liu, H.**, see Wang, Y., *TCSI March 2018 992-1002*
- Liu, J.**, see Johnson, A.P., *TCSI Feb. 2018 687-699*
- Liu, J.**, see Tu, Y., *TCSI July 2018 2097-2108*
- Liu, J.**, see Li, B., *TCSI July 2018 2169-2182*
- Liu, J.**, Mei, G., Wu, X., and Lu, J., Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks; *TCSI Sept. 2018 2970-2982*
- Liu, K.**, Duan, P., Duan, Z., Cai, H., and Lu, J., Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control; *TCSI May 2018 1696-1706*
- Liu, L.**, see Peng, S., *TCSI Feb. 2018 543-555*
- Liu, L.**, Mu, J., and Zhu, Z., A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation; *TCSI Jan. 2018 95-106*
- Liu, L.**, see Mu, J., *TCSI Aug. 2018 2631-2640*
- Liu, L.**, see Jiang, Y., *TCSI Sept. 2018 2726-2738*
- Liu, L.**, see Ouyang, P., *TCSI Oct. 2018 3362-3375*
- Liu, L.**, see Peng, G., *TCSI May 2018 1717-1730*
- Liu, P.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Liu, R.**, Chen, P., Peng, X., and Yu, S., X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design; *TCSI Oct. 2018 3459-3468*
- Liu, S.**, see Tien, C., *TCSI June 2018 1830-1839*
- Liu, S.**, Rabuske, T., Paramesh, J., Pileggi, L., and Fernandes, J., Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs; *TCSI Feb. 2018 458-470*
- Liu, S.**, see Shen, Y., *TCSI Jan. 2018 51-60*
- Liu, S.**, see Gonzalez-Toral, R., *TCSI April 2018 1293-1302*
- Liu, S.**, see Wang, J., *TCSI Aug. 2018 2378-2388*
- Liu, S.**, see Chien, C., *TCSI Sept. 2018 2739-2752*
- Liu, S.**, see Li, Y., *TCSI Oct. 2018 3492-3505*
- Liu, T.**, see Zhao, Y., *TCSI April 2018 1340-1348*
- Liu, T.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Liu, W.**, see Liu, H., *TCSI Feb. 2018 593-605*
- Liu, W.**, see Li, B., *TCSI July 2018 2169-2182*
- Liu, W.**, Xu, J., Wang, D., Wang, C., Montuschi, P., and Lombardi, F., Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications; *TCSI Sept. 2018 2856-2868*
- Liu, X.**, Ravichandran, K., and Sanchez-Sinencio, E., A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor; *TCSI Feb. 2018 793-803*
- Liu, X.**, see Jiang, Y., *TCSI Sept. 2018 2726-2738*
- Liu, X.**, see Wang, F., *TCSI Sept. 2018 2992-3004*
- Liu, X.**, see Dai, W., *TCSI Nov. 2018 3907-3917*
- Liu, X.**, see Zhang, H., *TCSI Nov. 2018 3639-3650*

- Liu, Y.**, see Jiao, L., *TCSI June 2018 1875-1886*
- Liu, Y.**, and Serdijn, W.A., Analysis and Design of a Passive Receiver Front-End Using an Inductive Antenna Impedance; *TCSI Feb. 2018 733-744*
- Liu, Y.**, see Shih, X., *TCSI Jan. 2018 118-129*
- Liu, Y.**, see Qiu, Y., *TCSI Aug. 2018 2503-2514*
- Liu, Y.**, see Cui, Y., *TCSI Oct. 2018 3506-3518*
- Liu, Y.**, see Shih, X., *TCSI Nov. 2018 3942-3955*
- Liu, Z.**, see Liu, H., *TCSI Feb. 2018 593-605*
- Liu, Z.**, see Wang, R., *TCSI March 2018 904-913*
- Liu, Z.**, and Lee, H., A Current-Accuracy-Enhanced Wide-Input-Range DC–DC LED Driver With Feedforward Synchronous Current Control; *TCSI Nov. 2018 3996-4006*
- Liu, Z.**, Chaganti, S.K., and Chen, D., Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit; *TCSI May 2018 1664-1674*
- Lodi, M.**, Shilnikov, A., and Storace, M., Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits; *TCSI March 2018 1028-1039*
- Lombardi, F.**, see Liu, W., *TCSI Sept. 2018 2856-2868*
- Lombardo, P.**, see Ragonese, E., *TCSI April 2018 1432-1441*
- Lombardo, P.**, see Greco, N., *TCSI Dec. 2018 4423-4433*
- Longinotti, L.**, see Chien, C., *TCSI Sept. 2018 2739-2752*
- Lopez-Vallejo, M.**, see Garcia-Redondo, F., *TCSI May 2018 1581-1590*
- Lotfi Navaii, M.**, Sadjedi, H., and Sarrafzadeh, A., Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network; *TCSI Oct. 2018 3255-3266*
- Lou, Y.**, Wang, L., and Chen, G., Toward Stronger Robustness of Network Controllability: A Snapback Network Model; *TCSI Sept. 2018 2983-2991*
- Low, J.Y.L.**, and Jong, C.C., Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design; *TCSI Jan. 2018 175-184*
- Lu, F.**, Dong, Y., and Chen, C.W., Fully-Parallel Stochastic Decoder for Rate Compatible Modulation; *TCSI Oct. 2018 3555-3567*
- Lu, H.**, see Han, K., *TCSI Feb. 2018 769-782*
- Lu, J.**, see Liu, J., *TCSI Sept. 2018 2970-2982*
- Lu, J.**, see Liu, K., *TCSI May 2018 1696-1706*
- Lu, L.**, see Ku, P., *TCSI Sept. 2018 2797-2809*
- Lu, R.**, see Wu, Y., *TCSI April 2018 1386-1394*
- Lu, W.**, see Wang, R., *TCSI March 2018 904-913*
- Lu, W.**, and Hinamoto, T., Design of Least-Squares and Minimax Composite Filters; *TCSI March 2018 982-991*
- Lu, W.G.**, see Aroudi, A.E., *TCSI July 2018 2341-2351*
- Lu, Y.**, see Bu, S., *TCSI Oct. 2018 3578-3591*
- Lu, Y.**, see Wang, G., *TCSI Nov. 2018 3707-3719*
- Lu, Y.**, see Huang, Y., *TCSI Nov. 2018 4017-4026*
- Lu, Z.**, see Liu, H., *TCSI Feb. 2018 593-605*
- Luo, Y.**, Wang, Y., Sun, H., Zha, Y., Wang, Z., and Pan, H., CORDIC-Based Architecture for Computing Nth Root and Its Implementation; *TCSI Dec. 2018 4183-4195*
- Luo, Y.**, Ho, D., and Mirabbasi, S., Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging; *TCSI May 2018 1555-1566*
- Luo, Z.**, Zeng, L., Lau, B., Lian, Y., and Heng, C., A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting; *TCSI May 2018 1744-1757*
- Luong, H.C.**, see Huang, Z., *TCSI July 2018 2118-2126*
- Lustenberger, F.**, see Pareschi, F., *TCSI March 2018 857-858*
- Luu, D.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Lyu, W.**, Xue, P., Yang, F., Yan, C., Hong, Z., Zeng, X., and Zhou, D., An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits; *TCSI June 2018 1954-1967*
- M**
- Ma, H.**, see Wang, Y., *TCSI July 2018 2330-2340*
- Ma, K.**, see Wang, Y., *TCSI July 2018 2151-2160*
- Ma, K.**, see Hu, J., *TCSI Oct. 2018 3150-3161*
- Ma, Q.**, Qin, J., Zheng, W.X., and Kang, Y., Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle; *TCSI May 2018 1684-1695*
- Ma, S.**, Feng, J., Zhao, T., and Chen, B., A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters; *TCSI June 2018 1795-1804*
- Maaskant, P.**, see Zhao, H., *TCSI Aug. 2018 2431-2442*
- Maestro, J.A.**, see Gonzalez-Toral, R., *TCSI April 2018 1293-1302*
- Maffezzoni, P.**, see Bernardini, A., *TCSI April 2018 1363-1376*
- Mafi, H.**, Yarholi, M., and Yavari, M., Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs; *TCSI Dec. 2018 4097-4109*
- Maghami, H.**, see Payandehnia, P., *TCSI Aug. 2018 2353-2364*
- Mahendra, T.V.**, see Mishra, S., *TCSI May 2018 1591-1601*
- Mai, D.**, and Kennedy, M.P., A Design Method for Nested MASH-SQ Hybrid Divider Controllers for Fractional-N Frequency Synthesizers; *TCSI Oct. 2018 3279-3290*
- Mai, R.**, see Li, Y., *TCSI Sept. 2018 3110-3121*
- Mailand, M.**, System Analysis of Six-Port-Based RF-Receivers; *TCSI Jan. 2018 319-330*
- Maity, S.**, see Das, D., *TCSI Oct. 2018 3300-3311*
- Maj, P.**, see Deptuch, G.W., *TCSI Jan. 2018 185-197*
- Mak, P.**, see Yu, W., *TCSI Jan. 2018 14-25*
- Mak, P.**, see Cheang, C., *TCSI Sept. 2018 2889-2902*
- Mak, P.**, see Chen, Y., *TCSI Sept. 2018 3014-3026*
- Mak, P.**, see Kong, L., *TCSI Oct. 2018 3196-3206*
- Makri, R.**, see Plessas, F., *TCSI July 2018 2083-2096*
- Malladi, V.N.K.**, see Beohar, N., *TCSI Feb. 2018 818-831*
- Maloberti, F.**, see Zeng, W., *TCSI Nov. 2018 3984-3995*
- Maloberti, F.**, see Aprile, C., *TCSI Nov. 2018 3929-3941*
- Maloberti, F.**, see Huang, Y., *TCSI Nov. 2018 4017-4026*
- Mandal, D.**, see Beohar, N., *TCSI Feb. 2018 818-831*
- Mandi, B.C.**, Kapat, S., and Patra, A., Unified Digital Modulation Techniques for DC–DC Converters Over a Wide Operating Range: Implementation, Modeling, and Design Guidelines; *TCSI April 2018 1442-1453*
- Mangia, M.**, Pareschi, F., Rovatti, R., and Setti, G., Adaptive Matrix Design for Boosting Compressed Sensing; *TCSI March 2018 1016-1027*
- Manivannan, S.**, and Pavan, S., Degradation of Alias Rejection in Continuous-Time Delta–Sigma Modulators by Weak Loop-Filter Nonlinearities; *TCSI Oct. 2018 3207-3215*
- Manoli, Y.**, see Nessler, S., *TCSI March 2018 870-880*
- Manstretta, D.**, see Kargaran, E., *TCSI March 2018 891-903*
- Marin, R.**, Frappe, A., and Kaiser, A., Digital Complex Delta–Sigma Modulators With Highly Configurable Notches for Multi-Standard Coexistence in Wireless Transmitters; *TCSI Jan. 2018 343-352*
- Martchovsky, A.**, and Pedrotti, K.D., Amplifier Innovations for Improvement of Rotary Traveling Wave Oscillators; *TCSI Feb. 2018 522-530*
- Martel, J.N.P.**, Muller, L.K., Carey, S.J., Muller, J., Sandamirskaya, Y., and Dudek, P., Real-Time Depth From Focus on a Programmable Focal Plane Processor; *TCSI March 2018 925-934*
- Martelius, M.**, see Lemberg, J., *TCSI Sept. 2018 3085-3098*
- Martin, H.**, Di Natale, G., and Entrena, L., Towards a Dependable True Random Number Generator With Self-Repair Capabilities; *TCSI Jan. 2018 247-256*
- Martin-Martinez, J.**, see van Santen, V.M., *TCSI Jan. 2018 293-306*
- Martins, R.P.**, see Yang, X., *TCSI June 2018 1819-1829*
- Martins, R.P.**, see Yu, W., *TCSI Jan. 2018 14-25*
- Martins, R.P.**, see Cheang, C., *TCSI Sept. 2018 2889-2902*
- Martins, R.P.**, see Chen, Y., *TCSI Sept. 2018 3014-3026*
- Martins, R.P.**, see Kong, L., *TCSI Oct. 2018 3196-3206*
- Martins, R.P.**, see Zeng, W., *TCSI Nov. 2018 3984-3995*
- Martins, R.P.**, see Wang, G., *TCSI Nov. 2018 3707-3719*
- Martins, R.P.**, see Zhu, Y., *TCSI Nov. 2018 3606-3616*
- Martins, R.P.**, see Huang, Y., *TCSI Nov. 2018 4017-4026*
- Marx, M.**, see Nessler, S., *TCSI March 2018 870-880*
- Masera, G.**, see Coppolino, G., *TCSI Dec. 2018 4413-4422*
- Mather, P.**, see Basu, R., *TCSI July 2018 2221-2231*
- Mathis, W.**, see Weber, H., *TCSI Dec. 2018 4272-4284*
- Matsuoka, R.**, Kyochi, S., Ono, S., and Okuda, M., Joint Sparsity and Order Optimization Based on ADMM With Non-Uniform Group Hard Thresholding; *TCSI May 2018 1602-1613*
- Mattausch, H.J.**, see Zhang, X., *TCSI Oct. 2018 3312-3325*
- Maviglia, A.**, see Crepaldi, M., *TCSI March 2018 1096-1109*
- Mayer, A.**, see Elmaghraby, A., *TCSI Sept. 2018 3060-3073*
- Mayer, T.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Mayr, T.**, see Benetti, M., *TCSI Nov. 2018 3842-3853*
- Mazumder, P.**, see Zheng, N., *TCSI June 2018 1897-1908*
- Mazzanti, A.**, and Bevilacqua, A., Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks; *TCSI Dec. 2018 4157-4168*
- Mazzeo, A.**, see Barbareschi, M., *TCSI Feb. 2018 700-711*
- McCullagh, J.**, An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting; *TCSI May 2018 1758-1770*
- McDaid, L.J.**, see Johnson, A.P., *TCSI Feb. 2018 687-699*
- McFarlane, N.**, see Shawkat, M.S.A., *TCSI Nov. 2018 3830-3841*

- Meher, P.K.**, see Ray, D., *TCSI Dec. 2018 4247-4257*
- Mei, G.**, see Liu, J., *TCSI Sept. 2018 2970-2982*
- Meier, K.**, see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
- Meng, F.**, see Hu, J., *TCSI Oct. 2018 3150-3161*
- Menolfi, C.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Mercier, P.P.**, see Abdulslam, A., *TCSI Aug. 2018 2617-2630*
- Merrett, G.V.**, see Vala, C.K., *TCSI Feb. 2018 606-617*
- Mi, W.**, see Zhang, S., *TCSI Feb. 2018 638-649*
- Miar-Naimi, H.**, see Hazeri, A.R., *TCSI Jan. 2018 223-234*
- Miar-Naimi, H.**, see Abbasalizadeh, S., *TCSI Aug. 2018 2534-2546*
- Miar-Naimi, H.**, see Abbasalizadeh, S., *TCSI Sept. 2018 2917-2928*
- Mikkilineni, A.K.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Milano, F.**, see Bizzarri, F., *TCSI June 2018 1840-1849*
- Milicevic, M.M.**, Milinkovic, B.S., Grujic, D.N., and Saranovac, L.V., Power and Conjugately Matched High Band UWB Power Amplifier; *TCSI Oct. 2018 3138-3149*
- Milinkovic, B.S.**, see Milicevic, M.M., *TCSI Oct. 2018 3138-3149*
- Millard, A.G.**, see Johnson, A.P., *TCSI Feb. 2018 687-699*
- Min, B.**, see Suh, B., *TCSI Sept. 2018 2669-2678*
- Ming, X.**, Hu, L., Xin, Y., Zhang, X., Gao, D., and Zhang, B., A High-Precision Resistor-Less CMOS Compensated Bandgap Reference Based on Successive Voltage-Step Compensation; *TCSI Dec. 2018 4086-4096*
- Mirabbasi, S.**, see Luo, Y., *TCSI May 2018 1555-1566*
- Mirzaie, H.**, see Payandehnia, P., *TCSI Aug. 2018 2353-2364*
- Mishra, S.**, Mahendra, T.V., Saikia, J., and Dandapat, A., A Low-Overhead Dynamic TCAM With Pipelined Read-Restore Refresh Scheme; *TCSI May 2018 1591-1601*
- Moez, K.**, see Jiang, X., *TCSI March 2018 1143-1153*
- Moez, K.**, see Saffari, P., *TCSI May 2018 1529-1542*
- Moghani, J.S.**, see Khoshsaadat, A., *TCSI Feb. 2018 842-853*
- Mohajertehrani, M.**, Savaria, Y., and Sawan, M., Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results; *TCSI June 2018 2048-2057*
- Mohamad, M.**, Nilsson, R., and Van De Beek, J., A Novel Transmitter Architecture for Spectrally-Precoded OFDM; *TCSI Aug. 2018 2592-2605*
- Mohamad, S.**, Yuan, J., and Bermak, A., Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters; *TCSI Dec. 2018 4110-4120*
- Mohammad, B.**, see Abdulslam, A., *TCSI Aug. 2018 2617-2630*
- Mohammad, B.**, see Kilani, D., *TCSI Nov. 2018 4007-4016*
- Mohammadi, B.**, Andersson, O., Nguyen, J., Ciampolini, L., Cathelin, A., and Rodrigues, J.N., A 128 kb 7T SRAM Using a Single-Cycle Boosting Mechanism in 28-nm FD-SOI; *TCSI April 2018 1257-1268*
- Mohammadnezhad, H.**, see Karimi-Bidhendi, A., *TCSI Feb. 2018 498-509*
- Molnar, A.**, see Tapen, T., *TCSI May 2018 1481-1494*
- Monaco, J.V.**, and Vindiola, M.M., Factoring Integers With a Brain-Inspired Computer; *TCSI March 2018 1051-1062*
- Mondal, I.**, and Krishnapura, N., Expansion and Compression of Analog Pulses by Bandwidth Scaling of Continuous-Time Filters; *TCSI Sept. 2018 2703-2714*
- Montuschi, P.**, see Liu, W., *TCSI Sept. 2018 2856-2868*
- Moon, U.**, see Sun, H., *TCSI Dec. 2018 4037-4050*
- Moore, C.J.**, see Wang, P., *TCSI March 2018 1063-1074*
- Mordakhay, A.**, Telepinsky, Y., Klein, L., Shor, J., and Fish, A., A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory; *TCSI April 2018 1224-1233*
- Moreau, T.**, see Kim, S., *TCSI Dec. 2018 4285-4298*
- Moreira, M.T.**, Beerel, P.A., Sartori, M.L.L., and Calazans, N.L.V., NCL Synthesis With Conventional EDA Tools: Technology Mapping and Optimization; *TCSI June 2018 1981-1993*
- Morf, T.**, see Yueksel, H., *TCSI Oct. 2018 3529-3542*
- Morgan, M.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Morik, K.**, see Buschjäger, S., *TCSI Jan. 2018 209-222*
- Mosanaei-Boorani, H.**, see Salarifard, R., *TCSI Sept. 2018 2869-2877*
- Motaman, S.**, Ghosh, S., and Kulkarni, J.P., VFAB: A Novel 2-Stage STTRAM Sensing Using Voltage Feedback and Boosting; *TCSI June 2018 1919-1928*
- Mou, S.**, see Wang, Y., *TCSI July 2018 2151-2160*
- Mou, S.**, see Hu, J., *TCSI Oct. 2018 3150-3161*
- Mozaffari, S.N.**, Tragoudas, S., and Haniotakis, T., A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions; *TCSI March 2018 946-959*
- Mu, J.**, see Liu, L., *TCSI Jan. 2018 95-106*
- Mu, J.**, and Liu, L., A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting; *TCSI Aug. 2018 2631-2640*
- Muller, J.**, see Martel, J.N.P., *TCSI March 2018 925-934*
- Muller, L.K.**, see Martel, J.N.P., *TCSI March 2018 925-934*
- Muller, P.**, see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
- N**
- Na, T.**, Song, B., Kim, J.P., Kang, S.H., and Jung, S., Data-Cell-Variation-Tolerant Dual-Mode Sensing Scheme for Deep Submicrometer STT-RAM; *TCSI Jan. 2018 163-174*
- Nabki, F.**, see Bouchami, A., *TCSI Oct. 2018 3414-3423*
- Nabki, F.**, see Bazrafshan, A., *TCSI Oct. 2018 3186-3195*
- Naderi, M.H.**, Prakash, S., and Silva-Martinez, J., Operational Transconductance Amplifier With Class-B Slow-Rate Boosting for Fast High-Performance Switched-Capacitor Circuits; *TCSI Nov. 2018 3769-3779*
- Nafria, M.M.**, see van Santen, V.M., *TCSI Jan. 2018 293-306*
- Nagahara, M.**, see Ohno, S., *TCSI April 2018 1395-1405*
- Najafizadeh, L.**, see Huang, Y., *TCSI April 2018 1210-1223*
- Nakazato, K.**, see Niitsu, K., *TCSI Sept. 2018 2784-2796*
- Napoli, E.**, see De Martino, M., *TCSI Nov. 2018 3885-3896*
- Napoli, E.**, see Esposito, D., *TCSI Dec. 2018 4169-4182*
- Narayanaswamy, V.**, see Sarma, V., *TCSI June 2018 1785-1794*
- Nasir, S.B.**, see Das, D., *TCSI Oct. 2018 3300-3311*
- Negra, R.**, see Bayram, E., *TCSI Jan. 2018 39-50*
- Neidengard, M.L.**, see Shen, K., *TCSI July 2018 2109-2117*
- Nessler, S.**, Marx, M., and Manoli, Y., A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation; *TCSI March 2018 870-880*
- Netto, S.L.**, see Thomaz, L.A., *TCSI March 2018 1003-1015*
- Neviani, A.**, see Scaramuzza, P., *TCSI Nov. 2018 3780-3789*
- Ng, H.J.**, see Herzel, F., *TCSI Feb. 2018 783-792*
- Nga, T.T.K.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Nguyen, C.**, see Kim, K., *TCSI June 2018 1850-1861*
- Nguyen, C.**, see Lee, J., *TCSI Sept. 2018 2679-2690*
- Nguyen, J.**, see Mohammadi, B., *TCSI April 2018 1257-1268*
- Nguyen, K.M.**, see Shen, K., *TCSI July 2018 2109-2117*
- Niitsu, K.**, Kobayashi, A., Nishio, Y., Hayashi, K., Ikeda, K., Ando, T., Ogawa, Y., Kai, H., Nishizawa, M., and Nakazato, K., A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT; *TCSI Sept. 2018 2784-2796*
- Nilsson, R.**, see Mohamad, M., *TCSI Aug. 2018 2592-2605*
- Ning, S.**, Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories; *TCSI Dec. 2018 4404-4412*
- Nishio, Y.**, see Niitsu, K., *TCSI Sept. 2018 2784-2796*
- Nishizawa, M.**, see Niitsu, K., *TCSI Sept. 2018 2784-2796*
- Niu, Y.**, see Wang, R., *TCSI March 2018 904-913*
- Nonis, R.**, see Cherniak, D., *TCSI March 2018 914-924*
- Nossek, J.A.**, see Phang, S., *TCSI Sept. 2018 3027-3036*
- O**
- O'Connell, I.**, see Asghar, S., *TCSI Nov. 2018 3628-3638*
- Ogawa, Y.**, see Niitsu, K., *TCSI Sept. 2018 2784-2796*
- Oh, S.**, Kim, S., Ali, I., Nga, T.T.K., Lee, D., Pu, Y., Yoo, S., Lee, M., Hwang, K.C., Yang, Y., and Lee, K., A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS; *TCSI Sept. 2018 3037-3048*
- Ohno, S.**, Ishihara, Y., and Nagahara, M., Min-Max Design of Error Feedback Quantizers Without Overloading; *TCSI April 2018 1395-1405*
- Okuda, M.**, see Matsuoka, R., *TCSI May 2018 1602-1613*
- Okuhara, H.**, Ahmed, A.B., and Amano, H., Digitally Assisted On-Chip Body Bias Tuning Scheme for Ultra Low-Power VLSI Systems; *TCSI Oct. 2018 3241-3254*
- Onabajo, M.**, see Chang, C., *TCSI March 2018 859-869*
- Ono, S.**, see Matsuoka, R., *TCSI May 2018 1602-1613*
- Osman, H.**, see Lee, S., *TCSI Oct. 2018 3445-3458*
- Ostman, K.B.**, see Englund, M., *TCSI Aug. 2018 2389-2402*
- Othman, M.A.K.**, see Sloan, J.T., *TCSI Jan. 2018 3-13*
- Ottoboni, R.**, see Faifer, M., *TCSI May 2018 1652-1663*
- Ou, J.**, Zheng, S.Y., Andrenko, A.S., Li, Y., and Tan, H., Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs; *TCSI April 2018 1234-1244*
- Ouyang, P.**, Yin, S., Liu, L., Zhang, Y., Zhao, W., and Wei, S., A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT; *TCSI Oct. 2018 3362-3375*

- Ozalevli, E.**, Femia, N., Di Capua, G., Subramonian, R., Du, D., Sankman, J., and El Markhi, M., A Cost-Effective Adaptive Rectifier for Low Power Loosely Coupled Wireless Power Transfer Systems; *TCSI July 2018 2318-2329*
- Ozev, S.**, see Beohar, N., *TCSI Feb. 2018 818-831*

P

- Pai, P.P.**, Sanki, P.K., Sahoo, S.K., De, A., Bhattacharya, S., and Banerjee, S., Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care; *TCSI Feb. 2018 663-676*
- Palmisano, G.**, see Ragonese, E., *TCSI April 2018 1432-1441*
- Palmisano, G.**, see Greco, N., *TCSI Dec. 2018 4423-4433*
- Pamarti, S.**, see Sinha, N., *TCSI Aug. 2018 2403-2410*
- Pamarti, S.**, see Hameed, S., *TCSI Sept. 2018 2842-2855*
- Pan, H.**, see Luo, Y., *TCSI Dec. 2018 4183-4195*
- Pan, Y.**, see Wu, Z., *TCSI July 2018 2232-2242*
- Pan, Z.**, Qin, C., Ye, Z., Wang, Y., and Yu, Z., Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation; *TCSI Jan. 2018 26-38*
- Panda, G.**, see Vasundhara, ., *TCSI Feb. 2018 650-662*
- Pandey, N.**, see Gupta, S., *TCSI Oct. 2018 3326-3337*
- Pandey, P.**, see Polley, A., *TCSI Feb. 2018 556-566*
- Papistas, I.A.**, and Pavlidis, V.F., Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs; *TCSI Aug. 2018 2547-2558*
- Paramesh, J.**, see Liu, S., *TCSI Feb. 2018 458-470*
- Pareschi, F.**, Lustenberger, F., Johansson, H., and Cavallaro, J., Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017); *TCSI March 2018 857-858*
- Pareschi, F.**, see Mangia, M., *TCSI March 2018 1016-1027*
- Parisi, A.**, see Ragonese, E., *TCSI April 2018 1432-1441*
- Parisi, A.**, see Greco, N., *TCSI Dec. 2018 4423-4433*
- Park, I.**, see Jo, J., *TCSI Dec. 2018 4196-4207*
- Park, J.**, see Shin, D., *TCSI Aug. 2018 2606-2616*
- Park, M.**, see Lee, M., *TCSI Jan. 2018 366-379*
- Park, P.**, and Kim, S., A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar; *TCSI Sept. 2018 3049-3059*
- Pasha, M.T.**, Haque, M.F.U., Ahmad, J., and Johansson, T., A Modified All-Digital Polar PWM Transmitter; *TCSI Feb. 2018 758-768*
- Passerone, R.**, see Benetti, M., *TCSI Nov. 2018 3842-3853*
- Patil, A.**, see Wang, Z., *TCSI April 2018 1314-1326*
- Patil, V.C.**, see Islam, M.N., *TCSI March 2018 960-969*
- Patra, A.**, see Mandi, B.C., *TCSI April 2018 1442-1453*
- Paulino, N.**, see de Melo, J.L.A., *TCSI Nov. 2018 3662-3674*
- Pavan, S.**, see Jain, A., *TCSI Feb. 2018 434-443*
- Pavan, S.**, see Manivannan, S., *TCSI Oct. 2018 3207-3215*
- Pavan, S.**, and Klumperink, E., Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network; *TCSI Oct. 2018 3267-3278*
- Pavan, S.**, and Klumperink, E., Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters; *TCSI May 2018 1469-1480*
- Pavlidis, V.F.**, see Papistas, I.A., *TCSI Aug. 2018 2547-2558*
- Payandehnia, P.**, Maghami, H., Mirzaie, H., Kareppagoudar, M., Dey, S., Tohidian, M., and Temes, G.C., A 0.49–13.3 MHz Tunable Fourth-Order LPF with Complex Poles Achieving 28.7 dBm OIP3; *TCSI Aug. 2018 2353-2364*
- Pedross-Engel, A.**, Schumacher, H., and Witrisal, K., Modeling and Identification of Ultra-Wideband Analog Multipliers; *TCSI Jan. 2018 283-292*
- Pedrotti, K.D.**, see Martchovsky, A., *TCSI Feb. 2018 522-530*
- Pehle, C.**, see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
- Pelissier, M.**, and Studer, C., Non-Uniform Wavelet Sampling for RF Analog-to-Information Conversion; *TCSI Feb. 2018 471-484*
- Peng, G.**, Liu, L., Zhou, S., Yin, S., and Wei, S., A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS; *TCSI May 2018 1717-1730*
- Peng, S.**, Lee, Y., Wang, T., Huang, H., Lai, M., Lee, C., and Liu, L., A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications; *TCSI Feb. 2018 543-555*
- Peng, X.**, see Liu, R., *TCSI Oct. 2018 3459-3468*
- Pepe, D.**, Chlis, I., and Zito, D., Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs; *TCSI May 2018 1495-1504*
- Pepe, F.**, Bevilacqua, A., and Andreani, P., On the Remarkable Performance of the Series-Resonance CMOS Oscillator; *TCSI Feb. 2018 531-542*
- Peroulis, D.**, see Hickle, M.D., *TCSI June 2018 1862-1874*

- Peroulis, D.**, see Wu, Y., *TCSI July 2018 2161-2168*
- Petra, N.**, see De Martino, M., *TCSI Nov. 2018 3885-3896*
- Petra, N.**, see Esposito, D., *TCSI Dec. 2018 4169-4182*
- Peumans, D.**, see Cooman, A., *TCSI Dec. 2018 4133-4146*
- Phang, S.**, Ivrlac, M.T., Gradoni, G., Creagh, S.C., Tanner, G., and Nossek, J.A., Near-Field MIMO Communication Links; *TCSI Sept. 2018 3027-3036*
- Picos, R.**, see Al Chawa, M.M., *TCSI Oct. 2018 3469-3480*
- Pileggi, L.**, see Liu, S., *TCSI Feb. 2018 458-470*
- Pillai, A.**, see Asghar, S., *TCSI Nov. 2018 3628-3638*
- Plessas, F.**, Souliotis, G., and Makri, R., A 76–84 GHz CMOS 4× Subharmonic Mixer With Internal Phase Correction; *TCSI July 2018 2083-2096*
- Polley, A.**, Pandey, P., Bloodworth, B.E., and Cazana, C., Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive; *TCSI Feb. 2018 556-566*
- Poore, N.C.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Poppe, D.C.**, see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
- Praagman, C.**, see Kothiyari, A., *TCSI Dec. 2018 4349-4362*
- Prakash, S.**, see Naderi, M.H., *TCSI Nov. 2018 3769-3779*
- Prasad, N.**, Chakrabarti, I., and Chattopadhyay, S., An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture; *TCSI Oct. 2018 3543-3554*
- Prawoto, C.C.**, see Jia, H., *TCSI Sept. 2018 2657-2668*
- Preissl, C.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Pretl, H.**, see Sadjina, S., *TCSI Nov. 2018 3745-3755*
- Preyler, P.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Prioli, M.**, see Faifer, M., *TCSI May 2018 1652-1663*
- Pu, Y.**, Yuan, X., and Yu, B., Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor; *TCSI Sept. 2018 2903-2916*
- Pu, Y.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Puhan, N.B.**, see Vasundhara, ., *TCSI Feb. 2018 650-662*
- Pun, K.**, see Basak, D., *TCSI April 2018 1196-1209*

Q

- Qi, W.**, Zong, G., and Karim, H.R., Observer-Based Adaptive SMC for Non-linear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor; *TCSI Sept. 2018 2951-2960*
- Qian, L.**, see Shi, G., *TCSI Feb. 2018 804-817*
- Qiao, F.**, see Fan, H., *TCSI Nov. 2018 3698-3706*
- Qiao, R.**, see Chen, J., *TCSI Feb. 2018 712-722*
- Qin, C.**, see Pan, Z., *TCSI Jan. 2018 26-38*
- Qin, H.**, see Huang, X., *TCSI Feb. 2018 628-637*
- Qin, J.**, see Jin, X., *TCSI July 2018 2243-2255*
- Qin, J.**, see Ma, Q., *TCSI May 2018 1684-1695*
- Qiu, J.**, see Wang, M., *TCSI Sept. 2018 3005-3013*
- Qiu, Y.**, Liu, Y., Zhou, J., Zhang, G., Chen, D., and Du, N., All-Digital Blind Background Calibration Technique for Any Channel Time-Interleaved ADC; *TCSI Aug. 2018 2503-2514*
- Quintana-Orti, E.S.**, see Belloch, J.A., *TCSI May 2018 1614-1627*

R

- Rabaey, J.M.**, see Kim, N., *TCSI July 2018 2279-2292*
- Rabuske, T.**, see Liu, S., *TCSI Feb. 2018 458-470*
- Ragonese, E.**, Spina, N., Castorina, A., Lombardo, P., Greco, N., Parisi, A., and Palmisano, G., A Fully Integrated Galvanically Isolated DC-DC Converter With Data Communication; *TCSI April 2018 1432-1441*
- Ragonese, E.**, see Greco, N., *TCSI Dec. 2018 4423-4433*
- Ravichandran, K.**, see Liu, X., *TCSI Feb. 2018 793-803*
- Ray, D.**, George, N.V., and Meher, P.K., Efficient Shift-Add Implementation of FIR Filters Using Variable Partition Hybrid Form Structures; *TCSI Dec. 2018 4247-4257*
- Ray, S.**, and Hella, M.M., A 53 dB Ω 7-GHz Inductorless Transimpedance Amplifier and a 1-THz+ GBP Limiting Amplifier in 0.13- μ m CMOS; *TCSI Aug. 2018 2365-2377*
- Raychowdhury, A.**, see Das, D., *TCSI Oct. 2018 3300-3311*
- Ren, W.**, and Xiong, J., Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems; *TCSI June 2018 1994-2004*
- Reviriego, P.**, see Gonzalez-Toral, R., *TCSI April 2018 1293-1302*
- Rhee, W.**, see Weng, Z., *TCSI Feb. 2018 745-757*
- Ri, P.**, see Kim, J., *TCSI Dec. 2018 4434-4445*

Rieger, R., and Rif'an, M., Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing; *TCSI Aug. 2018 2422-2430*
Rif'an, M., see Rieger, R., *TCSI Aug. 2018 2422-2430*
Rincon-Mora, G.A., see Blanco, A.A., *TCSI June 2018 2024-2034*
Roberts, G.W., see Li, Y., *TCSI June 2018 1805-1818*
Rodrigues, J.N., see Mohammadi, B., *TCSI April 2018 1257-1268*
Rodriguez, S., see Ivanisevic, N., *TCSI Dec. 2018 4051-4061*
Rodriguez-Vazquez, A., see Lenero-Bardallo, J.A., *TCSI Nov. 2018 3854-3863*
Rolain, Y., see Cooman, A., *TCSI Dec. 2018 4133-4146*
Romani, A., see Camarda, A., *TCSI April 2018 1454-1467*
Rombouts, P., see Gutierrez, E., *TCSI Feb. 2018 444-457*
Ronen, R., see Haj-Ali, A., *TCSI Dec. 2018 4258-4271*
Rovatti, R., see Mangia, M., *TCSI March 2018 1016-1027*
Roverato, E., see Lemberg, J., *TCSI Sept. 2018 3085-3098*
Roy, K., see Agrawal, A., *TCSI Dec. 2018 4219-4232*
Rubino, C., see Scaramuzza, P., *TCSI Nov. 2018 3780-3789*
Ruocco, S., see Trinh, Q., *TCSI April 2018 1269-1278*
Ruocco, S., see Trinh, Q., *TCSI Oct. 2018 3338-3348*
Rusu, A., see Ivanisevic, N., *TCSI Dec. 2018 4051-4061*
Ryo, H., see Kim, J., *TCSI Dec. 2018 4434-4445*
Ryu, S., see Seo, M., *TCSI Nov. 2018 3617-3627*
Ryynanen, J., see Englund, M., *TCSI Aug. 2018 2389-2402*
Ryynanen, J., see Lemberg, J., *TCSI Sept. 2018 3085-3098*

S

Saavedra, C.E., see Li, H., *TCSI Feb. 2018 510-521*
Sadjedi, H., see Lotfi Navaii, M., *TCSI Oct. 2018 3255-3266*
Sadjina, S., Kanumalli, R.S., Gebhard, A., Dufrene, K., Huemer, M., and Pretl, H., A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers; *TCSI Nov. 2018 3745-3755*
Sadollahi, M., Hamashita, K., Sobue, K., and Temes, G.C., An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications; *TCSI Jan. 2018 61-73*
Saeed, M., see Bayram, E., *TCSI Jan. 2018 39-50*
Saffari, P., Basaligheh, A., Sieben, V.J., and Moez, K., An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation; *TCSI May 2018 1529-1542*
Sahoo, B.D., see Sarma, V., *TCSI June 2018 1785-1794*
Sahoo, S.K., see Pai, P.P., *TCSI Feb. 2018 663-676*
Saikia, J., see Mishra, S., *TCSI May 2018 1591-1601*
Salarifard, R., Bayat-Sarmadi, S., and Mosanaei-Boorani, H., A Low-Latency and Low-Complexity Point-Multiplication in ECC; *TCSI Sept. 2018 2869-2877*
Saleh, H., see Kilani, D., *TCSI Nov. 2018 4007-4016*
Salman, E., see Yan, C., *TCSI March 2018 1075-1085*
Salthouse, C.D., see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
Samori, C., see Cherniak, D., *TCSI March 2018 914-924*
Sanabria, A., see Lee, S., *TCSI Oct. 2018 3445-3458*
Sanchez-Sinencio, E., see Liu, X., *TCSI Feb. 2018 793-803*
Sanchez-Sinencio, E., see Lee, S., *TCSI Oct. 2018 3445-3458*
Sandamirskaya, Y., see Martel, J.N.P., *TCSI March 2018 925-934*
Sang, L., Xu, Y., Wu, Y., and Chen, R., Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications; *TCSI Aug. 2018 2559-2570*
Sanki, P.K., see Pai, P.P., *TCSI Feb. 2018 663-676*
Sankman, J., see Ozalevli, E., *TCSI July 2018 2318-2329*
Saponara, S., and Ciarpì, G., IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments; *TCSI Jan. 2018 380-393*
Saranovac, L.V., see Milicevic, M.M., *TCSI Oct. 2018 3138-3149*
Sarfati, E., Frankel, B., Birk, Y., and Wimer, S., Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator; *TCSI Oct. 2018 3435-3444*
Sarkis, G., see Condo, C., *TCSI April 2018 1420-1431*
Sarma, V., Jacob, N.A., Sahoo, B.D., Narayanaswamy, V., and Choudhary, V., A 250-MHz Pipelined ADC-Based $f_s/4$ Noise-Shaping Bandpass ADC; *TCSI June 2018 1785-1794*
Sarrafzadeh, A., see Lotfi Navaii, M., *TCSI Oct. 2018 3255-3266*
Sarti, A., see Bernardini, A., *TCSI April 2018 1363-1376*
Sarti, A., see Werner, K.J., *TCSI Dec. 2018 4233-4246*
Sartori, M.L.L., see Moreira, M.T., *TCSI June 2018 1981-1993*
Sathe, V.S., see Kim, S., *TCSI Dec. 2018 4285-4298*
Savarina, Y., see Mohajertehrani, M., *TCSI June 2018 2048-2057*
Savin, V., see Le, K., *TCSI July 2018 2183-2195*
Sawan, M., see Mohajertehrani, M., *TCSI June 2018 2048-2057*
Sawan, M., see Ali, M., *TCSI June 2018 2005-2014*
Sawan, M., see Honarparvar, M., *TCSI Nov. 2018 3675-3687*
Sawigun, C., see Thanapitak, S., *TCSI Sept. 2018 2774-2783*
Sayedi, S.M., see Fardad, M., *TCSI Oct. 2018 3349-3361*
Scaramuzza, P., Rubino, C., Caruso, M., Tiebout, M., Bevilacqua, A., and Neviani, A., Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique; *TCSI Nov. 2018 3780-3789*
Schelmbauer, W., see Elmaghraby, A., *TCSI Sept. 2018 3060-3073*
Schemmel, J., see Aamir, S.A., *TCSI Dec. 2018 4299-4312*
Schormans, M., Valente, V., and Demosthenous, A., A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link; *TCSI Sept. 2018 2645-2656*
Schrey, O.M., see Beer, M., *TCSI March 2018 970-981*
Schuler, A., see Asghar, S., *TCSI Nov. 2018 3628-3638*
Schumacher, H., see Pedross-Engel, A., *TCSI Jan. 2018 283-292*
Schwartz, D., see Elmaghraby, A., *TCSI Sept. 2018 3060-3073*
Scotti, G., see Bellizia, D., *TCSI Nov. 2018 3874-3884*
Sen, S., see Adhikary, A., *TCSI Aug. 2018 2411-2421*
Sen, S., see Das, D., *TCSI Oct. 2018 3300-3311*
Sengupta, K., see Chappidi, C.R., *TCSI Jan. 2018 257-269*
Seo, J., see D'Angelo, R., *TCSI Sept. 2018 2929-2938*
Seo, M., Jin, D., Kim, Y., Hwang, S., Kim, J., and Ryu, S., A 18.5 nW 12-bit 1-kS/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μm CMOS; *TCSI Nov. 2018 3617-3627*
Serdijn, W.A., see Liu, Y., *TCSI Feb. 2018 733-744*
Serdijn, W.A., see Dezyani, M., *TCSI Oct. 2018 3568-3577*
Setti, G., see Mangia, M., *TCSI March 2018 1016-1027*
Shakeri, M., see Alizadeh, B., *TCSI Dec. 2018 4326-4335*
Shan, W., see Dai, W., *TCSI Nov. 2018 3907-3917*
Shang, X., see Dai, W., *TCSI Nov. 2018 3907-3917*
Shao, Q., Hu, Z., Basha, S.N., Zhang, Z., Wu, Z., Lee, C., and Xie, J., Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomial and Trinomial Over $GF(2^m)$; *TCSI Aug. 2018 2455-2465*
Shawkat, M.S.A., Habib, M.H.U., and McFarlane, N., An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes; *TCSI Nov. 2018 3830-3841*
Shawkey, H., see Ali, M., *TCSI June 2018 2005-2014*
Sheikhaei, S., see Dezyani, M., *TCSI Oct. 2018 3568-3577*
Shen, K., Syed Farooq, S.F., Fan, Y., Nguyen, K.M., Wang, Q., Neidengard, M.L., Kurd, N., and Elshazly, A., A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS; *TCSI July 2018 2109-2117*
Shen, Y., see Weng, Z., *TCSI Feb. 2018 745-757*
Shen, Y., Zhu, Z., Liu, S., and Yang, Y., A Reconfigurable 10-to-12-b 80-to-20-MS/s Bandwidth Scalable SAR ADC; *TCSI Jan. 2018 51-60*
Shen, Y., see Wang, J., *TCSI Aug. 2018 2378-2388*
Shi, C., see Lee, S., *TCSI Oct. 2018 3445-3458*
Shi, D., see Huang, Y., *TCSI July 2018 2256-2268*
Shi, G., Xia, Y., Wang, X., Qian, L., Ye, Y., and Li, Q., An Efficient Self-Powered Piezoelectric Energy Harvesting CMOS Interface Circuit Based on Synchronous Charge Extraction Technique; *TCSI Feb. 2018 804-817*
Shi, G., Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation; *TCSI Sept. 2018 2939-2950*
Shi, L., see Huang, Y., *TCSI July 2018 2256-2268*
Shi, P., see Wang, Y., *TCSI Oct. 2018 3519-3528*
Shi, Z., see Tang, Z., *TCSI Nov. 2018 3821-3829*
Shih, K., see Ku, P., *TCSI Sept. 2018 2797-2809*
Shih, X., Chou, H., and Liu, Y., VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications; *TCSI Jan. 2018 118-129*
Shih, X., Chou, H., and Liu, Y., Design and Implementation of Flexible and Reconfigurable SDF-Based FFT Chip Architecture With Changeable-Radix Processing Elements; *TCSI Nov. 2018 3942-3955*
Shilnikov, A., see Lodi, M., *TCSI March 2018 1028-1039*
Shin, D., see Kim, Y., *TCSI Feb. 2018 567-580*
Shin, D., and Park, J., A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver; *TCSI Aug. 2018 2606-2616*
Shoaran, M., see Aprile, C., *TCSI Nov. 2018 3929-3941*
Shor, J., see Mordakhay, A., *TCSI April 2018 1224-1233*
Shyu, Y., see Hsu, C., *TCSI March 2018 881-890*
Siddons, D.P., see Deptuch, G.W., *TCSI Jan. 2018 185-197*
Sieben, V.J., see Saffari, P., *TCSI May 2018 1529-1542*

- Sienko, M.**, Loop-Filter Design and Analysis for Delta-Sigma Modulators and Oversampled IIR Filters; *TCSI Dec. 2018* 4121-4132
- Silva-Martinez, J.**, see Naderi, M.H., *TCSI Nov. 2018* 3769-3779
- Sin, S.**, see Zeng, W., *TCSI Nov. 2018* 3984-3995
- Singh, K.**, Analysis and Modeling of Chopping Phase Non-Overlap in Continuous-Time $\Delta\Sigma$ Modulators; *TCSI Oct. 2018* 3216-3226
- Singh, V.K.**, Ho, W., and Gharpurey, R., A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering; *TCSI July 2018* 2304-2317
- Sinha, N.**, and Pamarti, S., Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components; *TCSI Aug. 2018* 2403-2410
- Siracusano, G.**, see De Rose, R., *TCSI March 2018* 1086-1095
- Sloan, J.T.**, Othman, M.A.K., and Capolino, F., Theory of Double Ladder Lumped Circuits With Degenerate Band Edge; *TCSI Jan. 2018* 3-13
- Smith, J.O.**, see Werner, K.J., *TCSI Dec. 2018* 4233-4246
- So, H.C.**, see Zhang, S., *TCSI Feb. 2018* 638-649
- Sobue, K.**, see Sadollahi, M., *TCSI Jan. 2018* 61-73
- Sobue, K.**, see Sun, H., *TCSI Dec. 2018* 4037-4050
- Solomko, V.**, Bauder, R., and Thomas, A., Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices; *TCSI May 2018* 1731-1743
- Soltan, A.**, see Zhao, H., *TCSI Aug. 2018* 2431-2442
- Song, B.**, see Na, T., *TCSI Jan. 2018* 163-174
- Song, H.**, see Zhong, L., *TCSI Dec. 2018* 4072-4085
- Song, J.**, Hwang, S., Lee, H., and Kim, C., A 1-V 10-Gb/s/spin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces; *TCSI Jan. 2018* 331-342
- Song, J.**, see Jun, J., *TCSI May 2018* 1567-1580
- Song, S.**, Choo, K.D., Chen, T., Jang, S., Flynn, M.P., and Zhang, Z., A Maximum-Likelihood Sequence Detection Powered ADC-Based Serial Link; *TCSI July 2018* 2269-2278
- Sonkule, S.R.**, see D'Angelo, R., *TCSI Sept. 2018* 2929-2938
- Souliotis, G.**, see Plessas, F., *TCSI July 2018* 2083-2096
- Spina, N.**, see Ragonese, E., *TCSI April 2018* 1432-1441
- Spina, N.**, see Greco, N., *TCSI Dec. 2018* 4423-4433
- Springer, A.**, see Buckel, T., *TCSI Dec. 2018* 4390-4403
- Sreeram, V.**, see Kumar, D., *TCSI Aug. 2018* 2571-2580
- Srinivas, M.B.**, see Vudadha, C., *TCSI Dec. 2018* 4313-4325
- Stadius, K.**, see Englund, M., *TCSI Aug. 2018* 2389-2402
- Stadius, K.**, see Lemberg, J., *TCSI Sept. 2018* 3085-3098
- Stas, F.**, and Bol, D., A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS; *TCSI March 2018* 935-945
- Staszewski, R.B.**, see Chen, P., *TCSI Nov. 2018* 3734-3744
- Staszewski, R.B.**, see Kuo, F., *TCSI Nov. 2018* 3756-3768
- Steimer, A.**, see Chien, C., *TCSI Sept. 2018* 2739-2752
- Steyaert, M.S.J.**, see Baumgratz, F.D., *TCSI Aug. 2018* 2581-2591
- Storace, M.**, see Lodi, M., *TCSI March 2018* 1028-1039
- Stradmann, Y.**, see Amir, S.A., *TCSI Dec. 2018* 4299-4312
- Strollo, A.G.M.**, see De Martino, M., *TCSI Nov. 2018* 3885-3896
- Strollo, A.G.M.**, see Esposito, D., *TCSI Dec. 2018* 4169-4182
- Studer, C.**, see Pelissier, M., *TCSI Feb. 2018* 471-484
- Studer, C.**, see Castaneda, O., *TCSI March 2018* 1120-1132
- Su, H.**, see Wu, Z., *TCSI July 2018* 2232-2242
- Su, J.**, see Du, L., *TCSI Jan. 2018* 198-208
- Su, S.W.**, see Wang, Y., *TCSI July 2018* 2330-2340
- Subramonian, R.**, see Ozalevli, E., *TCSI July 2018* 2318-2329
- Suh, B.**, Kim, D., and Min, B., A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances; *TCSI Sept. 2018* 2669-2678
- Sun, H.**, Sobue, K., Hamashita, K., and Moon, U., An Oversampling Stochastic ADC Using VCO-Based Quantizers; *TCSI Dec. 2018* 4037-4050
- Sun, H.**, see Luo, Y., *TCSI Dec. 2018* 4183-4195
- Sun, Q.**, see Zhang, H., *TCSI Nov. 2018* 3639-3650
- Sun, X.**, see Zhao, H., *TCSI Aug. 2018* 2431-2442
- Sun, Y.**, see Zhu, H., *TCSI Dec. 2018* 4062-4071
- Surya, A.**, see Vudadha, C., *TCSI Dec. 2018* 4313-4325
- Syed Farooq, S.F.**, see Shen, K., *TCSI July 2018* 2109-2117
- Tak, G.**, and Lee, K., A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis; *TCSI Feb. 2018* 485-497
- Tan, H.**, see Ou, J., *TCSI April 2018* 1234-1244
- Tan, N.**, see Tang, Z., *TCSI Nov. 2018* 3821-3829
- Tang, F.**, Wang, Z., Xia, Y., Liu, F., Zhou, X., Hu, S., Lin, Z., and Bermak, A., An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor; *TCSI Aug. 2018* 2524-2533
- Tang, W.K.S.**, see Jia, Q., *TCSI Feb. 2018* 723-732
- Tang, Y.**, see Wu, Z., *TCSI July 2018* 2232-2242
- Tang, Z.**, Fang, Y., Yu, X., Shi, Z., and Tan, N., A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems; *TCSI Nov. 2018* 3821-3829
- Tanner, G.**, see Phang, S., *TCSI Sept. 2018* 3027-3036
- Tapen, T.**, Boynton, Z., Yuksel, H., Apsel, A., and Molnar, A., The Impact of LO Phase Noise in N-Path Filters; *TCSI May 2018* 1481-1494
- Tapson, J.**, see Thakur, C.S., *TCSI April 2018* 1174-1184
- Tartagni, M.**, see Camarda, A., *TCSI April 2018* 1454-1467
- Tavernier, F.**, see Baumgratz, F.D., *TCSI Aug. 2018* 2581-2591
- Telepinsky, Y.**, see Mordakhay, A., *TCSI April 2018* 1224-1233
- Teman, A.**, see Giterman, R., *TCSI April 2018* 1245-1256
- Teman, A.**, see Giterman, R., *TCSI Dec. 2018* 4208-4218
- Temes, G.C.**, see Sadollahi, M., *TCSI Jan. 2018* 61-73
- Temes, G.C.**, see Payandehnia, P., *TCSI Aug. 2018* 2353-2364
- Tertinek, S.**, see Buckel, T., *TCSI Dec. 2018* 4390-4403
- Thakur, C.S.**, Wang, R., Hamilton, T.J., Etienne-Cummings, R., Tapson, J., and van Schaik, A., An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications; *TCSI April 2018* 1174-1184
- Thanapitak, S.**, and Sawigun, C., A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design; *TCSI Sept. 2018* 2774-2783
- Thangkhiew, P.L.**, Gharpinde, R., and Datta, K., Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates; *TCSI Aug. 2018* 2466-2476
- Thomas, A.**, see Solomko, V., *TCSI May 2018* 1731-1743
- Thomaz, L.A.**, Jardim, E., da Silva, A.F., da Silva, E.A.B., Netto, S.L., and Krim, H., Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis; *TCSI March 2018* 1003-1015
- Tiebout, M.**, see Scaramuzza, P., *TCSI Nov. 2018* 3780-3789
- Tien, C.**, and Liu, S., A Digital Phase-Locked Loop With Background Supply Voltage Sensitivity Minimization; *TCSI June 2018* 1830-1839
- Timmis, J.**, see Johnson, A.P., *TCSI Feb. 2018* 687-699
- Tohidian, M.**, see Payandehnia, P., *TCSI Aug. 2018* 2353-2364
- Toifl, T.**, see Yuksel, H., *TCSI Oct. 2018* 3529-3542
- Toledo de la Garza, K.**, Torres Gomez, J., de Lamare, R.C., and Fernandez-Getino Garcia, M.J., A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters; *TCSI April 2018* 1303-1313
- Tomasello, R.**, see De Rose, R., *TCSI March 2018* 1086-1095
- Tong, Q.**, see Liu, H., *TCSI Feb. 2018* 593-605
- Tornig, C.**, see Bukreyev, I., *TCSI June 2018* 2035-2047
- Torres, L.**, see Barbareschi, M., *TCSI Feb. 2018* 700-711
- Torres Gomez, J.**, see Toledo de la Garza, K., *TCSI April 2018* 1303-1313
- Toscani, S.**, see Faifer, M., *TCSI May 2018* 1652-1663
- Tragoudas, S.**, see Mozaffari, S.N., *TCSI March 2018* 946-959
- Tran, N.**, see D'Angelo, R., *TCSI Sept. 2018* 2929-2938
- Trifiletti, A.**, see Bellizia, D., *TCSI Nov. 2018* 3874-3884
- Trimpl, M.**, see Deptuch, G.W., *TCSI Jan. 2018* 185-197
- Trinh, Q.**, Ruocco, S., and Alioto, M., Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs; *TCSI April 2018* 1269-1278
- Trinh, Q.**, Ruocco, S., and Alioto, M., Time-Based Sensing for Reference-Less and Robust Read in STT-MRAM Memories; *TCSI Oct. 2018* 3338-3348
- Tsai, J.**, Kuo, C., Lin, S., Lin, F., and Liao, Y., A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management; *TCSI Sept. 2018* 2810-2820
- Tsai, M.**, Chen, T., Chiu, H., Wu, T., and Wei, C., Monolithic Airflow Detection Chip With Automatic DC Offset Calibration; *TCSI Jan. 2018* 107-117
- Tse, C.K.**, see Wang, S., *TCSI Oct. 2018* 3390-3403
- Tseng, H.**, see Hsu, C., *TCSI March 2018* 881-890
- Tsui, C.**, see Zheng, J., *TCSI April 2018* 1185-1195
- Tsui, C.**, see Zheng, J., *TCSI Nov. 2018* 3800-3809

T

Taherzadeh-Sani, M., see Bazrafshan, A., *TCSI Oct. 2018* 3186-3195

+ Check author entry for co-authors

- Tu, Y.**, Cheng, K., Lee, M., and Liu, J., A Power-Saving Adaptive Equalizer With a Digital-Controlled Self-Slope Detection; *TCSI July 2018* 2097-2108
- Ture, K.**, see Aprile, C., *TCSI Nov. 2018* 3929-3941
- Tyrrell, A.M.**, see Johnson, A.P., *TCSI Feb. 2018* 687-699

U

- U, S.**, see Yang, X., *TCSI June 2018* 1819-1829
- Ul Haq, F.**, see Englund, M., *TCSI Aug. 2018* 2389-2402
- Un, K.**, see Yu, W., *TCSI Jan. 2018* 14-25
- Unal, B.**, Akoglu, A., Ghaffari, F., and Vasic, B., Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders; *TCSI Sept. 2018* 3074-3084
- Ur Rehman, S.**, Khafaji, M.M., Carta, C., and Ellinger, F., A 25-Gb/s 270-mW Time-to-Digital Converter-Based $8\times$ Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS; *TCSI Nov. 2018* 3720-3733
- Uy, W.**, see D'Angelo, R., *TCSI Sept. 2018* 2929-2938

V

- Vala, C.K.**, Immadisetty, K., Acharyya, A., Leech, C., Balagopal, V., Merrett, G.V., and Al-Hashimi, B.M., High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation; *TCSI Feb. 2018* 606-617
- Valente, V.**, see Schormans, M., *TCSI Sept. 2018* 2645-2656
- Valkama, M.**, see Lemberg, J., *TCSI Sept. 2018* 3085-3098
- Valle, M.**, see Ibrahim, A., *TCSI Nov. 2018* 3897-3906
- Van, L.**, see Chiu, C., *TCSI Aug. 2018* 2491-2502
- Van De Beek, J.**, see Mohamad, M., *TCSI Aug. 2018* 2592-2605
- van Santen, V.M.**, Martin-Martinez, J., Amrouch, H., Nafria, M.M., and Henkel, J., Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV; *TCSI Jan. 2018* 293-306
- van Schaik, A.**, see Thakur, C.S., *TCSI April 2018* 1174-1184
- Vandersteven, G.**, see Cooman, A., *TCSI Dec. 2018* 4133-4146
- Vardaxoglou, J.C.**, see Hou, Z.J., *TCSI July 2018* 2139-2150
- Vasic, B.**, see Unal, B., *TCSI Sept. 2018* 3074-3084
- Vasundhara, .**, Puhan, N.B., and Panda, G., De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids; *TCSI Feb. 2018* 650-662
- Venerus, C.**, see Alvarez-Fontecilla, E., *TCSI Oct. 2018* 3125-3137
- Vindiola, M.M.**, see Monaco, J.V., *TCSI March 2018* 1051-1062
- Vudadha, C.**, Surya, A., Agrawal, S., and Srinivas, M.B., Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers; *TCSI Dec. 2018* 4313-4325

W

- Wahid, K.A.**, see Hasan, M.M., *TCSI Aug. 2018* 2515-2523
- Wainstein, N.**, and Kvatinsky, S., TIME—Tunable Inductors Using MEMristors; *TCSI May 2018* 1505-1515
- Wald, N.**, see Haj-Ali, A., *TCSI Dec. 2018* 4258-4271
- Walling, J.S.**, see Holzer, K.D., *TCSI Sept. 2018* 2715-2725
- Wan, X.**, Wang, Z., Han, Q., and Wu, M., Finite-Time H_∞ State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols; *TCSI Oct. 2018* 3481-3491
- Wang, C.**, see Liu, W., *TCSI Sept. 2018* 2856-2868
- Wang, D.**, see Liu, W., *TCSI Sept. 2018* 2856-2868
- Wang, F.**, Wang, Z., Liang, J., and Liu, X., Resilient Filtering for Linear Time-Varying Repetitive Processes Under Uniform Quantizations and Round-Robin Protocols; *TCSI Sept. 2018* 2992-3004
- Wang, G.**, Li, C., Zhu, Y., Zhong, J., Lu, Y., Chan, C., and Martins, R.P., Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC; *TCSI Nov. 2018* 3707-3719
- Wang, H.**, see Li, T., *TCSI April 2018* 1406-1419
- Wang, H.**, Yu, W., Wen, G., and Chen, G., Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks; *TCSI Dec. 2018* 4336-4348
- Wang, J.**, Lin, J., and Wang, Z., Efficient Hardware Architectures for Deep Convolutional Neural Network; *TCSI June 2018* 1941-1953
- Wang, J.**, see Huang, Y., *TCSI July 2018* 2256-2268

- Wang, J.**, Liu, S., Shen, Y., and Zhu, Z., Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique; *TCSI Aug. 2018* 2378-2388
- Wang, J.**, see Chien, Y., *TCSI Aug. 2018* 2443-2454
- Wang, J.**, see Lee, S., *TCSI Oct. 2018* 3445-3458
- Wang, L.**, see Lou, Y., *TCSI Sept. 2018* 2983-2991
- Wang, L.**, see Wang, S., *TCSI Oct. 2018* 3390-3403
- Wang, M.**, Qiu, J., and Feng, G., Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements; *TCSI Sept. 2018* 3005-3013
- Wang, P.**, Moore, C.J., Gharehbaghi, A.M., and Fujita, M., An ATPG Method for Double Stuck-At Faults by Analyzing Propagation Paths of Single Faults; *TCSI March 2018* 1063-1074
- Wang, Q.**, see Shen, K., *TCSI July 2018* 2109-2117
- Wang, R.**, see Thakur, C.S., *TCSI April 2018* 1174-1184
- Wang, R.**, Lu, W., Zhao, M., Niu, Y., Liu, Z., Zhang, Y., and Chen, Z., A Sub-1ppm/C Current-Mode CMOS Bandgap Reference With Piecewise Curvature Compensation; *TCSI March 2018* 904-913
- Wang, S.**, and Huang, J., Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction; *TCSI April 2018* 1377-1385
- Wang, S.**, see Jin, X., *TCSI July 2018* 2243-2255
- Wang, S.**, Dang, L., Chen, B., Duan, S., Wang, L., and Tse, C.K., Random Fourier Filters Under Maximum Correntropy Criterion; *TCSI Oct. 2018* 3390-3403
- Wang, T.**, see Peng, S., *TCSI Feb. 2018* 543-555
- Wang, W.**, see Li, B., *TCSI July 2018* 2169-2182
- Wang, X.**, see Zhang, Y., *TCSI Feb. 2018* 677-686
- Wang, X.**, see Shi, G., *TCSI Feb. 2018* 804-817
- Wang, X.**, see Wang, Z., *TCSI July 2018* 2210-2220
- Wang, Y.**, Li, K., Zhang, J., and Li, K., Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM; *TCSI Jan. 2018* 307-318
- Wang, Y.**, see Pan, Z., *TCSI Jan. 2018* 26-38
- Wang, Y.**, Liu, H., and Chau, L., Single Underwater Image Restoration Using Adaptive Attenuation-Curve Prior; *TCSI March 2018* 992-1002
- Wang, Y.**, Dong, L., Liao, X., Ju, X., Su, S.W., and Ma, H., A Pulse Energy Injection Inverter for the Switch-Mode Inductive Power Transfer System; *TCSI July 2018* 2330-2340
- Wang, Y.**, Ma, K., and Mou, S., A Transformer-Based 3-dB Differential Coupler; *TCSI July 2018* 2151-2160
- Wang, Y.**, Shi, P., and Yan, H., Reliable Control of Fuzzy Singularly Perturbed Systems and Its Application to Electronic Circuits; *TCSI Oct. 2018* 3519-3528
- Wang, Y.**, see Luo, Y., *TCSI Dec. 2018* 4183-4195
- Wang, Z.**, see Wang, J., *TCSI June 2018* 1941-1953
- Wang, Z.**, see Weng, Z., *TCSI Feb. 2018* 745-757
- Wang, Z.**, Chen, Y., Patil, A., Jayabalan, J., Zhang, X., Chang, C., and Basu, A., Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning; *TCSI April 2018* 1314-1326
- Wang, Z.**, and Wang, X., A Novel Memristor-Based Circuit Implementation of Full-Function Pavlov Associative Memory Accorded With Biological Feature; *TCSI July 2018* 2210-2220
- Wang, Z.**, see Tang, F., *TCSI Aug. 2018* 2524-2533
- Wang, Z.**, see Jia, H., *TCSI Sept. 2018* 2657-2668
- Wang, Z.**, see Wang, F., *TCSI Sept. 2018* 2992-3004
- Wang, Z.**, see Wan, X., *TCSI Oct. 2018* 3481-3491
- Wang, Z.**, see Luo, Y., *TCSI Dec. 2018* 4183-4195
- Weber, H.**, and Mathis, W., Analysis and Design of Nonlinear Circuits With a Self-Consistent Carleman Linearization; *TCSI Dec. 2018* 4272-4284
- Wei, C.**, see Tsai, M., *TCSI Jan. 2018* 107-117
- Wei, C.**, see Wu, J., *TCSI Sept. 2018* 3099-3109
- Wei, G.**, see Kim, J., *TCSI Dec. 2018* 4434-4445
- Wei, S.**, see Ouyang, P., *TCSI Oct. 2018* 3362-3375
- Wei, S.**, see Peng, G., *TCSI May 2018* 1717-1730
- Wei, Y.**, Yu, H., Karimi, H.R., and Joo, Y.H., New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems; *TCSI Sept. 2018* 2961-2969
- Weigel, R.**, see Elmaghraby, A., *TCSI Sept. 2018* 3060-3073
- Weigel, R.**, see Buckel, T., *TCSI Dec. 2018* 4390-4403
- Weizman, Y.**, see Giterman, R., *TCSI Dec. 2018* 4208-4218
- Wen, G.**, see Wang, H., *TCSI Dec. 2018* 4336-4348
- Wen, G.**, see Fu, J., *TCSI Dec. 2018* 4363-4375
- Weng, Z.**, Jiang, H., Dong, J., Li, Y., Zheng, J., Shen, Y., Li, F., Rhee, W., and Wang, Z., 400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna; *TCSI Feb. 2018* 745-757

- Werner, K.J.**, Bernardini, A., Smith, J.O., and Sarti, A., Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters; *TCSI Dec. 2018 4233-4246*
- Wey, I.**, see Wu, B., *TCSI Jan. 2018 141-153*
- Wicpalek, C.**, see Buckel, T., *TCSI Dec. 2018 4390-4403*
- Wieczorek, P.Z.**, and Golofit, K., True Random Number Generator Based on Flip-Flop Resolve Time Instability Boosted by Random Chaotic Source; *TCSI April 2018 1279-1292*
- Wimer, S.**, see Sarfati, E., *TCSI Oct. 2018 3435-3444*
- Witrisal, K.**, see Pedross-Engel, A., *TCSI Jan. 2018 283-292*
- Wong, M.**, see Zeng, W., *TCSI Nov. 2018 3984-3995*
- Wong, S.**, see Zhu, H., *TCSI Dec. 2018 4062-4071*
- Wright, J.**, see Yazicigil, R.T., *TCSI June 2018 1775-1784*
- Wu, B.**, and Wey, I., Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement; *TCSI Jan. 2018 141-153*
- Wu, G.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Wu, J.**, Wei, C., and Juang, Y., A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique; *TCSI Sept. 2018 3099-3109*
- Wu, K.**, see Zhao, Y., *TCSI April 2018 1340-1348*
- Wu, L.**, see Chen, P., *TCSI Nov. 2018 3734-3744*
- Wu, M.**, see Wan, X., *TCSI Oct. 2018 3481-3491*
- Wu, T.**, see Tsai, M., *TCSI Jan. 2018 107-117*
- Wu, X.**, see Liu, J., *TCSI Sept. 2018 2970-2982*
- Wu, Y.**, see Jiao, L., *TCSI June 2018 1875-1886*
- Wu, Y.**, and Lu, R., Event-Based Control for Network Systems via Integral Quadratic Constraints; *TCSI April 2018 1386-1394*
- Wu, Y.**, Abu Khater, M., and Peroulis, D., An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer; *TCSI July 2018 2161-2168*
- Wu, Y.**, see Sang, L., *TCSI Aug. 2018 2559-2570*
- Wu, Y.**, Jiang, D., Bardill, A., de Geli, S., Bayford, R., and Demosthenous, A., A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring; *TCSI Nov. 2018 3810-3820*
- Wu, Z.**, Xu, Y., Pan, Y., Su, H., and Tang, Y., Event-Triggered Control for Consensus Problem in Multi-Agent Systems With Quantized Relative State Measurements and External Disturbance; *TCSI July 2018 2232-2242*
- Wu, Z.**, see Shao, Q., *TCSI Aug. 2018 2455-2465*
- X**
- Xi, T.**, see Guo, S., *TCSI Oct. 2018 3162-3173*
- Xia, Y.**, see Shi, G., *TCSI Feb. 2018 804-817*
- Xia, Y.**, see Tang, F., *TCSI Aug. 2018 2524-2533*
- Xia, Y.**, Yu, D., Li, L., Yang, H., and Xie, W., Data-Driven Filtering for Nonlinear Systems With Bounded Noises and Quantized Measurements; *TCSI Oct. 2018 3404-3413*
- Xie, J.**, see Shao, Q., *TCSI Aug. 2018 2455-2465*
- Xie, W.**, see Xia, Y., *TCSI Oct. 2018 3404-3413*
- Xin, Y.**, see Ming, X., *TCSI Dec. 2018 4086-4096*
- Xiong, J.**, see Ren, W., *TCSI June 2018 1994-2004*
- Xu, D.**, see Zhong, L., *TCSI Dec. 2018 4072-4085*
- Xu, J.**, see Liu, W., *TCSI Sept. 2018 2856-2868*
- Xu, Y.**, see Wu, Z., *TCSI July 2018 2232-2242*
- Xu, Y.**, see Sang, L., *TCSI Aug. 2018 2559-2570*
- Xu, Z.**, see Li, J., *TCSI March 2018 1133-1142*
- Xue, P.**, see Lyu, W., *TCSI June 2018 1954-1967*
- Xue, Q.**, see Hou, Z.J., *TCSI July 2018 2139-2150*
- Yang, J.**, Cui, H., Li, S., and Zolotas, A., Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer; *TCSI Feb. 2018 832-841*
- Yang, J.**, see Lee, M., *TCSI Jan. 2018 366-379*
- Yang, J.**, see Dai, W., *TCSI Nov. 2018 3907-3917*
- Yang, Q.**, see Li, B., *TCSI July 2018 2169-2182*
- Yang, T.**, see Judy, M., *TCSI Sept. 2018 2764-2773*
- Yang, X.**, Zhu, Y., Chan, C., U, S., and Martins, R.P., Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology; *TCSI June 2018 1819-1829*
- Yang, Y.**, see Shen, Y., *TCSI Jan. 2018 51-60*
- Yang, Y.**, see Hou, Z.J., *TCSI July 2018 2139-2150*
- Yang, Y.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Yang, Y.**, see Zhu, H., *TCSI Dec. 2018 4062-4071*
- Yao, L.**, see Chen, N., *TCSI Jan. 2018 84-94*
- Yargholi, M.**, see Mafi, H., *TCSI Dec. 2018 4097-4109*
- Yavari, M.**, see Mafi, H., *TCSI Dec. 2018 4097-4109*
- Yazdian, E.**, see Fardad, M., *TCSI Oct. 2018 3349-3361*
- Yazicigil, R.T.**, Haque, T., Kumar, M., Yuan, J., Wright, J., and Kinget, P.R., How to Make Analog-to-Information Converters Work in Dynamic Spectrum Environments With Changing Sparsity Conditions; *TCSI June 2018 1775-1784*
- Ye, W.**, see Li, B., *TCSI July 2018 2169-2182*
- Ye, Y.**, see Shi, G., *TCSI Feb. 2018 804-817*
- Ye, Z.**, see Pan, Z., *TCSI Jan. 2018 26-38*
- Yeh, C.**, Chu, T., Chen, C., and Yang, C., A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems; *TCSI Nov. 2018 3918-3928*
- Yilmaz, G.**, see Aprile, C., *TCSI Nov. 2018 3929-3941*
- Yin, S.**, see Ouyang, P., *TCSI Oct. 2018 3362-3375*
- Yin, S.**, see Peng, G., *TCSI May 2018 1717-1730*
- Yoo, H.**, see Kim, Y., *TCSI Feb. 2018 567-580*
- Yoo, S.**, see Oh, S., *TCSI Sept. 2018 3037-3048*
- Yoo, T.**, see Jung, D., *TCSI Nov. 2018 3688-3697*
- Yoon, D.**, see Jung, D., *TCSI Nov. 2018 3688-3697*
- Yu, B.**, see Pu, Y., *TCSI Sept. 2018 2903-2916*
- Yu, D.**, see Xia, Y., *TCSI Oct. 2018 3404-3413*
- Yu, H.**, see Wei, Y., *TCSI Sept. 2018 2961-2969*
- Yu, S.**, see Liu, R., *TCSI Oct. 2018 3459-3468*
- Yu, W.**, Un, K., Mak, P., and Martins, R.P., A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver; *TCSI Jan. 2018 14-25*
- Yu, W.**, see Wang, H., *TCSI Dec. 2018 4336-4348*
- Yu, W.**, see Fu, J., *TCSI Dec. 2018 4363-4375*
- Yu, X.**, see Jiang, X., *TCSI March 2018 1143-1153*
- Yu, X.**, see Tang, Z., *TCSI Nov. 2018 3821-3829*
- Yu, Z.**, see Pan, Z., *TCSI Jan. 2018 26-38*
- Yuan, J.**, see Yazicigil, R.T., *TCSI June 2018 1775-1784*
- Yuan, J.**, see Mohamad, S., *TCSI Dec. 2018 4110-4120*
- Yuan, W.**, see Holzer, K.D., *TCSI Sept. 2018 2715-2725*
- Yuan, X.**, see Pu, Y., *TCSI Sept. 2018 2903-2916*
- Yue, C.P.**, see Jia, H., *TCSI Sept. 2018 2657-2668*
- Yueksel, H.**, Braendli, M., Burg, A., Cherubini, G., Cideciyan, R.D., Francese, P.A., Furrer, S., Kossel, M., Kull, L., Luu, D., Menolfi, C., Morf, T., and Toifl, T., Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders; *TCSI Oct. 2018 3529-3542*
- Yuksel, H.**, see Tapen, T., *TCSI May 2018 1481-1494*
- Z**

- Y**
- Yahya, E.**, see Agwa, S., *TCSI June 2018 1909-1918*
- Yan, C.**, see Lyu, W., *TCSI June 2018 1954-1967*
- Yan, C.**, and Salman, E., Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits; *TCSI March 2018 1075-1085*
- Yan, H.**, see Wang, Y., *TCSI Oct. 2018 3519-3528*
- Yang, C.**, see Yeh, C., *TCSI Nov. 2018 3918-3928*
- Yang, F.**, see Lyu, W., *TCSI June 2018 1954-1967*
- Yang, H.**, see Xia, Y., *TCSI Oct. 2018 3404-3413*

- Zanoni, M.**, see Faifer, M., *TCSI May 2018 1652-1663*
- Zekry, A.**, see Ali, M., *TCSI June 2018 2005-2014*
- Zeng, L.**, see Luo, Z., *TCSI May 2018 1744-1757*
- Zeng, W.**, Lam, C., Sin, S., Maloberti, F., Wong, M., and Martins, R.P., A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation; *TCSI Nov. 2018 3984-3995*
- Zeng, X.**, see Lyu, W., *TCSI June 2018 1954-1967*
- Zha, Y.**, see Luo, Y., *TCSI Dec. 2018 4183-4195*
- Zhan, C.**, see Li, H., *TCSI Nov. 2018 4027-4034*
- Zhang, B.**, see Huang, X., *TCSI Feb. 2018 628-637*
- Zhang, B.**, see Ming, X., *TCSI Dec. 2018 4086-4096*
- Zhang, G.**, see Qiu, Y., *TCSI Aug. 2018 2503-2514*

Zhang, H., Sun, Q., Li, J., Liu, X., and Zhang, R., A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC; *TCSI Nov. 2018 3639-3650*

Zhang, H., see Zhang, H., *TCSI Nov. 2018 3639-3650*

Zhang, J., see Chen, N., *TCSI Jan. 2018 84-94*

Zhang, J., see Wang, Y., *TCSI Jan. 2018 307-318*

Zhang, K., see Fan, H., *TCSI Nov. 2018 3698-3706*

Zhang, N., see Li, H., *TCSI Nov. 2018 4027-4034*

Zhang, Q., see Li, Y., *TCSI May 2018 1707-1716*

Zhang, R., see Zhang, H., *TCSI Nov. 2018 3639-3650*

Zhang, S., So, H.C., Mi, W., and Han, H., A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks; *TCSI Feb. 2018 638-649*

Zhang, T., see Guo, S., *TCSI Oct. 2018 3162-3173*

Zhang, W., see Cui, Y., *TCSI Oct. 2018 3506-3518*

Zhang, X., see Wang, Z., *TCSI April 2018 1314-1326*

Zhang, X., An, F., Chen, L., Ishii, I., and Mattausch, H.J., A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization; *TCSI Oct. 2018 3312-3325*

Zhang, X., see Ming, X., *TCSI Dec. 2018 4086-4096*

Zhang, Y., Wang, X., and Friedman, E.G., Memristor-Based Circuit Design for Multilayer Neural Networks; *TCSI Feb. 2018 677-686*

Zhang, Y., see Wang, R., *TCSI March 2018 904-913*

Zhang, Y., see Ouyang, P., *TCSI Oct. 2018 3362-3375*

Zhang, Z., see Song, S., *TCSI July 2018 2269-2278*

Zhang, Z., see Shao, Q., *TCSI Aug. 2018 2455-2465*

Zhao, D., see Li, Y., *TCSI May 2018 1707-1716*

Zhao, H., Soltan, A., Maaskant, P., Dong, N., Sun, X., and Degenar, P., A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability; *TCSI Aug. 2018 2431-2442*

Zhao, M., see Wang, R., *TCSI March 2018 904-913*

Zhao, T., see Ma, S., *TCSI June 2018 1795-1804*

Zhao, W., Gadfort, P., Bhanushali, K., and Franzon, P.D., RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications; *TCSI Jan. 2018 406-418*

Zhao, W., see Ouyang, P., *TCSI Oct. 2018 3362-3375*

Zhao, Y., Hemour, S., Chen, H., Liu, T., and Wu, K., Power-Handling Capacity and Nonlinearity Analysis for Distributed Electronic Impedance Synthesizer; *TCSI April 2018 1340-1348*

Zheng, J., see Weng, Z., *TCSI Feb. 2018 745-757*

Zheng, J., Ki, W., and Tsui, C., Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier; *TCSI April 2018 1185-1195*

Zheng, J., Ki, W., and Tsui, C., A Fully Integrated Analog Front End for Biopotential Signal Sensing; *TCSI Nov. 2018 3800-3809*

Zheng, N., and Mazumder, P., A Scalable Low-Power Reconfigurable Accelerator for Action-Dependent Heuristic Dynamic Programming; *TCSI June 2018 1897-1908*

Zheng, S.Y., see Ou, J., *TCSI April 2018 1234-1244*

Zheng, W.X., see Jin, X., *TCSI July 2018 2243-2255*

Zheng, W.X., see Ma, Q., *TCSI May 2018 1684-1695*

Zheng, Y., see Bu, S., *TCSI Oct. 2018 3578-3591*

Zheng, Z., see Zhu, Y., *TCSI Nov. 2018 3606-3616*

Zhong, J., see Wang, G., *TCSI Nov. 2018 3707-3719*

Zhong, J., see Zhu, Y., *TCSI Nov. 2018 3606-3616*

Zhong, L., Lai, X., Song, H., and Xu, D., Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique; *TCSI Dec. 2018 4072-4085*

Zhong, M., see Li, Y., *TCSI Oct. 2018 3492-3505*

Zhong, S., see Chen, N., *TCSI Jan. 2018 84-94*

Zhou, D., see Lyu, W., *TCSI June 2018 1954-1967*

Zhou, J., see Qiu, Y., *TCSI Aug. 2018 2503-2514*

Zhou, S., see Peng, G., *TCSI May 2018 1717-1730*

Zhou, X., see Tang, F., *TCSI Aug. 2018 2524-2533*

Zhou, Y., see Hua, Z., *TCSI Jan. 2018 235-246*

Zhou, Z., see Jiang, Y., *TCSI Sept. 2018 2726-2738*

Zhu, C., see Kim, J., *TCSI Dec. 2018 4434-4445*

Zhu, D., see Jiang, Y., *TCSI Sept. 2018 2726-2738*

Zhu, H., Yang, Y., Zhu, X., Sun, Y., and Wong, S., Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits; *TCSI Dec. 2018 4062-4071*

Zhu, L., see Huang, Y., *TCSI April 2018 1210-1223*

Zhu, X., see Hou, Z.J., *TCSI July 2018 2139-2150*

Zhu, X., see Zhu, H., *TCSI Dec. 2018 4062-4071*

Zhu, Y., see Yang, X., *TCSI June 2018 1819-1829*

Zhu, Y., see Wang, G., *TCSI Nov. 2018 3707-3719*

Zhu, Y., Chan, C., Zheng, Z., Li, C., Zhong, J., and Martins, R.P., A 0.19 mm² 10 b 2.3 GS/s 12-Way Time-Interleaved Pipelined-SAR ADC in 65-nm CMOS; *TCSI Nov. 2018 3606-3616*

Zhu, Z., see Shen, Y., *TCSI Jan. 2018 51-60*

Zhu, Z., see Liu, L., *TCSI Jan. 2018 95-106*

Zhu, Z., see Wang, J., *TCSI Aug. 2018 2378-2388*

Zhuang, Z., see Jiao, L., *TCSI June 2018 1875-1886*

Zimmerman, T., see Deptuch, G.W., *TCSI Jan. 2018 185-197*

Zito, D., see Pepe, D., *TCSI May 2018 1495-1504*

Zolotas, A., see Yang, J., *TCSI Feb. 2018 832-841*

Zong, G., see Qi, W., *TCSI Sept. 2018 2951-2960*

Zou, M., see Chen, N., *TCSI Jan. 2018 84-94*

SUBJECT INDEX

Numeric

1/f noise

A Low-Noise CMOS Image Sensor With Digital Correlated Multiple Sampling. *Chen, N.*, +, *TCSI Jan. 2018 84-94*
 Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018 2127-2138*

3G mobile communication

Design and Implementation of Flexible and Reconfigurable SDF-Based FFT Chip Architecture With Changeable-Radix Processing Elements. *Shih, X.*, +, *TCSI Nov. 2018 3942-3955*
 VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*

4G mobile communication

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

5G mobile communication

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

III-V semiconductors

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*

A

Accelerometers

Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*

Acoustic signal processing

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, .*, +, *TCSI Feb. 2018 650-662*

Active disturbance rejection control

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Active networks

Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J.*, +, *TCSI Dec. 2018 4233-4246*

Actuators

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*
 Reliable Control of Fuzzy Singularly Perturbed Systems and Its Application to Electronic Circuits. *Wang, Y.*, +, *TCSI Oct. 2018 3519-3528*

Adaptive control

A Dual-Output Switched Capacitor DC-DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*
 Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*
 Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*

Adaptive equalizers

- A Power-Saving Adaptive Equalizer With a Digital-Controlled Self-Slope Detection. *Tu, Y.*, +, *TCSI July 2018 2097-2108*
- Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*

Adaptive estimation

- A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018 2889-2902*

Adaptive filters

- A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks. *Zhang, S.*, +, *TCSI Feb. 2018 638-649*
- A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A.*, +, *TCSI Sept. 2018 3060-3073*
- All-Digital Blind Background Calibration Technique for Any Channel Time-Interleaved ADC. *Qiu, Y.*, +, *TCSI Aug. 2018 2503-2514*
- De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, .*, +, *TCSI Feb. 2018 650-662*
- Random Fourier Filters Under Maximum Correntropy Criterion. *Wang, S.*, +, *TCSI Oct. 2018 3390-3403*

Adders

- A 76–84 GHz CMOS 4× Subharmonic Mixer With Internal Phase Correction. *Plessas, F.*, +, *TCSI July 2018 2083-2096*
- A Computationally Efficient Reconfigurable Constant Multiplication Architecture Based on CSD Decoded Vertical–Horizontal Common Sub-Expression Elimination Algorithm. *Hatai, I.*, +, *TCSI Jan. 2018 130-140*
- An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F.*, +, *TCSI Aug. 2018 2524-2533*
- An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sun, H.*, +, *TCSI Dec. 2018 4037-4050*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W.*, +, *TCSI Sept. 2018 2856-2868*
- Efficient Shift-Add Implementation of FIR Filters Using Variable Partition Hybrid Form Structures. *Ray, D.*, +, *TCSI Dec. 2018 4247-4257*
- FIR Filter Realization via Deferred End-Around Carry Modular Addition. *Belghadr, A.*, +, *TCSI Sept. 2018 2878-2888*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*

Aging

- A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions. *Barbareschi, M.*, +, *TCSI Feb. 2018 700-711*
- On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging. *Islam, M.N.*, +, *TCSI March 2018 960-969*

Aircraft communication

- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*

Amperometric sensors

- A 16 × 16 CMOS Amperometric Microelectrode Array for Simultaneous Electrochemical Measurements. *Giagkoulovits, C.*, +, *TCSI Sept. 2018 2821-2831*

Amplifiers

- A 53 dBΩ 7-GHz Inductorless Transimpedance Amplifier and a 1-THz+ GBP Limiting Amplifier in 0.13-μm CMOS. *Ray, S.*, +, *TCSI Aug. 2018 2365-2377*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- Amplifier Design for Specified Frequency Response Profiles Using Nullors–Hearing Aids, a Case Study. *Hashemian, R.*, *TCSI Dec. 2018 4147-4156*
- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*
- Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*
- Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs. *Trinh, Q.*, +, *TCSI April 2018 1269-1278*
- Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique. *Wang, J.*, +, *TCSI Aug. 2018 2378-2388*

- Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. *Mafi, H.*, +, *TCSI Dec. 2018 4097-4109*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- Time-Based Sensing for Reference-Less and Robust Read in STT-MRAM Memories. *Trinh, Q.*, +, *TCSI Oct. 2018 3338-3348*

Amplitude shift keying

- Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network. *Lofti Navaii, M.*, +, *TCSI Oct. 2018 3255-3266*

Analog circuits

- A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform. *Lee, S.*, +, *TCSI Oct. 2018 3445-3458*
- An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits. *Lyu, W.*, +, *TCSI June 2018 1954-1967*
- Distortion Contribution Analysis With the Best Linear Approximation. *Cooman, A.*, +, *TCSI Dec. 2018 4133-4146*
- Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*
- Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*
- Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z.*, +, *TCSI May 2018 1664-1674*

Analog integrated circuits

- An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S.*, +, *TCSI April 2018 1174-1184*
- Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation. *Shi, G.*, *TCSI Sept. 2018 2939-2950*
- USER-SMILE: Ultrafast Stimulus Error Removal and Segmented Model Identification of Linearity Errors for ADC Built-in Self-Test. *Chen, T.*, +, *TCSI July 2018 2059-2069*

Analog-digital conversion

- A 0.19 mm² 10 b 2.3 GS/s 12-Way Time-Interleaved Pipelined-SAR ADC in 65-nm CMOS. *Zhu, Y.*, +, *TCSI Nov. 2018 3606-3616*
- A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H.*, +, *TCSI Nov. 2018 3639-3650*
- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing ΔΣ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*
- A 12-b 40-MS/s Calibration-Free SAR ADC. *Hsu, C.*, +, *TCSI March 2018 881-890*
- A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N.*, +, *TCSI Dec. 2018 4051-4061*
- A 18.5 nW 12-bit 1-kS/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18-μm CMOS. *Seo, M.*, +, *TCSI Nov. 2018 3617-3627*
- A 2-MS/s, 11.22 ENOB, Extended Input Range SAR ADC With Improved DNL and Offset Calculation. *Asghar, S.*, +, *TCSI Nov. 2018 3628-3638*
- A 250-MHz Pipelined ADC-Based $f_S/4$ Noise-Shaping Bandpass ADC. *Sarma, V.*, +, *TCSI June 2018 1785-1794*
- A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*
- A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering. *Singh, V.K.*, +, *TCSI July 2018 2304-2317*
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J.*, +, *TCSI Nov. 2018 3800-3809*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- A Maximum-Likelihood Sequence Detection Powered ADC-Based Serial Link. *Song, S.*, +, *TCSI July 2018 2269-2278*
- A Pulse Frequency Modulation Interpretation of VCOs Enabling VCO-ADC Architectures With Extended Noise Shaping. *Gutierrez, E.*, +, *TCSI Feb. 2018 444-457*
- A Reconfigurable 10-to-12-b 80-to-20-MS/s Bandwidth Scalable SAR ADC. *Shen, Y.*, +, *TCSI Jan. 2018 51-60*
- A Sub-1ppm/C Current-Mode CMOS Bandgap Reference With Piecewise Curvature Compensation. *Wang, R.*, +, *TCSI March 2018 904-913*
- A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*
- Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D.*, +, *TCSI Feb. 2018 421-433*
- All-Digital Blind Background Calibration Technique for Any Channel Time-Interleaved ADC. *Qiu, Y.*, +, *TCSI Aug. 2018 2503-2514*
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M.*, +, *TCSI Jan. 2018 61-73*

- An Algorithmic Approach for Signal Measurement Using Symbolic Dynamics of Tent Map. *Basu, R.*, +, *TCSI July 2018 2221-2231*
- An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F.*, +, *TCSI Aug. 2018 2524-2533*
- An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sun, H.*, +, *TCSI Dec. 2018 4037-4050*
- Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. *Liu, S.*, +, *TCSI Feb. 2018 458-470*
- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*
- Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*
- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*
- Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique. *Wang, J.*, +, *TCSI Aug. 2018 2378-2388*
- Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC. *Wang, G.*, +, *TCSI Nov. 2018 3707-3719*
- Operational Transconductance Amplifier With Class-B Slew-Rate Boosting for Fast High-Performance Switched-Capacitor Circuits. *Naderi, M.H.*, +, *TCSI Nov. 2018 3769-3779*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S.*, +, *TCSI Dec. 2018 4110-4120*
- Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*
- Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. *Mafi, H.*, +, *TCSI Dec. 2018 4097-4109*
- Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*
- USER-SMILE: Ultrafast Stimulus Error Removal and Segmented Model Identification of Linearity Errors for ADC Built-in Self-Test. *Chen, T.*, +, *TCSI July 2018 2059-2069*
- Antenna arrays**
- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*
- Application specific integrated circuits**
- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*
- A Low-Latency and Low-Complexity Point-Multiplication in ECC. *Salarifard, R.*, +, *TCSI Sept. 2018 2869-2877*
- A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S.*, +, *TCSI March 2018 870-880*
- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- Hardware Implementation of an Event-Based Message Passing Graphical Model Network. *Chien, C.*, +, *TCSI Sept. 2018 2739-2752*
- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018 1293-1302*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*
- Approximation theory**
- Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor. *Pu, Y.*, +, *TCSI Sept. 2018 2903-2916*
- Approximate Multipliers Based on New Approximate Compressors. *Esposito, D.*, +, *TCSI Dec. 2018 4169-4182*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W.*, +, *TCSI Sept. 2018 2856-2868*
- Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D.*, +, *TCSI Aug. 2018 2571-2580*
- Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design. *Low, J.Y.L.*, +, *TCSI Jan. 2018 175-184*
- Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*
- Arcs (electric)**
- Brushing Up on the Urbanek Black Box Arc Model. *Bizzarri, F.*, +, *TCSI May 2018 1675-1683*
- Asymptotic stability**
- Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*
- Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W.*, +, *TCSI June 2018 1994-2004*
- Asynchronous circuits**
- A Reconfigurable 10-to-12-b 80-to-20-MS/s Bandwidth Scalable SAR ADC. *Shen, Y.*, +, *TCSI Jan. 2018 51-60*
- NCL Synthesis With Conventional EDA Tools: Technology Mapping and Optimization. *Moreira, M.T.*, +, *TCSI June 2018 1981-1993*
- Attenuation**
- Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*
- Attitude measurement**
- A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. *Farian, L.*, +, *TCSI May 2018 1543-1554*
- Audio signal processing**
- Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A.*, +, *TCSI May 2018 1614-1627*
- Automatic gain control**
- A Wideband Inductorless dB-Linear Automatic Gain Control Amplifier Using a Single-Branch Negative Exponential Generator for Wireline Applications. *Kong, L.*, +, *TCSI Oct. 2018 3196-3206*
- Automatic test pattern generation**
- An ATPG Method for Double Stuck-At Faults by Analyzing Propagation Paths of Single Faults. *Wang, P.*, +, *TCSI March 2018 1063-1074*
- Avalanche photodiodes**
- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*
- Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes. *Beer, M.*, +, *TCSI March 2018 970-981*
- Avionics**
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*
- AWGN channels**
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

B

Baluns

A 76–84 GHz CMOS 4× Subharmonic Mixer With Internal Phase Correction. *Plessas, F.*, +, *TCSI July 2018 2083-2096*

Band-pass filters

40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*

A 250-MHz Pipelined ADC-Based $f_S/4$ Noise-Shaping Bandpass ADC. *Sarma, V.*, +, *TCSI June 2018 1785-1794*

A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform. *Lee, S.*, +, *TCSI Oct. 2018 3445-3458*

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*

A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*

A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*

- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*
- Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L., +, TCSI June 2018 1875-1886*
- Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickie, M.D., +, TCSI June 2018 1862-1874*
- Band-stop filters**
- Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickie, M.D., +, TCSI June 2018 1862-1874*
- Battery chargers**
- A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique. *Wu, J., +, TCSI Sept. 2018 3099-3109*
- Compact Fast-Waking Light/Heat-Harvesting 0.18- μm CMOS Switched-Inductor Charger. *Blanco, A.A., +, TCSI June 2018 2024-2034*
- Bayes methods**
- An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits. *Lyu, W., +, TCSI June 2018 1954-1967*
- BCH codes**
- Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S., TCSI Dec. 2018 4404-4412*
- BiCMOS analog integrated circuits**
- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A., +, TCSI Feb. 2018 498-509*
- BiCMOS integrated circuits**
- W-Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S., +, TCSI July 2018 2070-2082*
- A $K-/K\alpha$ -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J., +, TCSI Sept. 2018 2679-2690*
- A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting. *Li, T., +, TCSI April 2018 1406-1419*
- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K., +, TCSI June 2018 1850-1861*
- A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J., +, TCSI July 2018 2139-2150*
- BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y., +, TCSI April 2018 1210-1223*
- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*
- Bifurcation**
- Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F., +, TCSI March 2018 1040-1050*
- Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits. *Lodi, M., +, TCSI March 2018 1028-1039*
- One-Dimensional Nonlinear Model for Producing Chaos. *Hua, Z., +, TCSI Jan. 2018 235-246*
- BIMOS integrated circuits**
- A Cost-Effective Adaptive Rectifier for Low Power Loosely Coupled Wireless Power Transfer Systems. *Ozalevli, E., +, TCSI July 2018 2318-2329*
- A Fully Integrated Galvanically Isolated DC-DC Converter With Data Communication. *Ragonese, E., +, TCSI April 2018 1432-1441*
- Binary decision diagrams**
- Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C., +, TCSI Dec. 2018 4313-4325*
- Binary sequences**
- An Algorithmic Approach for Signal Measurement Using Symbolic Dynamics of Tent Map. *Basu, R., +, TCSI July 2018 2221-2231*
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H., +, TCSI Oct. 2018 3529-3542*
- Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K., +, TCSI July 2018 2183-2195*
- Biochemistry**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P., +, TCSI Feb. 2018 663-676*
- Bioelectric phenomena**
- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y., +, TCSI Nov. 2018 3810-3820*
- A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H., +, TCSI Aug. 2018 2431-2442*
- Bioelectric potentials**
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J., +, TCSI Nov. 2018 3800-3809*
- Biological tissues**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P., +, TCSI Feb. 2018 663-676*
- Biomedical electrodes**
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J., +, TCSI Nov. 2018 3800-3809*
- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y., +, TCSI Nov. 2018 3810-3820*
- Biomedical electronics**
- A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N., +, TCSI Dec. 2018 4051-4061*
- A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H., +, TCSI Aug. 2018 2431-2442*
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K., +, TCSI Sept. 2018 2784-2796*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S., +, TCSI Sept. 2018 2774-2783*
- Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*
- Amplifier Design for Specified Frequency Response Profiles Using Nullors—Hearing Aids, a Case Study. *Hashemian, R., TCSI Dec. 2018 4147-4156*
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M., +, TCSI Jan. 2018 61-73*
- Analysis and Design of a Passive Receiver Front-End Using an Inductive Antenna Impedance. *Liu, Y., +, TCSI Feb. 2018 733-744*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J., +, TCSI April 2018 1185-1195*
- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*
- Biomedical telemetry**
- Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*
- Biomedical ultrasonics**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P., +, TCSI Feb. 2018 663-676*
- Biosensors**
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K., +, TCSI Sept. 2018 2784-2796*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J., +, TCSI April 2018 1185-1195*
- Bipolar MIMIC**
- W-Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S., +, TCSI July 2018 2070-2082*
- A $K-/K\alpha$ -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J., +, TCSI Sept. 2018 2679-2690*
- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K., +, TCSI June 2018 1850-1861*
- A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J., +, TCSI July 2018 2139-2150*
- Bipolar MMIC**
- A $K-/K\alpha$ -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J., +, TCSI Sept. 2018 2679-2690*
- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K., +, TCSI June 2018 1850-1861*
- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*
- Bipolar transistors**
- Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P., +, TCSI Nov. 2018 3780-3789*

Biquadratic filters

- A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform. Lee, S., +, *TCSI Oct. 2018 3445-3458*
- A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. Peng, S., +, *TCSI Feb. 2018 543-555*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. Thanapitak, S., +, *TCSI Sept. 2018 2774-2783*

Blood

- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. Pai, P.P., +, *TCSI Feb. 2018 663-676*

Bluetooth

- 400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. Weng, Z., +, *TCSI Feb. 2018 745-757*
- A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. Oh, S., +, *TCSI Sept. 2018 3037-3048*

Body area networks

- Analysis and Design of a Passive Receiver Front-End Using an Inductive Antenna Impedance. Liu, Y., +, *TCSI Feb. 2018 733-744*
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. Ali, M., +, *TCSI June 2018 2005-2014*

Boolean functions

- Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. Thangkhiew, P.L., +, *TCSI Aug. 2018 2466-2476*
- QBF-Based Post-Silicon Debug of Speed-Paths Under Timing Variations. Alizadeh, B., +, *TCSI Dec. 2018 4326-4335*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. Agrawal, A., +, *TCSI Dec. 2018 4219-4232*

Bootstrap circuits

- High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters. Allasasmeh, Y., +, *TCSI Nov. 2018 3970-3983*

Brain

- Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. Aprile, C., +, *TCSI Nov. 2018 3929-3941*

Bridge circuits

- Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. Khoshasadat, A., +, *TCSI Feb. 2018 842-853*

Buffer circuits

- A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximised Timing Margin. Chen, Y., +, *TCSI Sept. 2018 3014-3026*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. Thanapitak, S., +, *TCSI Sept. 2018 2774-2783*

Buffer storage

- Data and Hardware Efficient Design for Convolutional Neural Network. Lin, Y., +, *TCSI May 2018 1642-1651*

Built-in self test

- A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform. Lee, S., +, *TCSI Oct. 2018 3445-3458*
- USER-SMILE: Ultrafast Stimulus Error Removal and Segmented Model Identification of Linearity Errors for ADC Built-in Self-Test. Chen, T., +, *TCSI July 2018 2059-2069*

Butterworth filters

- A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. Peng, S., +, *TCSI Feb. 2018 543-555*

C**Calculus**

- Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor. Pu, Y., +, *TCSI Sept. 2018 2903-2916*

Calibration

- A 0.19 mm² 10 b 2.3 GS/s 12-Way Time-Interleaved Pipelined-SAR ADC in 65-nm CMOS. Zhu, Y., +, *TCSI Nov. 2018 3606-3616*
- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. Li, B., +, *TCSI July 2018 2169-2182*
- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. Song, J., +, *TCSI Jan. 2018 331-342*
- A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. Fan, H., +, *TCSI Nov. 2018 3698-3706*

- A 76–84 GHz CMOS 4 \times Subharmonic Mixer With Internal Phase Correction. Plessas, F., +, *TCSI July 2018 2083-2096*

- A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. Tang, Z., +, *TCSI Nov. 2018 3821-3829*

- A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. Abbasalizadeh, S., +, *TCSI Sept. 2018 2917-2928*

- An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a $\Delta\Sigma$ Loop. Chowdhury, G., +, *TCSI June 2018 1887-1896*

- An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop. Chen, P., +, *TCSI Nov. 2018 3734-3744*

- An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. Safari, P., +, *TCSI May 2018 1529-1542*

- Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. Liu, S., +, *TCSI Feb. 2018 458-470*

- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. Pai, P.P., +, *TCSI Feb. 2018 663-676*

- Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC. Wang, G., +, *TCSI Nov. 2018 3707-3719*

- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. Ali, M., +, *TCSI June 2018 2005-2014*

- Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. Mafi, H., +, *TCSI Dec. 2018 4097-4109*

- Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. Solomko, V., +, *TCSI May 2018 1731-1743*

Cantilevers

- Monolithic Airflow Detection Chip With Automatic DC Offset Calibration. Tsai, M., +, *TCSI Jan. 2018 107-117*

Capacitance

- Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. Manivannan, S., +, *TCSI Oct. 2018 3207-3215*

Capacitance measurement

- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. Li, B., +, *TCSI July 2018 2169-2182*

- A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. Schormans, M., +, *TCSI Sept. 2018 2645-2656*

Capacitive sensors

- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. Li, B., +, *TCSI July 2018 2169-2182*

- A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. Schormans, M., +, *TCSI Sept. 2018 2645-2656*

- Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. Zhong, L., +, *TCSI Dec. 2018 4072-4085*

- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. Rieger, R., +, *TCSI Aug. 2018 2422-2430*

Capacitors

- A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses. Li, H., +, *TCSI Nov. 2018 4027-4034*

- A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. Schormans, M., +, *TCSI Sept. 2018 2645-2656*

- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. Karimi-Bidhendi, A., +, *TCSI Feb. 2018 498-509*

- A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. Banovic, K., +, *TCSI March 2018 1110-1119*

- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. McCullagh, J., *TCSI May 2018 1758-1770*

- Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor. Pu, Y., +, *TCSI Sept. 2018 2903-2916*

- Analysis of the Effect of Source Capacitance and Inductance on *N*-Path Mixers and Filters. Pavan, S., +, *TCSI May 2018 1469-1480*

- Class-J SiGe *X*-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. Scaramuzza, P., +, *TCSI Nov. 2018 3780-3789*

- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. Huang, Y., +, *TCSI Nov. 2018 4017-4026*

Carbon nanotube field effect transistors

- Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. Vudadha, C., +, *TCSI Dec. 2018 4313-4325*

Cardiology

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*

Carrier lifetime

An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*

Carrier mobility

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*

Cascade networks

A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*

Cellular radio

An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F.*, +, *TCSI Nov. 2018 3756-3768*

Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*

Channel coding

A Multi-Kernel Multi-Code Polar Decoder Architecture. *Coppolino, G.*, +, *TCSI Dec. 2018 4413-4422*

Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F.*, +, *TCSI Oct. 2018 3555-3567*

Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Channel estimation

VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*

Chaos

An Algorithmic Approach for Signal Measurement Using Symbolic Dynamics of Tent Map. *Basu, R.*, +, *TCSI July 2018 2221-2231*

CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F.*, +, *TCSI March 2018 1040-1050*

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W.*, +, *TCSI June 2018 1994-2004*

One-Dimensional Nonlinear Model for Producing Chaos. *Hua, Z.*, +, *TCSI Jan. 2018 235-246*

True Random Number Generator Based on Flip-Flop Resolve Time Instability Boosted by Random Chaotic Source. *Wieczorek, P.Z.*, +, *TCSI April 2018 1279-1292*

Character recognition

Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*

Charge pump circuits

A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting. *Dezyani, M.*, +, *TCSI Oct. 2018 3568-3577*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*

An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*

Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M.*, +, *TCSI June 2018 1968-1980*

High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X.*, +, *TCSI March 2018 1143-1153*

Chebyshev filters

A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*

Choppers (circuits)

A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J.*, +, *TCSI Sept. 2018 2810-2820*

Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*

Chua's circuit

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F.*, +, *TCSI March 2018 1040-1050*

Circuit complexity

Design and Implementation of Low Complexity 2-D Variable Digital FIR Filters Using Single-Parameter-Tunable 2-D Farrow Structure. *Bindima, T.*, +, *TCSI Feb. 2018 618-627*

Efficient Shift-Add Implementation of FIR Filters Using Variable Partition Hybrid Form Structures. *Ray, D.*, +, *TCSI Dec. 2018 4247-4257*

Circuit feedback

A Double-Isolated DC-DC Converter Based on Integrated LC Resonant Barriers. *Greco, N.*, +, *TCSI Dec. 2018 4423-4433*

A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*

Amplifier Design for Specified Frequency Response Profiles Using Nullors-Hearing Aids, a Case Study. *Hashemian, R.*, *TCSI Dec. 2018 4147-4156*

Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*

VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*

Circuit noise

Distortion Contribution Analysis With the Best Linear Approximation. *Cooman, A.*, +, *TCSI Dec. 2018 4133-4146*

Circuit optimization

A Built-In Self-Test and *In Situ* Analog Circuit Optimization Platform. *Lee, S.*, +, *TCSI Oct. 2018 3445-3458*

An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits. *Lyu, W.*, +, *TCSI June 2018 1954-1967*

High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X.*, +, *TCSI March 2018 1143-1153*

Circuit reliability

An ATPG Method for Double Stuck-At Faults by Analyzing Propagation Paths of Single Faults. *Wang, P.*, +, *TCSI March 2018 1063-1074*

Circuit simulation

Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D.*, +, *TCSI Feb. 2018 421-433*

An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits. *Lyu, W.*, +, *TCSI June 2018 1954-1967*

Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z.*, +, *TCSI May 2018 1664-1674*

Modeling and Identification of Ultra-Wideband Analog Multipliers. *Pedross-Engel, A.*, +, *TCSI Jan. 2018 283-292*

Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N.*, +, *TCSI Aug. 2018 2403-2410*

Circuit stability

Pentavariate V_{\min} Analysis of a Subthreshold 10T SRAM Bit Cell With Variation Tolerant Write and Divided Bit-Line Read. *Gupta, S.*, +, *TCSI Oct. 2018 3326-3337*

True Random Number Generator Based on Flip-Flop Resolve Time Instability Boosted by Random Chaotic Source. *Wieczorek, P.Z.*, +, *TCSI April 2018 1279-1292*

Circuit testing

Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z.*, +, *TCSI May 2018 1664-1674*

Circuit tuning

Power-Handling Capacity and Nonlinearity Analysis for Distributed Electronic Impedance Synthesizer. *Zhao, Y.*, +, *TCSI April 2018 1340-1348*

Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickle, M.D.*, +, *TCSI June 2018 1862-1874*

Circuit-breaking arcs

Brushing Up on the Urbanek Black Box Arc Model. *Bizzarri, F.*, +, *TCSI May 2018 1675-1683*

Circuits and systems

Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*

Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*

Clocks

1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*

A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F.*, +, *TCSI March 2018 935-945*

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*

- A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K.*, +, *TCSI July 2018 2109-2117*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
- An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop. *Chen, P.*, +, *TCSI Nov. 2018 3734-3744*
- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*
- Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*
- Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network. *Pavan, S.*, +, *TCSI Oct. 2018 3267-3278*
- Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*
- Closed loop systems**
- A Wideband Inductorless dB-Linear Automatic Gain Control Amplifier Using a Single-Branch Negative Exponential Generator for Wireline Applications. *Kong, L.*, +, *TCSI Oct. 2018 3196-3206*
- Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*
- Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y.*, +, *TCSI April 2018 1386-1394*
- Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J.*, +, *TCSI Dec. 2018 4363-4375*
- Loop-Filter Design and Analysis for Delta-Sigma Modulators and Over-sampled IIR Filters. *Sienko, M.*, *TCSI Dec. 2018 4121-4132*
- New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y.*, +, *TCSI Sept. 2018 2961-2969*
- Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*
- Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*
- Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y.*, +, *TCSI July 2018 2256-2268*
- Cloud computing**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*
- CMOS analog integrated circuits**
- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*
- A CMOS Follower-Type Voltage Regulator With a Distributed-Element Fractional-Order Control. *Kadlcik, L.*, +, *TCSI Sept. 2018 2753-2763*
- A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*
- An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*
- High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X.*, +, *TCSI March 2018 1143-1153*
- Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*
- Process Scalability of Pulse-Based Circuits for Analog Image Convolution. *D'Angelo, R.*, +, *TCSI Sept. 2018 2929-2938*
- Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*
- Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*
- Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*
- CMOS digital integrated circuits**
- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*
- A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H.*, +, *TCSI Nov. 2018 3639-3650*
- A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*
- A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*
- A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018 1909-1918*
- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*
- A Reconfigurable 10-to-12-b 80-to-20-MS/s Bandwidth Scalable SAR ADC. *Shen, Y.*, +, *TCSI Jan. 2018 51-60*
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M.*, +, *TCSI Jan. 2018 61-73*
- An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop. *Chen, P.*, +, *TCSI Nov. 2018 3734-3744*
- An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sun, H.*, +, *TCSI Dec. 2018 4037-4050*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S.*, +, *TCSI Dec. 2018 4110-4120*
- Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P.*, +, *TCSI Jan. 2018 74-83*
- CMOS image sensors**
- A Low-Noise CMOS Image Sensor With Digital Correlated Multiple Sampling. *Chen, N.*, +, *TCSI Jan. 2018 84-94*
- An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F.*, +, *TCSI Aug. 2018 2524-2533*
- Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. *Luo, Y.*, +, *TCSI May 2018 1555-1566*
- Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique. *Wang, J.*, +, *TCSI Aug. 2018 2378-2388*
- CMOS integrated circuits**
- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- 40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*
- 400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z.*, +, *TCSI Feb. 2018 745-757*
- A 8 mV/+15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A.*, +, *TCSI April 2018 1454-1467*
- A 0.12–0.4 V, Versatile 3-Transistor CMOS Voltage Reference for Ultra-Low Power Systems. *de Oliveira, A.C.*, +, *TCSI Nov. 2018 3790-3799*
- A 0.19 mm² 10 b 2.3 GS/s 12-Way Time-Interleaved Pipelined-SAR ADC in 65-nm CMOS. *Zhu, Y.*, +, *TCSI Nov. 2018 3606-3616*
- A 0.49–13.3 MHz Tunable Fourth-Order LPF with Complex Poles Achieving 28.7 dBm OIP3. *Payandehnia, P.*, +, *TCSI Aug. 2018 2353-2364*
- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*
- A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L.*, +, *TCSI Jan. 2018 95-106*

- A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking. *Bazrafshan, A.*, +, *TCSI Oct. 2018 3186-3195*
- A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M.*, +, *TCSI Nov. 2018 3675-3687*
- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*
- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J.*, +, *TCSI Jan. 2018 331-342*
- A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*
- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128×8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting. *Mu, J.*, +, *TCSI Aug. 2018 2631-2640*
- A 12-b 40-MS/s Calibration-Free SAR ADC. *Hsu, C.*, +, *TCSI March 2018 881-890*
- A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver. *Jung, D.*, +, *TCSI Nov. 2018 3688-3697*
- A 14-ENOB Delta-Sigma-Based Readout Architecture for ECG Recording Systems. *Ivanisevic, N.*, +, *TCSI Dec. 2018 4051-4061*
- A 18.5 nW 12-bit 1-k/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μ m CMOS. *Seo, M.*, +, *TCSI Nov. 2018 3617-3627*
- A 2-MS/s, 11.22 ENOB, Extended Input Range SAR ADC With Improved DNL and Offset Calculation. *Asghar, S.*, +, *TCSI Nov. 2018 3628-3638*
- A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*
- A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection. *Cho, S.*, +, *TCSI Sept. 2018 2691-2702*
- A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A.*, +, *TCSI Oct. 2018 3174-3185*
- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*
- A 25-Gb/s 270-mW Time-to-Digital Converter-Based $8 \times$ Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS. *Ur Rehman, S.*, +, *TCSI Nov. 2018 3720-3733*
- A 250-MHz Pipelined ADC-Based $f_S/4$ Noise-Shaping Bandpass ADC. *Sarma, V.*, +, *TCSI June 2018 1785-1794*
- A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S.*, +, *TCSI Sept. 2018 3037-3048*
- A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. *Fan, H.*, +, *TCSI Nov. 2018 3698-3706*
- A 53 dB Ω 7-GHz Inductorless Transimpedance Amplifier and a 1-THz+ GBP Limiting Amplifier in 0.13- μ m CMOS. *Ray, S.*, +, *TCSI Aug. 2018 2365-2377*
- A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting. *Dezyani, M.*, +, *TCSI Oct. 2018 3568-3577*
- A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*
- A 76–84 GHz CMOS $4 \times$ Subharmonic Mixer With Internal Phase Correction. *Plessas, F.*, +, *TCSI July 2018 2083-2096*
- A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z.*, +, *TCSI Nov. 2018 3821-3829*
- A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar. *Park, P.*, +, *TCSI Sept. 2018 3049-3059*
- A Current-Accuracy-Enhanced Wide-Input-Range DC–DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z.*, +, *TCSI Nov. 2018 3996-4006*
- A Digital Phase-Locked Loop With Background Supply Voltage Sensitivity Minimization. *Tien, C.*, +, *TCSI June 2018 1830-1839*
- A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*
- A Discrete-Time RF Signal-Processing Technique for Blocker-Tolerant Receivers With Wide Instantaneous Bandwidth. *Ghadiri-Sadrabadi, M.*, +, *TCSI Dec. 2018 4376-4389*
- A Dual-Output Switched Capacitor DC–DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*
- A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K.*, +, *TCSI July 2018 2109-2117*
- A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J.*, +, *TCSI Nov. 2018 3800-3809*
- A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses. *Li, H.*, +, *TCSI Nov. 2018 4027-4034*
- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*
- A High-Precision Resistor-Less CMOS Compensated Bandgap Reference Based on Successive Voltage-Step Compensation. *Ming, X.*, +, *TCSI Dec. 2018 4086-4096*
- A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K.*, +, *TCSI Feb. 2018 769-782*
- A Low-Latency and Area-Efficient Gram–Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*
- A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*
- A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*
- A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting. *Li, T.*, +, *TCSI April 2018 1406-1419*
- A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*
- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018 758-768*
- A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique. *Wu, J.*, +, *TCSI Sept. 2018 3099-3109*
- A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
- A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. *Abbasalizadeh, S.*, +, *TCSI Sept. 2018 2917-2928*
- A Power-Saving Adaptive Equalizer With a Digital-Controlled Self-Slope Detection. *Tu, Y.*, +, *TCSI July 2018 2097-2108*
- A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*
- A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*
- A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*
- A Sub-Ippm/C Current-Mode CMOS Bandgap Reference With Piecewise Curvature Compensation. *Wang, R.*, +, *TCSI March 2018 904-913*
- A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*
- A Systematic Design Method for Direct Delta-Sigma Receivers. *Englund, M.*, +, *TCSI Aug. 2018 2389-2402*
- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*
- A Wideband Inductorless dB-Linear Automatic Gain Control Amplifier Using a Single-Branch Negative Exponential Generator for Wireline Applications. *Kong, L.*, +, *TCSI Oct. 2018 3196-3206*
- A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J.*, +, *TCSI Sept. 2018 2810-2820*
- All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs. *Gebreyohannes, F.T.*, +, *TCSI Nov. 2018 3956-3969*
- An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A.*, +, *TCSI Dec. 2018 4299-4312*
- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*

- An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F.*, +, *TCSI Nov. 2018 3756-3768*
- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*
- An Architecture to Accelerate Convolution in Deep Neural Networks. *Ardakani, A.*, +, *TCSI April 2018 1349-1362*
- An Efficient Self-Powered Piezoelectric Energy Harvesting CMOS Interface Circuit Based on Synchronous Charge Extraction Technique. *Shi, G.*, +, *TCSI Feb. 2018 804-817*
- An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G.*, +, *TCSI June 2018 1887-1896*
- Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. *Liu, S.*, +, *TCSI Feb. 2018 458-470*
- Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C.*, +, *TCSI March 2018 859-869*
- Analysis and Design of a Passive Receiver Front-End Using an Inductive Antenna Impedance. *Liu, Y.*, +, *TCSI Feb. 2018 733-744*
- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*
- Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*
- ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity. *Das, D.*, +, *TCSI Oct. 2018 3300-3311*
- BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y.*, +, *TCSI April 2018 1210-1223*
- Compact Fast-Waking Light/Heat-Harvesting 0.18- μ m CMOS Switched-Inductor Charger. *Blanco, A.A.*, +, *TCSI June 2018 2024-2034*
- Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*
- Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargaran, E.*, +, *TCSI March 2018 891-903*
- Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M.*, +, *TCSI Jan. 2018 366-379*
- Design and Implementation of Flexible and Reconfigurable SDF-Based FFT Chip Architecture With Changeable-Radix Processing Elements. *Shih, X.*, +, *TCSI Nov. 2018 3942-3955*
- Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*
- Efficient Progressive Radiance Estimation Engine Architecture and Implementation for Progressive Photon Mapping. *Chiu, C.*, +, *TCSI Aug. 2018 2491-2502*
- Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S.*, +, *TCSI Dec. 2018 4285-4298*
- Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018 2035-2047*
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*
- High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters. *Allasasmeh, Y.*, +, *TCSI Nov. 2018 3970-3983*
- HTD: A Light-Weight Holosymmetrical Transition Detector for Wide-Voltage-Range Variation Resilient ICs. *Dai, W.*, +, *TCSI Nov. 2018 3907-3917*
- IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. *Saponara, S.*, +, *TCSI Jan. 2018 380-393*
- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*
- Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018 2127-2138*
- Monolithic Airflow Detection Chip With Automatic DC Offset Calibration. *Tsai, M.*, +, *TCSI Jan. 2018 107-117*
- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. *Huang, Y.*, +, *TCSI Nov. 2018 4017-4026*
- On the Remarkable Performance of the Series-Resonance CMOS Oscillator. *Pepe, F.*, +, *TCSI Feb. 2018 531-542*
- One Mbps 1 nJ/b 3.5-4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*
- Operational Transconductance Amplifier With Class-B Slew-Rate Boosting for Fast High-Performance Switched-Capacitor Circuits. *Naderi, M.H.*, +, *TCSI Nov. 2018 3769-3779*
- Phase Transition Analysis of Dual-Mode Standing-Rotary Traveling-Wave Oscillator. *Abbasizadeh, S.*, +, *TCSI Aug. 2018 2534-2546*
- Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design. *Low, J.Y.L.*, +, *TCSI Jan. 2018 175-184*
- Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*
- Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J.*, +, *TCSI Sept. 2018 3085-3098*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- CMOS logic circuits**
- A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F.*, +, *TCSI March 2018 935-945*
- A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximized Timing Margin. *Chen, Y.*, +, *TCSI Sept. 2018 3014-3026*
- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*
- A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N.*, +, *TCSI March 2018 946-959*
- A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*
- A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J.*, +, *TCSI May 2018 1567-1580*
- A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*
- An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators. *Le Ba, N.*, +, *TCSI Oct. 2018 3291-3299*
- CORDIC-Based Architecture for Computing Nth Root and Its Implementation. *Luo, Y.*, +, *TCSI Dec. 2018 4183-4195*
- Hardware Implementation of an Event-Based Message Passing Graphical Model Network. *Chien, C.*, +, *TCSI Sept. 2018 2739-2752*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- CMOS memory circuits**
- A 0.2 V 32-Kb 10T SRAM With 41 nW Standby Power for IoT Applications. *Chien, Y.*, +, *TCSI Aug. 2018 2443-2454*
- A 128 kb 7T SRAM Using a Single-Cycle Boosting Mechanism in 28-nm FD-SOI. *Mohammadi, B.*, +, *TCSI April 2018 1257-1268*
- A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R.*, +, *TCSI April 2018 1245-1256*
- A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory. *Mordakhay, A.*, +, *TCSI April 2018 1224-1233*
- A Low-Overhead Dynamic TCAM With Pipelined Read-Restore Refresh Scheme. *Mishra, S.*, +, *TCSI May 2018 1591-1601*
- Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs. *Trinh, Q.*, +, *TCSI April 2018 1269-1278*
- CMOS process**
- A 16 x 16 CMOS Amperometric Microelectrode Array for Simultaneous Electrochemical Measurements. *Giagkoulovits, C.*, +, *TCSI Sept. 2018 2821-2831*
- Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. *Manivannan, S.*, +, *TCSI Oct. 2018 3207-3215*

Code division multiple access

A Cartesian Error Feedback Architecture. *Li, J., +, TCSI March 2018 1133-1142*

Cognitive radio

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N., +, TCSI July 2018 2279-2292*

A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K., +, TCSI March 2018 1110-1119*

Coils

A Splitting Frequencies-Based Wireless Power and Information Simultaneous Transfer Method. *Kim, J., +, TCSI Dec. 2018 4434-4445*

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*

Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network. *Lotfi Navaii, M., +, TCSI Oct. 2018 3255-3266*

Comb filters

Design of Least-Squares and Minimax Composite Filters. *Lu, W., +, TCSI March 2018 982-991*

Comparators (circuits)

A 2-MS/s, 11.22 ENOB, Extended Input Range SAR ADC With Improved DNL and Offset Calculation. *Asghar, S., +, TCSI Nov. 2018 3628-3638*

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z., +, TCSI May 2018 1744-1757*

An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J., TCSI May 2018 1758-1770*

Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. *Liu, S., +, TCSI Feb. 2018 458-470*

Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC. *Wang, G., +, TCSI Nov. 2018 3707-3719*

Compensation

A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L., +, TCSI Jan. 2018 95-106*

A High-Precision Resistor-Less CMOS Compensated Bandgap Reference Based on Successive Voltage-Step Compensation. *Ming, X., +, TCSI Dec. 2018 4086-4096*

A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S., +, TCSI March 2018 870-880*

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A., +, TCSI Feb. 2018 556-566*

BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y., +, TCSI April 2018 1210-1223*

Complex networks

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Toward Stronger Robustness of Network Controllability: A Snapshot Network Model. *Lou, Y., +, TCSI Sept. 2018 2983-2991*

Compressed sensing

A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M., +, TCSI Oct. 2018 3349-3361*

Adaptive Matrix Design for Boosting Compressed Sensing. *Mangia, M., +, TCSI March 2018 1016-1027*

How to Make Analog-to-Information Converters Work in Dynamic Spectrum Environments With Changing Sparsity Conditions. *Yazicigil, R.T., +, TCSI June 2018 1775-1784*

Non-Uniform Wavelet Sampling for RF Analog-to-Information Conversion. *Pelissier, M., +, TCSI Feb. 2018 471-484*

Computational complexity

A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks. *Zhang, S., +, TCSI Feb. 2018 638-649*

A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P., +, TCSI Oct. 2018 3362-3375*

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C., +, TCSI Sept. 2018 2889-2902*

A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M., +, TCSI Oct. 2018 3349-3361*

Data and Hardware Efficient Design for Convolutional Neural Network. *Lin, Y., +, TCSI May 2018 1642-1651*

Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V., +, TCSI March 2018 1051-1062*

Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S., +, TCSI Aug. 2018 2477-2490*

VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O., +, TCSI March 2018 1120-1132*

Computer architecture

CORDIC-Based Architecture for Computing Nth Root and Its Implementation. *Luo, Y., +, TCSI Dec. 2018 4183-4195*

Efficient Progressive Radiance Estimation Engine Architecture and Implementation for Progressive Photon Mapping. *Chiu, C., +, TCSI Aug. 2018 2491-2502*

Computer crime

Auto-Erasable RRAM Architecture Secured Against Physical and Firmware Attacks. *Garcia-Redondo, F., +, TCSI May 2018 1581-1590*

Concave programming

Joint Sparsity and Order Optimization Based on ADMM With Non-Uniform Group Hard Thresholding. *Matsuoka, R., +, TCSI May 2018 1602-1613*

Content-addressable storage

A Low-Overhead Dynamic TCAM With Pipelined Read-Restore Refresh Scheme. *Mishra, S., +, TCSI May 2018 1591-1601*

A Novel Memristor-Based Circuit Implementation of Full-Function Pavlov Associative Memory Accorded With Biological Feature. *Wang, Z., +, TCSI July 2018 2210-2220*

Continuous systems

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Continuous time filters

Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A., +, TCSI Feb. 2018 434-443*

Expansion and Compression of Analog Pulses by Bandwidth Scaling of Continuous-Time Filters. *Mondal, I., +, TCSI Sept. 2018 2703-2714*

Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N., +, TCSI Aug. 2018 2403-2410*

Continuous time systems

Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D., +, TCSI Feb. 2018 421-433*

Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A., +, TCSI Nov. 2018 3662-3674*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Control engineering computing

A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y., +, TCSI Feb. 2018 567-580*

Control nonlinearities

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Control system synthesis

A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W., +, TCSI Nov. 2018 3984-3995*

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jim, X., +, TCSI July 2018 2243-2255*

Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S., +, TCSI April 2018 1377-1385*

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y., +, TCSI June 2018 1805-1818*

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y., +, TCSI April 2018 1386-1394*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M., +, TCSI Sept. 2018 3005-3013*

Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K., +, TCSI May 2018 1696-1706*

New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y., +, TCSI Sept. 2018 2961-2969*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle. *Ma, Q.*, +, *TCSI May 2018 1684-1695*

Convergence

Random Fourier Filters Under Maximum Correntropy Criterion. *Wang, S.*, +, *TCSI Oct. 2018 3390-3403*

Converters

An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*

Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves. *Li, L.*, +, *TCSI Jan. 2018 154-162*

Convex programming

VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*

Convolution

A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things. *Du, L.*, +, *TCSI Jan. 2018 198-208*

An Architecture to Accelerate Convolution in Deep Neural Networks. *Ardakani, A.*, +, *TCSI April 2018 1349-1362*

Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*

Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S.*, +, *TCSI Dec. 2018 4285-4298*

Process Scalability of Pulse-Based Circuits for Analog Image Convolution. *D'Angelo, R.*, +, *TCSI Sept. 2018 2929-2938*

Superior Execution Time Design of a Space/Spatial-Frequency Optimal Filter for Highly Nonstationary 2D FM Signal Estimation. *Ivanovic, V.N.*, +, *TCSI Oct. 2018 3376-3389*

Coprocessors

An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S.*, +, *TCSI April 2018 1174-1184*

Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V.*, +, *TCSI March 2018 1051-1062*

Copy protection

A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions. *Barbareschi, M.*, +, *TCSI Feb. 2018 700-711*

Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H.*, +, *TCSI Feb. 2018 593-605*

Correlation methods

A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*

Cost function

Random Fourier Filters Under Maximum Correntropy Criterion. *Wang, S.*, +, *TCSI Oct. 2018 3390-3403*

Counting circuits

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*

Coupled circuits

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F.*, +, *TCSI March 2018 1040-1050*

Covariance matrices

A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*

Crosstalk

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A.*, +, *TCSI Aug. 2018 2547-2558*

Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*

Cryptographic protocols

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*

Cryptography

A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*

A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions. *Barbareschi, M.*, +, *TCSI Feb. 2018 700-711*

ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity. *Das, D.*, +, *TCSI Oct. 2018 3300-3311*

Auto-Erasable RRAM Architecture Secured Against Physical and Firmware Attacks. *Garcia-Redondo, F.*, +, *TCSI May 2018 1581-1590*

Gain-Cell Embedded DRAM-Based Physical Unclonable Function. *Gitterman, R.*, +, *TCSI Dec. 2018 4208-4218*

Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H.*, +, *TCSI Feb. 2018 593-605*

On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging. *Islam, M.N.*, +, *TCSI March 2018 960-969*

TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*

X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*

Crystal oscillators

A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

Crystal resonators

A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*

Current density

A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation. *Bu, S.*, +, *TCSI Oct. 2018 3578-3591*

Current mirrors

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*

Current-mode logic

A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N.*, +, *TCSI March 2018 946-959*

CW radar

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*

Cyclic codes

Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*

Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

D

Dark conductivity

An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*

Data acquisition

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Data communication

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C.*, +, *TCSI Nov. 2018 3929-3941*

Data compression

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C.*, +, *TCSI Nov. 2018 3929-3941*

Adaptive Matrix Design for Boosting Compressed Sensing. *Mangia, M.*, +, *TCSI March 2018 1016-1027*

Low-Cost Lifting Architecture and Lossless Implementation of Daubechies-8 Wavelets. *Hasan, M.M.*, +, *TCSI Aug. 2018 2515-2523*

Data flow computing

Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*

DC motors

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y.*, +, *TCSI July 2018 2256-2268*

DC-DC power converters

A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*

A 93% Peak Efficiency Fully-Integrated Multilevel Multistate Hybrid DC-DC Converter. *Abdulslam, A.*, +, *TCSI Aug. 2018 2617-2630*

A Current-Accuracy-Enhanced Wide-Input-Range DC-DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z.*, +, *TCSI Nov. 2018 3996-4006*

A Double-Isolated DC-DC Converter Based on Integrated LC Resonant Barriers. *Greco, N.*, +, *TCSI Dec. 2018 4423-4433*

A Dual-Output Switched Capacitor DC-DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*

A Fully Integrated Galvanically Isolated DC-DC Converter With Data Communication. *Ragonese, E.*, +, *TCSI April 2018 1432-1441*

A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K.*, +, *TCSI Jan. 2018 394-405*

A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A.*, +, *TCSI Feb. 2018 842-853*

Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018 2035-2047*

High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters. *Allasasmeh, Y.*, +, *TCSI Nov. 2018 3970-3983*

IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. *Saponara, S.*, +, *TCSI Jan. 2018 380-393*

Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Unified Digital Modulation Techniques for DC-DC Converters Over a Wide Operating Range: Implementation, Modeling, and Design Guidelines. *Mandi, B.C.*, +, *TCSI April 2018 1442-1453*

Decision feedback equalizers

A Maximum-Likelihood Sequence Detection Powered ADC-Based Serial Link. *Song, S.*, +, *TCSI July 2018 2269-2278*

Decision trees

Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data. *Buschjager, S.*, +, *TCSI Jan. 2018 209-222*

Decoding

A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture. *Condo, C.*, +, *TCSI April 2018 1420-1431*

A Multi-Kernel Multi-Code Polar Decoder Architecture. *Coppolino, G.*, +, *TCSI Dec. 2018 4413-4422*

Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S.*, *TCSI Dec. 2018 4404-4412*

Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A.*, +, *TCSI Jan. 2018 353-365*

Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F.*, +, *TCSI Oct. 2018 3555-3567*

Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*

Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Decorrelation

A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks. *Zhang, S.*, +, *TCSI Feb. 2018 638-649*

Degradation

Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. *Manivannan, S.*, +, *TCSI Oct. 2018 3207-3215*

Delay estimation

Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*

Delay filters

Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies. *Huang, X.*, +, *TCSI Feb. 2018 628-637*

Expansion and Compression of Analog Pulses by Bandwidth Scaling of Continuous-Time Filters. *Mondal, I.*, +, *TCSI Sept. 2018 2703-2714*

Delay lines

1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*

A 25-Gb/s 270-mW Time-to-Digital Converter-Based 8 \times Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS. *Ur Rehman, S.*, +, *TCSI Nov. 2018 3720-3733*

A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*

Delay lock loops

1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*

Delays

A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018 1909-1918*

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J.*, +, *TCSI Dec. 2018 4363-4375*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Finite-Time H_∞ State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols. *Wan, X.*, +, *TCSI Oct. 2018 3481-3491*

Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*

Delta-sigma modulation

A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M.*, +, *TCSI Nov. 2018 3675-3687*

A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*

A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N.*, +, *TCSI Dec. 2018 4051-4061*

A 250-MHz Pipelined ADC-Based $f_S/4$ Noise-Shaping Bandpass ADC. *Sarma, V.*, +, *TCSI June 2018 1785-1794*

A Design Method for Nested MASH-SQ Hybrid Divider Controllers for Fractional- N Frequency Synthesizers. *Mai, D.*, +, *TCSI Oct. 2018 3279-3290*

A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*

A Pulse Frequency Modulation Interpretation of VCOs Enabling VCO-ADC Architectures With Extended Noise Shaping. *Gutierrez, E.*, +, *TCSI Feb. 2018 444-457*

A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S.*, +, *TCSI March 2018 870-880*

- A Systematic Design Method for Direct Delta-Sigma Receivers. *Englund, M.*, +, *TCSI Aug. 2018 2389-2402*
- All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs. *Gebreyohannes, F.T.*, +, *TCSI Nov. 2018 3956-3969*
- An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G.*, +, *TCSI June 2018 1887-1896*
- An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop. *Chen, P.*, +, *TCSI Nov. 2018 3734-3744*
- Analysis and Modeling of Chopping Phase Non-Overlap in Continuous-Time $\Delta\Sigma$ Modulators. *Singh, K.*, *TCSI Oct. 2018 3216-3226*
- Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*
- Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. *Manivannan, S.*, +, *TCSI Oct. 2018 3207-3215*
- Digital Complex Delta-Sigma Modulators With Highly Configurable Notches for Multi-Standard Coexistence in Wireless Transmitters. *Marin, R.*, +, *TCSI Jan. 2018 343-352*
- Loop-Filter Design and Analysis for Delta-Sigma Modulators and Over-sampled IIR Filters. *Sienko, M.*, *TCSI Dec. 2018 4121-4132*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S.*, +, *TCSI Dec. 2018 4110-4120*
- Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*
- Design automation**
- Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*
- Differential equations**
- Generalized Analytical Equations for Injected Ring Oscillator With RC-Load. *Hazeri, A.R.*, +, *TCSI Jan. 2018 223-234*
- Differentiating circuits**
- A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation. *Bu, S.*, +, *TCSI Oct. 2018 3578-3591*
- Digital arithmetic**
- A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*
- A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*
- Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S.*, +, *TCSI Aug. 2018 2477-2490*
- FIR Filter Realization via Deferred End-Around Carry Modular Addition. *Belghadr, A.*, +, *TCSI Sept. 2018 2878-2888*
- Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves. *Li, L.*, +, *TCSI Jan. 2018 154-162*
- Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomial and Trinomial Over $GF(2^m)$. *Shao, Q.*, +, *TCSI Aug. 2018 2455-2465*
- Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design. *Low, J.Y.L.*, +, *TCSI Jan. 2018 175-184*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- Digital circuits**
- A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*
- Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*
- Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*
- QBF-Based Post-Silicon Debug of Speed-Paths Under Timing Variations. *Alizadeh, B.*, +, *TCSI Dec. 2018 4326-4335*
- Digital control**
- A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*
- A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*
- Digital filters**
- A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S.*, +, *TCSI Sept. 2018 3037-3048*
- Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S.*, +, *TCSI Sept. 2018 2832-2841*
- Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*
- Digital integrated circuits**
- A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018 1909-1918*
- Digital phase locked loops**
- A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection. *Cho, S.*, +, *TCSI Sept. 2018 2691-2702*
- A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S.*, +, *TCSI Sept. 2018 3037-3048*
- A Digital Phase-Locked Loop With Background Supply Voltage Sensitivity Minimization. *Tien, C.*, +, *TCSI June 2018 1830-1839*
- A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
- An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F.*, +, *TCSI Nov. 2018 3756-3768*
- Multi-Rate DEM With Mismatch-Noise Cancellation for DCOs in Digital PLLs. *Alvarez-Fontecilla, E.*, +, *TCSI Oct. 2018 3125-3137*
- PLL-Based Wideband Frequency Modulator: Two-Point Injection Versus Pre-Emphasis Technique. *Cherniak, D.*, +, *TCSI March 2018 914-924*
- Digital signal processing chips**
- A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*
- Feedforward FFT Hardware Architectures Based on Rotator Allocation. *Garrido, M.*, +, *TCSI Feb. 2018 581-592*
- Digital-analog conversion**
- A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H.*, +, *TCSI Nov. 2018 3639-3650*
- A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver. *Jung, D.*, +, *TCSI Nov. 2018 3688-3697*
- A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. *Fan, H.*, +, *TCSI Nov. 2018 3698-3706*
- A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- A High-Voltage DAC-Based Transmitter for Coded Signals in High Frequency Ultrasound Imaging Applications. *Ku, P.*, +, *TCSI Sept. 2018 2797-2809*
- A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
- A Reconfigurable 10-to-12-b 80-to-20-MS/s Bandwidth Scalable SAR ADC. *Shen, Y.*, +, *TCSI Jan. 2018 51-60*
- Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D.*, +, *TCSI Feb. 2018 421-433*
- Area-Efficient Time-Shared Digital-to-Analog Converter With Dual Sampling for AMOLED Column Driver IC's. *An, T.*, +, *TCSI Oct. 2018 3227-3240*
- Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique. *Wang, J.*, +, *TCSI Aug. 2018 2378-2388*
- Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S.*, +, *TCSI Sept. 2018 2832-2841*
- Dipole antenna arrays**
- Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*
- Directed graphs**
- Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks. *Wang, H.*, +, *TCSI Dec. 2018 4336-4348*
- Discrete systems**
- Loop-Filter Design and Analysis for Delta-Sigma Modulators and Over-sampled IIR Filters. *Sienko, M.*, *TCSI Dec. 2018 4121-4132*
- Discrete time filters**
- Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N.*, +, *TCSI Aug. 2018 2403-2410*

Discrete time systems

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M., +, TCSI Sept. 2018 3005-3013*

Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D., +, TCSI Aug. 2018 2571-2580*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y., +, TCSI July 2018 2256-2268*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Discrete wavelet transforms

High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K., +, TCSI Feb. 2018 606-617*

Diseases

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P., +, TCSI Feb. 2018 663-676*

Disk drives

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A., +, TCSI Feb. 2018 556-566*

Distance measurement

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F., +, TCSI Feb. 2018 783-792*

Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes. *Beer, M., +, TCSI March 2018 970-981*

Distortion

Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J., +, TCSI Sept. 2018 3085-3098*

Distributed control

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X., +, TCSI July 2018 2243-2255*

Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S., +, TCSI April 2018 1377-1385*

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y., +, TCSI April 2018 1386-1394*

Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks. *Wang, H., +, TCSI Dec. 2018 4336-4348*

Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K., +, TCSI May 2018 1696-1706*

Distribution networks

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A., +, TCSI Aug. 2018 2547-2558*

Diversity reception

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W., +, TCSI Jan. 2018 14-25*

Dividing circuits

A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F., +, TCSI March 2018 935-945*

DRAM chips

A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R., +, TCSI April 2018 1245-1256*

Gain-Cell Embedded DRAM-Based Physical Unclonable Function. *Giterman, R., +, TCSI Dec. 2018 4208-4218*

Driver circuits

A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J., +, TCSI Jan. 2018 331-342*

A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver. *Jung, D., +, TCSI Nov. 2018 3688-3697*

A Current-Accuracy-Enhanced Wide-Input-Range DC–DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z., +, TCSI Nov. 2018 3996-4006*

Area-Efficient Time-Shared Digital-to-Analog Converter With Dual Sampling for AMOLED Column Driver IC's. *An, T., +, TCSI Oct. 2018 3227-3240*

Dynamic programming

A Scalable Low-Power Reconfigurable Accelerator for Action-Dependent Heuristic Dynamic Programming. *Zheng, N., +, TCSI June 2018 1897-1908*

Dynamic range

An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F., +, TCSI Aug. 2018 2524-2533*

E**Eigenvalues and eigenfunctions**

Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. *Sloan, J.T., +, TCSI Jan. 2018 3-13*

Electric breakdown

Brushing Up on the Urbanek Black Box Arc Model. *Bizzarri, F., +, TCSI May 2018 1675-1683*

Electric current control

A Current-Accuracy-Enhanced Wide-Input-Range DC–DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z., +, TCSI Nov. 2018 3996-4006*

A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique. *Wu, J., +, TCSI Sept. 2018 3099-3109*

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A., +, TCSI Feb. 2018 842-853*

Electric current measurement

An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G., +, TCSI June 2018 1887-1896*

Electric impedance imaging

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y., +, TCSI Nov. 2018 3810-3820*

Electrical conductivity

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L., +, TCSI Aug. 2018 2559-2570*

Electrocardiography

A 18.5 nW 12-bit 1-ks/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μ m CMOS. *Seo, M., +, TCSI Nov. 2018 3617-3627*

A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J., +, TCSI Nov. 2018 3800-3809*

A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S., +, TCSI Sept. 2018 2774-2783*

Electrochemical devices

A 16 x 16 CMOS Amperometric Microelectrode Array for Simultaneous Electrochemical Measurements. *Giagkoulovits, C., +, TCSI Sept. 2018 2821-2831*

Electrochemical electrodes

A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J., +, TCSI Sept. 2018 2810-2820*

Electrochemical sensors

A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J., +, TCSI Sept. 2018 2810-2820*

Electroencephalography

A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N., +, TCSI Dec. 2018 4051-4061*

Electromagnetic interference

A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M., +, TCSI Nov. 2018 3885-3896*

Electromagnetic shielding

Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E., +, TCSI Oct. 2018 3435-3444*

Electromagnetic wave attenuation

A Cartesian Error Feedback Architecture. *Li, J., +, TCSI March 2018 1133-1142*

Electronic design automation

Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits. *Yan, C., +, TCSI March 2018 1075-1085*

NCL Synthesis With Conventional EDA Tools: Technology Mapping and Optimization. *Moreira, M.T., +, TCSI June 2018 1981-1993*

Electronic engineering computing

- Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S., +, TCSI Dec. 2018 4285-4298*
- Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V., +, TCSI March 2018 1051-1062*

Elemental semiconductors

- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A., +, TCSI Nov. 2018 3830-3841*
- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M., +, TCSI June 2018 2005-2014*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A., +, TCSI Dec. 2018 4219-4232*

Embedded systems

- A Low-Power Vision System With Adaptive Background Subtraction and Image Segmentation for Unusual Event Detection. *Benetti, M., +, TCSI Nov. 2018 3842-3853*
- Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data. *Buschjager, S., +, TCSI Jan. 2018 209-222*
- Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J., +, TCSI June 2018 1941-1953*
- Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A., +, TCSI May 2018 1614-1627*

Energy conservation

- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J., +, TCSI May 2018 1567-1580*
- An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture. *Prasad, N., +, TCSI Oct. 2018 3543-3554*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S., +, TCSI Dec. 2018 4110-4120*

Energy consumption

- An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture. *Prasad, N., +, TCSI Oct. 2018 3543-3554*
- Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y., +, TCSI Jan. 2018 307-318*

Energy harvesting

- A 8 mV/+15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A., +, TCSI April 2018 1454-1467*
- A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting. *Mu, J., +, TCSI Aug. 2018 2631-2640*
- A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting. *Dezyani, M., +, TCSI Oct. 2018 3568-3577*
- A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z., +, TCSI May 2018 1744-1757*
- A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X., +, TCSI Feb. 2018 793-803*
- A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J., +, TCSI Sept. 2018 2810-2820*
- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J., TCSI May 2018 1758-1770*
- An Efficient Self-Powered Piezoelectric Energy Harvesting CMOS Interface Circuit Based on Synchronous Charge Extraction Technique. *Shi, G., +, TCSI Feb. 2018 804-817*
- Compact Fast-Waking Light/Heat-Harvesting 0.18- μm CMOS Switched-Inductor Charger. *Blanco, A.A., +, TCSI June 2018 2024-2034*
- Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M., +, TCSI Jan. 2018 366-379*
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M., +, TCSI June 2018 2048-2057*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W., +, TCSI Jan. 2018 406-418*

Entropy

- Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H., +, TCSI Feb. 2018 593-605*
- One-Dimensional Nonlinear Model for Producing Chaos. *Hua, Z., +, TCSI Jan. 2018 235-246*

Equalizers

- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J., +, TCSI Jan. 2018 331-342*
- Design of an On-Silicon-Interposer Passive Equalizer for Next Generation High Bandwidth Memory With Data Rate Up To 8 Gb/s. *Jeon, Y., +, TCSI July 2018 2293-2303*

Equivalent circuits

- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*
- Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J., +, TCSI Dec. 2018 4233-4246*
- Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A., +, TCSI Dec. 2018 4157-4168*

Error analysis

- A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. *Abbasalizadeh, S., +, TCSI Sept. 2018 2917-2928*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W., +, TCSI Sept. 2018 2856-2868*

Error correction

- Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S., TCSI Dec. 2018 4404-4412*
- Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H., +, TCSI Feb. 2018 593-605*

Error correction codes

- A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture. *Condo, C., +, TCSI April 2018 1420-1431*
- Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S., TCSI Dec. 2018 4404-4412*
- Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B., +, TCSI Sept. 2018 3074-3084*
- On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging. *Islam, M.N., +, TCSI March 2018 960-969*
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R., +, TCSI April 2018 1293-1302*
- Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV. *van Santen, V.M., +, TCSI Jan. 2018 293-306*
- Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K., +, TCSI July 2018 2183-2195*

Error statistics

- A 53 dB Ω 7-GHz Inductorless Transimpedance Amplifier and a 1-THz+ GBP Limiting Amplifier in 0.13- μm CMOS. *Ray, S., +, TCSI Aug. 2018 2365-2377*
- A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture. *Condo, C., +, TCSI April 2018 1420-1431*
- A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K., +, TCSI Feb. 2018 769-782*
- A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y., +, TCSI Nov. 2018 3864-3873*
- A Maximum-Likelihood Sequence Detection Powered ADC-Based Serial Link. *Song, S., +, TCSI July 2018 2269-2278*
- A Novel Transmitter Architecture for Spectrally-Precoded OFDM. *Mohamad, M., +, TCSI Aug. 2018 2592-2605*
- Design of an On-Silicon-Interposer Passive Equalizer for Next Generation High Bandwidth Memory With Data Rate Up To 8 Gb/s. *Jeon, Y., +, TCSI July 2018 2293-2303*
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H., +, TCSI Oct. 2018 3529-3542*
- Time-Based Sensing for Reference-Less and Robust Read in STT-MRAM Memories. *Trinh, Q., +, TCSI Oct. 2018 3338-3348*

F**Fading channels**

- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W., +, TCSI Jan. 2018 14-25*

Fast Fourier transforms

An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators. *Le Ba, N.*, +, *TCSI Oct. 2018 3291-3299*

Design and Implementation of Flexible and Reconfigurable SDF-Based FFT Chip Architecture With Changeable-Radix Processing Elements. *Shih, X.*, +, *TCSI Nov. 2018 3942-3955*

Feedforward FFT Hardware Architectures Based on Rotator Allocation. *Garrido, M.*, +, *TCSI Feb. 2018 581-592*

VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*

Fault detection

Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y.*, +, *TCSI Oct. 2018 3492-3505*

Fault diagnosis

An ATPG Method for Double Stuck-At Faults by Analyzing Propagation Paths of Single Faults. *Wang, P.*, +, *TCSI March 2018 1063-1074*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z.*, +, *TCSI May 2018 1664-1674*

Fault simulation

Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z.*, +, *TCSI May 2018 1664-1674*

Fault tolerance

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*

Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018 1293-1302*

Fault tolerant computing

Homeostatic Fault Tolerance in Spiking Neural Networks: A Dynamic Hardware Perspective. *Johnson, A.P.*, +, *TCSI Feb. 2018 687-699*

Feature detection

A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P.*, +, *TCSI Oct. 2018 3362-3375*

Feature extraction

A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P.*, +, *TCSI Oct. 2018 3362-3375*

A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things. *Du, L.*, +, *TCSI Jan. 2018 198-208*

Feedback

A Cartesian Error Feedback Architecture. *Li, J.*, +, *TCSI March 2018 1133-1142*

A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S.*, +, *TCSI March 2018 870-880*

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*

Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S.*, +, *TCSI April 2018 1377-1385*

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, .*, +, *TCSI Feb. 2018 650-662*

Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y.*, +, *TCSI April 2018 1386-1394*

Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018 2035-2047*

Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K.*, +, *TCSI May 2018 1696-1706*

Min-Max Design of Error Feedback Quantizers Without Overloading. *Ohno, S.*, +, *TCSI April 2018 1395-1405*

New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y.*, +, *TCSI Sept. 2018 2961-2969*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle. *Ma, Q.*, +, *TCSI May 2018 1684-1695*

Feedback amplifiers

A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*

Feedforward

A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M.*, +, *TCSI Nov. 2018 3675-3687*

A Current-Accuracy-Enhanced Wide-Input-Range DC-DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z.*, +, *TCSI Nov. 2018 3996-4006*

Feedforward FFT Hardware Architectures Based on Rotator Allocation. *Garrido, M.*, +, *TCSI Feb. 2018 581-592*

Feedforward neural networks

A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things. *Du, L.*, +, *TCSI Jan. 2018 198-208*

An Architecture to Accelerate Convolution in Deep Neural Networks. *Ardakani, A.*, +, *TCSI April 2018 1349-1362*

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J.*, +, *TCSI June 2018 1941-1953*

Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S.*, +, *TCSI Dec. 2018 4285-4298*

Field buses

Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*

Field effect MIMIC

A 76–84 GHz CMOS 4 \times Subharmonic Mixer With Internal Phase Correction. *Plessas, F.*, +, *TCSI July 2018 2083-2096*

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting. *Li, T.*, +, *TCSI April 2018 1406-1419*

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*

Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

Field effect MMIC

1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*

A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. *Abbasalizadeh, S.*, +, *TCSI Sept. 2018 2917-2928*

An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F.*, +, *TCSI Nov. 2018 3756-3768*

Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

Field effect transistor switches

Comprehensive Analysis of Distortion in the Passive FET Sample-and-Hold Circuit. *Izuka, T.*, +, *TCSI April 2018 1157-1173*

Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*

Field effect transistors

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*

Field programmable gate arrays

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 \times 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018 2889-2902*

A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M.*, +, *TCSI Oct. 2018 3349-3361*

A Low-Latency and Low-Complexity Point-Multiplication in ECC. *Salarifard, R.*, +, *TCSI Sept. 2018 2869-2877*

A Low-Power Vision System With Adaptive Background Subtraction and Image Segmentation for Unusual Event Detection. *Benetti, M.*, +, *TCSI Nov. 2018 3842-3853*

- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018 758-768*
- A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization. *Zhang, X.*, +, *TCSI Oct. 2018 3312-3325*
- A Resistive RAM-Based FPGA Architecture Equipped With Efficient Programming Circuitry. *Khaleghi, B.*, +, *TCSI July 2018 2196-2209*
- A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions. *Barbareschi, M.*, +, *TCSI Feb. 2018 700-711*
- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*
- Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data. *Buschjager, S.*, +, *TCSI Jan. 2018 209-222*
- Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J.*, +, *TCSI June 2018 1941-1953*
- Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F.*, +, *TCSI Oct. 2018 3555-3567*
- Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*
- Hardware Implementation of an Event-Based Message Passing Graphical Model Network. *Chien, C.*, +, *TCSI Sept. 2018 2739-2752*
- High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K.*, +, *TCSI Feb. 2018 606-617*
- Homeostatic Fault Tolerance in Spiking Neural Networks: A Dynamic Hardware Perspective. *Johnson, A.P.*, +, *TCSI Feb. 2018 687-699*
- Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves. *Li, L.*, +, *TCSI Jan. 2018 154-162*
- Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomial and Trinomial Over $GF(2^m)$. *Shao, Q.*, +, *TCSI Aug. 2018 2455-2465*
- Modular Design of High-Efficiency Hardware Median Filter Architecture. *Lin, S.*, +, *TCSI June 2018 1929-1940*
- Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A.*, +, *TCSI Nov. 2018 3897-3906*
- Superior Execution Time Design of a Space/Spatial-Frequency Optimal Filter for Highly Nonstationary 2D FM Signal Estimation. *Ivanovic, V.N.*, +, *TCSI Oct. 2018 3376-3389*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*
- Unified Digital Modulation Techniques for DC-DC Converters Over a Wide Operating Range: Implementation, Modeling, and Design Guidelines. *Mandi, B.C.*, +, *TCSI April 2018 1442-1453*
- VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*
- Filtering**
- Data-Driven Filtering for Nonlinear Systems With Bounded Noises and Quantized Measurements. *Xia, Y.*, +, *TCSI Oct. 2018 3404-3413*
- Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. *Manivannan, S.*, +, *TCSI Oct. 2018 3207-3215*
- Filtering theory**
- A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*
- A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks. *Zhang, S.*, +, *TCSI Feb. 2018 638-649*
- A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A.*, +, *TCSI Sept. 2018 3060-3073*
- Approximate Multipliers Based on New Approximate Compressors. *Esposito, D.*, +, *TCSI Dec. 2018 4169-4182*
- Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*
- Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*
- Low-Cost Lifting Architecture and Lossless Implementation of Daubechies-8 Wavelets. *Hasan, M.M.*, +, *TCSI Aug. 2018 2515-2523*
- Min-Max Design of Error Feedback Quantizers Without Overloading. *Ohno, S.*, +, *TCSI April 2018 1395-1405*
- Resilient Filtering for Linear Time-Varying Repetitive Processes Under Uniform Quantizations and Round-Robin Protocols. *Wang, F.*, +, *TCSI Sept. 2018 2992-3004*
- Finite element analysis**
- Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A.*, +, *TCSI Aug. 2018 2547-2558*
- Finite state machines**
- A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X.*, +, *TCSI Feb. 2018 793-803*
- FIR filters**
- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J.*, +, *TCSI Jan. 2018 331-342*
- A Computationally Efficient Reconfigurable Constant Multiplication Architecture Based on CSD Decoded Vertical-Horizontal Common Sub-Expression Elimination Algorithm. *Hatai, I.*, +, *TCSI Jan. 2018 130-140*
- All-Digital Blind Background Calibration Technique for Any Channel Time-Interleaved ADC. *Qiu, Y.*, +, *TCSI Aug. 2018 2503-2514*
- Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies. *Huang, X.*, +, *TCSI Feb. 2018 628-637*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*
- De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, .*, +, *TCSI Feb. 2018 650-662*
- Design and Implementation of Low Complexity 2-D Variable Digital FIR Filters Using Single-Parameter-Tunable 2-D Farrow Structure. *Bindima, T.*, +, *TCSI Feb. 2018 618-627*
- Design of Least-Squares and Minimax Composite Filters. *Lu, W.*, +, *TCSI March 2018 982-991*
- Efficient Shift-Add Implementation of FIR Filters Using Variable Partition Hybrid Form Structures. *Ray, D.*, +, *TCSI Dec. 2018 4247-4257*
- FIR Filter Realization via Deferred End-Around Carry Modular Addition. *Belghadr, A.*, +, *TCSI Sept. 2018 2878-2888*
- Joint Sparsity and Order Optimization Based on ADMM With Non-Uniform Group Hard Thresholding. *Matsuoka, R.*, +, *TCSI May 2018 1602-1613*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*
- Firmware**
- Auto-Erasable RRAM Architecture Secured Against Physical and Firmware Attacks. *Garcia-Redondo, F.*, +, *TCSI May 2018 1581-1590*
- Fixed point arithmetic**
- CORDIC-Based Architecture for Computing Nth Root and Its Implementation. *Luo, Y.*, +, *TCSI Dec. 2018 4183-4195*
- Flash memories**
- Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A.*, +, *TCSI Jan. 2018 353-365*
- Flicker noise**
- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*
- Analysis and Modeling of Chopping Phase Non-Overlap in Continuous-Time $\Delta\Sigma$ Modulators. *Singh, K.*, *TCSI Oct. 2018 3216-3226*
- Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018 2127-2138*
- Flip-flops**
- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F.*, +, *TCSI March 2018 935-945*
- A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximized Timing Margin. *Chen, Y.*, +, *TCSI Sept. 2018 3014-3026*
- HTD: A Light-Weight Holosymmetrical Transition Detector for Wide-Voltage-Range Variation Resilient ICs. *Dai, W.*, +, *TCSI Nov. 2018 3907-3917*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018 1293-1302*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*

- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- True Random Number Generator Based on Flip-Flop Resolve Time Instability Boosted by Random Chaotic Source. *Wieczorek, P.Z.*, +, *TCSI April 2018 1279-1292*
- Floating point arithmetic**
Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A.*, +, *TCSI May 2018 1614-1627*
- FM radar**
Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*
- Focal planes**
Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. *Luo, Y.*, +, *TCSI May 2018 1555-1566*
Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P.*, +, *TCSI March 2018 925-934*
- Forward error correction**
A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture. *Condo, C.*, +, *TCSI April 2018 1420-1431*
- Fourier series**
Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect. *Kumar, M.*, *TCSI Oct. 2018 3592-3601*
- Fourier transforms**
A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*
Random Fourier Filters Under Maximum Correntropy Criterion. *Wang, S.*, +, *TCSI Oct. 2018 3390-3403*
- Frequency control**
An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y.*, +, *TCSI July 2018 2161-2168*
Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*
Multi-Rate DEM With Mismatch-Noise Cancellation for DCOs in Digital PLLs. *Alvarez-Fontecilla, E.*, +, *TCSI Oct. 2018 3125-3137*
- Frequency converters**
Modeling and Identification of Ultra-Wideband Analog Multipliers. *Pedross-Engel, A.*, +, *TCSI Jan. 2018 283-292*
- Frequency division multiplexing**
A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*
- Frequency estimation**
Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*
- Frequency measurement**
An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*
- Frequency modulation**
A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
One Mbps 1 nJ/b 3.5-4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*
PLL-Based Wideband Frequency Modulator: Two-Point Injection Versus Pre-Emphasis Technique. *Cherniak, D.*, +, *TCSI March 2018 914-924*
- Frequency response**
Amplifier Design for Specified Frequency Response Profiles Using Nullors-Hearing Aids, a Case Study. *Hashemian, R.*, *TCSI Dec. 2018 4147-4156*
Joint Sparsity and Order Optimization Based on ADMM With Non-Uniform Group Hard Thresholding. *Matsuoka, R.*, +, *TCSI May 2018 1602-1613*
Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*
- Frequency shift keying**
400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z.*, +, *TCSI Feb. 2018 745-757*
A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S.*, +, *TCSI Sept. 2018 3037-3048*
One Mbps 1 nJ/b 3.5-4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*
- Frequency synthesizers**
A Design Method for Nested MASH-SQ Hybrid Divider Controllers for Fractional- N Frequency Synthesizers. *Mai, D.*, +, *TCSI Oct. 2018 3279-3290*
An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y.*, +, *TCSI July 2018 2161-2168*
- Frequency-domain analysis**
A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters. *Toledo de la Garza, K.*, +, *TCSI April 2018 1303-1313*
Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input. *Faifer, M.*, +, *TCSI May 2018 1652-1663*
Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S.*, +, *TCSI Sept. 2018 2842-2855*
Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D.*, +, *TCSI Aug. 2018 2571-2580*
- Fuel cells**
A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*

G

Gain control

A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*

Gallium arsenide

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*

Gallium compounds

Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D.*, +, *TCSI Sept. 2018 2715-2725*

Gas blast circuit breakers

Brushing Up on the Urbanek Black Box Arc Model. *Bizzarri, F.*, +, *TCSI May 2018 1675-1683*

Gaussian distribution

A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*

Gaussian processes

An Efficient Bayesian Optimization Approach for Automated Optimization of Analog Circuits. *Lyu, W.*, +, *TCSI June 2018 1954-1967*

Ge-Si alloys

W-Band (92-100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S.*, +, *TCSI July 2018 2070-2082*
A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting. *Li, T.*, +, *TCSI April 2018 1406-1419*

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*

A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*

A W-Band Balanced Power Amplifier Using Broadside Coupled Stripline Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J.*, +, *TCSI July 2018 2139-2150*

BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y.*, +, *TCSI April 2018 1210-1223*
Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P.*, +, *TCSI Nov. 2018 3780-3789*

Genetic algorithms

Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*

Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*

Gradient methods

Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*

Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Graph theory

Event-Triggered Control for Consensus Problem in Multi-Agent Systems With Quantized Relative State Measurements and External Disturbance. *Wu, Z., +, TCSI July 2018 2232-2242*

Hardware Implementation of an Event-Based Message Passing Graphical Model Network. *Chien, C., +, TCSI Sept. 2018 2739-2752*

Improving Time-Efficiency of Fault-Coverage Simulation for MOS Analog Circuit. *Liu, Z., +, TCSI May 2018 1664-1674*

Graphene devices

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L., +, TCSI Aug. 2018 2559-2570*

Graphics processing units

Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A., +, TCSI May 2018 1614-1627*

Gyroscopes

A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S., +, TCSI March 2018 870-880*

H**Handicapped aids**

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, ., +, TCSI Feb. 2018 650-662*

Hard disks

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A., +, TCSI Feb. 2018 556-566*

Hardware

Superior Execution Time Design of a Space/Spatial-Frequency Optimal Filter for Highly Nonstationary 2D FM Signal Estimation. *Ivanovic, V.N., +, TCSI Oct. 2018 3376-3389*

Hardware description languages

CORDIC-Based Architecture for Computing Nth Root and Its Implementation. *Luo, Y., +, TCSI Dec. 2018 4183-4195*

Harmonic analysis

Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect. *Kumar, M., TCSI Oct. 2018 3592-3601*

Harmonic distortion

A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N., +, TCSI Dec. 2018 4051-4061*

A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S., +, TCSI Sept. 2018 2774-2783*

Harmonic oscillators (circuits)

On the Remarkable Performance of the Series-Resonance CMOS Oscillator. *Pepe, F., +, TCSI Feb. 2018 531-542*

Harmonics suppression

A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K., +, TCSI Jan. 2018 394-405*

Health care

A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K., +, TCSI Sept. 2018 2784-2796*

Hearing aids

Amplifier Design for Specified Frequency Response Profiles Using Nullors—Hearing Aids, a Case Study. *Hashemian, R., TCSI Dec. 2018 4147-4156*

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, ., +, TCSI Feb. 2018 650-662*

HEMT integrated circuits

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J., +, TCSI Oct. 2018 3150-3161*

High electron mobility transistors

Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D., +, TCSI Sept. 2018 2715-2725*

High-pass filters

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K., +, TCSI June 2018 1850-1861*

All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs. *Gebreyohannes, F.T., +, TCSI Nov. 2018 3956-3969*

Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S., +, TCSI Sept. 2018 2832-2841*

High-speed integrated circuits

A Power-Saving Adaptive Equalizer With a Digital-Controlled Self-Slope Detection. *Tu, Y., +, TCSI July 2018 2097-2108*

Hilbert transforms

All-Digital Blind Background Calibration Technique for Any Channel Time-Interleaved ADC. *Qiu, Y., +, TCSI Aug. 2018 2503-2514*

Humidity measurement

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M., +, TCSI Sept. 2018 2645-2656*

Humidity sensors

A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B., +, TCSI July 2018 2169-2182*

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M., +, TCSI Sept. 2018 2645-2656*

Hybrid integrated circuits

A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H., +, TCSI Nov. 2018 3639-3650*

A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R., +, TCSI March 2018 1086-1095*

I**IIR filters**

A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J., +, TCSI Jan. 2018 331-342*

A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters. *Toledo de la Garza, K., +, TCSI April 2018 1303-1313*

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, ., +, TCSI Feb. 2018 650-662*

Loop-Filter Design and Analysis for Delta-Sigma Modulators and Oversampled IIR Filters. *Sienko, M., TCSI Dec. 2018 4121-4132*

Image classification

An Architecture to Accelerate Convolution in Deep Neural Networks. *Ardakani, A., +, TCSI April 2018 1349-1362*

Image coding

Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. *Luo, Y., +, TCSI May 2018 1555-1566*

Image color analysis

Single Underwater Image Restoration Using Adaptive Attenuation-Curve Prior. *Wang, Y., +, TCSI March 2018 992-1002*

Image enhancement

Single Underwater Image Restoration Using Adaptive Attenuation-Curve Prior. *Wang, Y., +, TCSI March 2018 992-1002*

Image filtering

Approximate Multipliers Based on New Approximate Compressors. *Esposito, D., +, TCSI Dec. 2018 4169-4182*

High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K., +, TCSI Feb. 2018 606-617*

Image motion analysis

Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A., +, TCSI March 2018 1003-1015*

Image representation

Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A., +, TCSI March 2018 1003-1015*

Image resolution

Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. *Luo, Y., +, TCSI May 2018 1555-1566*

Image restoration

Single Underwater Image Restoration Using Adaptive Attenuation-Curve Prior. *Wang, Y., +, TCSI March 2018 992-1002*

Image sampling

High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K., +, TCSI Feb. 2018 606-617*

Image segmentation

A Low-Power Vision System With Adaptive Background Subtraction and Image Segmentation for Unusual Event Detection. *Benetti, M.*, +, *TCSI Nov. 2018 3842-3853*

An Algorithm of an X-ray Hit Allocation to a Single Pixel in a Cluster and Its Test-Circuit Implementation. *Deptuch, G.W.*, +, *TCSI Jan. 2018 185-197*

Image sensors

Asynchronous Spiking Pixel With Programmable Sensitivity to Illumination. *Lenero-Bardallo, J.A.*, +, *TCSI Nov. 2018 3854-3863*

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P.*, +, *TCSI March 2018 925-934*

Image sequences

Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A.*, +, *TCSI March 2018 1003-1015*

Impedance converters

Globally Optimal Matching Networks With Lossy Passives and Efficiency Bounds. *Chappidi, C.R.*, +, *TCSI Jan. 2018 257-269*

Optimal Design for Realizing a Grounded Fractional Order Inductor Using GIC. *Adhikary, A.*, +, *TCSI Aug. 2018 2411-2421*

Power-Handling Capacity and Nonlinearity Analysis for Distributed Electronic Impedance Synthesizer. *Zhao, Y.*, +, *TCSI April 2018 1340-1348*

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A.*, +, *TCSI Dec. 2018 4157-4168*

Impedance matching

A Cost-Effective Adaptive Rectifier for Low Power Loosely Coupled Wireless Power Transfer Systems. *Ozalevli, E.*, +, *TCSI July 2018 2318-2329*

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*

A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J.*, +, *TCSI July 2018 2139-2150*

Globally Optimal Matching Networks With Lossy Passives and Efficiency Bounds. *Chappidi, C.R.*, +, *TCSI Jan. 2018 257-269*

Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S.*, +, *TCSI Sept. 2018 2842-2855*

Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J.*, +, *TCSI April 2018 1234-1244*

Power-Handling Capacity and Nonlinearity Analysis for Distributed Electronic Impedance Synthesizer. *Zhao, Y.*, +, *TCSI April 2018 1340-1348*

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A.*, +, *TCSI Dec. 2018 4157-4168*

Transformer-Based Input Integrated Matching in Cascade Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

Inductance

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A.*, +, *TCSI Aug. 2018 2547-2558*

Inductance measurement

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

Inductive power transmission

A Cost-Effective Adaptive Rectifier for Low Power Loosely Coupled Wireless Power Transfer Systems. *Ozalevli, E.*, +, *TCSI July 2018 2318-2329*

A Pulse Energy Injection Inverter for the Switch-Mode Inductive Power Transfer System. *Wang, Y.*, +, *TCSI July 2018 2330-2340*

A Splitting Frequencies-Based Wireless Power and Information Simultaneous Transfer Method. *Kim, J.*, +, *TCSI Dec. 2018 4434-4445*

Dual-Phase-Shift Control Scheme With Current-Stress and Efficiency Optimization for Wireless Power Transfer Systems. *Li, Y.*, +, *TCSI Sept. 2018 3110-3121*

Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network. *Lotfi Navaii, M.*, +, *TCSI Oct. 2018 3255-3266*

Inductive sensors

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

Inductors

A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J.*, +, *TCSI Jan. 2018 331-342*

A 93% Peak Efficiency Fully-Integrated Multilevel Multistate Hybrid DC-DC Converter. *Abdulslam, A.*, +, *TCSI Aug. 2018 2617-2630*

A Current-Accuracy-Enhanced Wide-Input-Range DC-DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z.*, +, *TCSI Nov. 2018 3996-4006*

A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*

Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor. *Pu, Y.*, +, *TCSI Sept. 2018 2903-2916*

Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C.*, +, *TCSI March 2018 859-869*

Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*

Compact Fast-Waking Light/Heat-Harvesting 0.18- μm CMOS Switched-Inductor Charger. *Blanco, A.A.*, +, *TCSI June 2018 2024-2034*

Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M.*, +, *TCSI Jan. 2018 366-379*

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A.*, +, *TCSI Aug. 2018 2547-2558*

Optimal Design for Realizing a Grounded Fractional Order Inductor Using GIC. *Adhikary, A.*, +, *TCSI Aug. 2018 2411-2421*

TIME—Tunable Inductors Using MEMristors. *Wainstein, N.*, +, *TCSI May 2018 1505-1515*

Injection locked oscillators

A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection. *Cho, S.*, +, *TCSI Sept. 2018 2691-2702*

Integer programming

A Computationally Efficient Reconfigurable Constant Multiplication Architecture Based on CSD Decoded Vertical–Horizontal Common Sub-Expression Elimination Algorithm. *Hatai, I.*, +, *TCSI Jan. 2018 130-140*

A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N.*, +, *TCSI March 2018 946-959*

Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*

Integrated circuit design

A 8 mV/+15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A.*, +, *TCSI April 2018 1454-1467*

A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H.*, +, *TCSI Nov. 2018 3639-3650*

A 2-MS/s, 11.22 ENOB, Extended Input Range SAR ADC With Improved DNL and Offset Calculation. *Asghar, S.*, +, *TCSI Nov. 2018 3628-3638*

A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. *Fan, H.*, +, *TCSI Nov. 2018 3698-3706*

A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z.*, +, *TCSI Nov. 2018 3821-3829*

A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses. *Li, H.*, +, *TCSI Nov. 2018 4027-4034*

A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018 1909-1918*

A Low-Overhead Dynamic TCAM With Pipelined Read-Restore Refresh Scheme. *Mishra, S.*, +, *TCSI May 2018 1591-1601*

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique. *Wu, J.*, +, *TCSI Sept. 2018 3099-3109*

A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*

A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*

- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*
- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D.*, +, *TCSI Feb. 2018 421-433*
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M.*, +, *TCSI Jan. 2018 61-73*
- An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A.*, +, *TCSI Dec. 2018 4299-4312*
- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*
- Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*
- Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargaran, E.*, +, *TCSI March 2018 891-903*
- Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M.*, +, *TCSI Jan. 2018 366-379*
- Design and Hardware Implementation of Neuromorphic Systems With RRAM Synapses and Threshold-Controlled Neurons for Pattern Recognition. *Jiang, Y.*, +, *TCSI Sept. 2018 2726-2738*
- Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*
- Digitally Assisted On-Chip Body Bias Tuning Scheme for Ultra Low-Power VLSI Systems. *Okuhara, H.*, +, *TCSI Oct. 2018 3241-3254*
- Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. *Thangkhiew, P.L.*, +, *TCSI Aug. 2018 2466-2476*
- Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation. *Shi, G.*, *TCSI Sept. 2018 2939-2950*
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*
- High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters. *Allasasmeh, Y.*, +, *TCSI Nov. 2018 3970-3983*
- HTD: A Light-Weight Holosymmetrical Transition Detector for Wide-Voltage-Range Variation Resilient ICs. *Dai, W.*, +, *TCSI Nov. 2018 3907-3917*
- IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. *Saponara, S.*, +, *TCSI Jan. 2018 380-393*
- Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits. *Yan, C.*, +, *TCSI March 2018 1075-1085*
- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. *Huang, Y.*, +, *TCSI Nov. 2018 4017-4026*
- Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S.*, +, *TCSI Dec. 2018 4110-4120*
- Process Scalability of Pulse-Based Circuits for Analog Image Convolution. *D'Angelo, R.*, +, *TCSI Sept. 2018 2929-2938*
- Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design. *Low, J.Y.L.*, +, *TCSI Jan. 2018 175-184*
- Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P.*, +, *TCSI Jan. 2018 74-83*
- Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*
- Integrated circuit interconnections**
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits. *Yan, C.*, +, *TCSI March 2018 1075-1085*
- Integrated circuit layout**
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- Integrated circuit manufacture**
- A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R.*, +, *TCSI April 2018 1245-1256*
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J.*, +, *TCSI Nov. 2018 3800-3809*
- A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S.*, +, *TCSI April 2018 1174-1184*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*
- High-Performance Switched-Capacitor Boost-Buck Integrated Power Converters. *Allasasmeh, Y.*, +, *TCSI Nov. 2018 3970-3983*
- Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*
- Integrated circuit measurement**
- Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*
- Integrated circuit modeling**
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A.*, +, *TCSI Dec. 2018 4299-4312*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*
- Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A.*, +, *TCSI Aug. 2018 2547-2558*
- High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X.*, +, *TCSI March 2018 1143-1153*
- Integrated circuit noise**
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity. *Das, D.*, +, *TCSI Oct. 2018 3300-3311*
- Integrated circuit reliability**
- On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging. *Islam, M.N.*, +, *TCSI March 2018 960-969*
- Integrated circuit testing**
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H.*, +, *TCSI Feb. 2018 593-605*
- Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*
- Integrated circuit yield**
- Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. *Liu, S.*, +, *TCSI Feb. 2018 458-470*
- Integrated circuits**
- Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*

Integrated optoelectronics

- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*
- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*
- Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes. *Beer, M.*, +, *TCSI March 2018 970-981*

Integrating circuits

- Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*

Intelligent sensors

- A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z.*, +, *TCSI Nov. 2018 3821-3829*
- Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A.*, +, *TCSI Nov. 2018 3897-3906*

Interconnected systems

- Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y.*, +, *TCSI April 2018 1386-1394*

Interconnections

- Modeling and Analysis of Passive Switching Crossbar Arrays. *Fouda, M.E.*, +, *TCSI Jan. 2018 270-282*

Interference (signal)

- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*

Interference suppression

- 400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z.*, +, *TCSI Feb. 2018 745-757*
- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J.*, +, *TCSI Jan. 2018 331-342*
- A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A.*, +, *TCSI Oct. 2018 3174-3185*
- A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*
- A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A.*, +, *TCSI Sept. 2018 3060-3073*
- Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*
- Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*
- Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L.*, +, *TCSI June 2018 1875-1886*

Internet of Things

- A 0.2 V 32-Kb 10T SRAM With 41 nW Standby Power for IoT Applications. *Chien, Y.*, +, *TCSI Aug. 2018 2443-2454*
- A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things. *Du, L.*, +, *TCSI Jan. 2018 198-208*
- Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*
- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. *Huang, Y.*, +, *TCSI Nov. 2018 4017-4026*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*

Interpolation

- W -Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S.*, +, *TCSI July 2018 2070-2082*
- Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies. *Huang, X.*, +, *TCSI Feb. 2018 628-637*

Intersymbol interference

- A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J.*, +, *TCSI Jan. 2018 331-342*

Inverters

- A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting. *Dezyani, M.*, +, *TCSI Oct. 2018 3568-3577*

- A Combined Analytical-Numerical Methodology for Predicting Subharmonic Oscillation in H-Bridge Inverters Under Double Edge Modulation. *Aroudi, A.E.*, +, *TCSI July 2018 2341-2351*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- A Pulse Energy Injection Inverter for the Switch-Mode Inductive Power Transfer System. *Wang, Y.*, +, *TCSI July 2018 2330-2340*
- A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*
- Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect. *Kumar, M.*, *TCSI Oct. 2018 3592-3601*

Isolation technology

- A Double-Isolated DC-DC Converter Based on Integrated LC Resonant Barriers. *Greco, N.*, +, *TCSI Dec. 2018 4423-4433*

Iterative methods

- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128×8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M.*, +, *TCSI Oct. 2018 3349-3361*
- A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W.*, +, *TCSI Sept. 2018 2856-2868*
- Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*
- Lossless Systems Storage Function: New Results and Numerically Stable and Non-Iterative Computational Methods. *Kothiyari, A.*, +, *TCSI Dec. 2018 4349-4362*
- Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays. *Bernardini, A.*, +, *TCSI April 2018 1363-1376*

J**Jacobian matrices**

- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128×8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*

Jitter

- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*
- A Digital Phase-Locked Loop With Background Supply Voltage Sensitivity Minimization. *Tien, C.*, +, *TCSI June 2018 1830-1839*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*
- Analysis of Common-Mode Interference and Jitter of Clock Receiver Circuits With Improved Topology. *Yang, X.*, +, *TCSI June 2018 1819-1829*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*
- Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*
- Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*

L**Ladder filters**

- Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P.*, +, *TCSI Nov. 2018 3780-3789*

Ladder networks

Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. *Sloan, J.T., +, TCSI Jan. 2018 3-13*

Large-scale systems

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

LC circuits

A Double-Isolated DC-DC Converter Based on Integrated LC Resonant Barriers. *Greco, N., +, TCSI Dec. 2018 4423-4433*

A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S., +, TCSI Oct. 2018 3162-3173*

Amplifier Innovations for Improvement of Rotary Traveling Wave Oscillators. *Martchovsky, A., +, TCSI Feb. 2018 522-530*

Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H., +, TCSI Dec. 2018 4062-4071*

Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. *Sloan, J.T., +, TCSI Jan. 2018 3-13*

Lead compounds

Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M., +, TCSI Jan. 2018 366-379*

Leakage currents

A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L., +, TCSI Jan. 2018 95-106*

A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R., +, TCSI April 2018 1245-1256*

Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L., +, TCSI Dec. 2018 4072-4085*

Learning (artificial intelligence)

A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y., +, TCSI Feb. 2018 567-580*

A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y., +, TCSI Nov. 2018 3864-3873*

A Novel Memristor-Based Circuit Implementation of Full-Function Pavlov Associative Memory Accorded With Biological Feature. *Wang, Z., +, TCSI July 2018 2210-2220*

A Scalable Low-Power Reconfigurable Accelerator for Action-Dependent Heuristic Dynamic Programming. *Zheng, N., +, TCSI June 2018 1897-1908*

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z., +, TCSI April 2018 1314-1326*

Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data. *Buschjager, S., +, TCSI Jan. 2018 209-222*

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J., +, TCSI June 2018 1941-1953*

Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A., +, TCSI Nov. 2018 3897-3906*

X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design. *Liu, R., +, TCSI Oct. 2018 3459-3468*

Least mean squares methods

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G., +, TCSI May 2018 1717-1730*

A Family of Adaptive Decorrelation NLMS Algorithms and Its Diffusion Version Over Adaptive Networks. *Zhang, S., +, TCSI Feb. 2018 638-649*

Approximate Multipliers Based on New Approximate Compressors. *Esposito, D., +, TCSI Dec. 2018 4169-4182*

Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W., +, TCSI Sept. 2018 2856-2868*

Least squares approximations

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C., +, TCSI Sept. 2018 2889-2902*

Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies. *Huang, X., +, TCSI Feb. 2018 628-637*

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, ., +, TCSI Feb. 2018 650-662*

Design of Least-Squares and Minimax Composite Filters. *Lu, W., +, TCSI March 2018 982-991*

Legged locomotion

Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits. *Lodi, M., +, TCSI March 2018 1028-1039*

Lenses

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P., +, TCSI March 2018 925-934*

Light emitting diodes

A Current-Accuracy-Enhanced Wide-Input-Range DC-DC LED Driver With Feedforward Synchronous Current Control. *Liu, Z., +, TCSI Nov. 2018 3996-4006*

Lighting

Asynchronous Spiking Pixel With Programmable Sensitivity to Illumination. *Lenero-Bardallo, J.A., +, TCSI Nov. 2018 3854-3863*

Linear differential equations

Analysis and Design of Nonlinear Circuits With a Self-Consistent Carleman Linearization. *Weber, H., +, TCSI Dec. 2018 4272-4284*

Linear matrix inequalities

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M., +, TCSI Sept. 2018 3005-3013*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Linear phase filters

Design of Least-Squares and Minimax Composite Filters. *Lu, W., +, TCSI March 2018 982-991*

Linear programming

A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N., +, TCSI March 2018 946-959*

Linear systems

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X., +, TCSI July 2018 2243-2255*

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y., +, TCSI April 2018 1386-1394*

Event-Triggered Control for Consensus Problem in Multi-Agent Systems With Quantized Relative State Measurements and External Disturbance. *Wu, Z., +, TCSI July 2018 2232-2242*

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y., +, TCSI Sept. 2018 2961-2969*

Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle. *Ma, Q., +, TCSI May 2018 1684-1695*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y., +, TCSI July 2018 2256-2268*

Linearization techniques

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C., +, TCSI Sept. 2018 2889-2902*

Load regulation

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A., +, TCSI Feb. 2018 842-853*

Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I., +, TCSI June 2018 2035-2047*

Local area networks

Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M., +, TCSI June 2018 2048-2057*

Logic circuits

Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W., +, TCSI Sept. 2018 2856-2868*

HTD: A Light-Weight Holosymmetrical Transition Detector for Wide-Voltage-Range Variation Resilient ICs. *Dai, W., +, TCSI Nov. 2018 3907-3917*

- Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*
- QBF-Based Post-Silicon Debug of Speed-Paths Under Timing Variations. *Alizadeh, B.*, +, *TCSI Dec. 2018 4326-4335*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*
- Logic design**
- A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F.*, +, *TCSI March 2018 935-945*
- A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximized Timing Margin. *Chen, Y.*, +, *TCSI Sept. 2018 3014-3026*
- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*
- A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N.*, +, *TCSI March 2018 946-959*
- A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018 2889-2902*
- A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J.*, +, *TCSI May 2018 1567-1580*
- An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators. *Le Ba, N.*, +, *TCSI Oct. 2018 3291-3299*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W.*, +, *TCSI Sept. 2018 2856-2868*
- Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. *Thangkhiew, P.L.*, +, *TCSI Aug. 2018 2466-2476*
- High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K.*, +, *TCSI Feb. 2018 606-617*
- Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomials and Trinomials Over $GF(2^m)$. *Shao, Q.*, +, *TCSI Aug. 2018 2455-2465*
- Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*
- Modular Design of High-Efficiency Hardware Median Filter Architecture. *Lin, S.*, +, *TCSI June 2018 1929-1940*
- NCL Synthesis With Conventional EDA Tools: Technology Mapping and Optimization. *Moreira, M.T.*, +, *TCSI June 2018 1981-1993*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B.*, +, *TCSI Jan. 2018 141-153*
- QBF-Based Post-Silicon Debug of Speed-Paths Under Timing Variations. *Alizadeh, B.*, +, *TCSI Dec. 2018 4326-4335*
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018 1293-1302*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*
- Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C.*, +, *TCSI Dec. 2018 4313-4325*
- Tap Delay-and-Accumulate Cost Aware Coefficient Synthesis Algorithm for the Design of Area-Power Efficient FIR Filters. *Chen, J.*, +, *TCSI Feb. 2018 712-722*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design. *Liu, R.*, +, *TCSI Oct. 2018 3459-3468*
- Logic gates**
- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*
- A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y.*, +, *TCSI Nov. 2018 3864-3873*
- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J.*, +, *TCSI May 2018 1567-1580*
- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. *Thangkhiew, P.L.*, +, *TCSI Aug. 2018 2466-2476*
- Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D.*, +, *TCSI Nov. 2018 3874-3884*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*
- Logic testing**
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*
- Long Term Evolution**
- A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A.*, +, *TCSI Sept. 2018 3060-3073*
- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018 758-768*
- Design and Implementation of Flexible and Reconfigurable SDF-Based FFT Chip Architecture With Changeable-Radix Processing Elements. *Shih, X.*, +, *TCSI Nov. 2018 3942-3955*
- Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J.*, +, *TCSI Sept. 2018 3085-3098*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- Low noise amplifiers**
- 40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*
- A K -/ Ka -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J.*, +, *TCSI Sept. 2018 2679-2690*
- A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*
- A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*
- Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C.*, +, *TCSI March 2018 859-869*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J.*, +, *TCSI April 2018 1185-1195*
- Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargarani, E.*, +, *TCSI March 2018 891-903*
- Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*
- Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*
- Low-pass filters**
- A 0.49–13.3 MHz Tunable Fourth-Order LPF with Complex Poles Achieving 28.7 dBm OIP3. *Payandehnia, P.*, +, *TCSI Aug. 2018 2353-2364*
- A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering. *Singh, V.K.*, +, *TCSI July 2018 2304-2317*
- A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*
- A Novel Transmitter Architecture for Spectrally-Precoded OFDM. *Mohamad, M.*, +, *TCSI Aug. 2018 2592-2605*
- A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*
- A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*

- A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters. *Toledo de la Garza, K., +, TCSI April 2018 1303-1313*
- Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S., +, TCSI Sept. 2018 2832-2841*
- Low-power electronics**
- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E., +, TCSI Jan. 2018 39-50*
- A 8 mV/15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A., +, TCSI April 2018 1454-1467*
- A 0.12–0.4 V, Versatile 3-Transistor CMOS Voltage Reference for Ultra-Low Power Systems. *de Oliveira, A.C., +, TCSI Nov. 2018 3790-3799*
- A 0.2 V 32-Kb 10T SRAM With 41 nW Standby Power for IoT Applications. *Chien, Y., +, TCSI Aug. 2018 2443-2454*
- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y., +, TCSI Feb. 2018 567-580*
- A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L., +, TCSI Jan. 2018 95-106*
- A 0.6-V 10-bit 200-kS/s SAR ADC With Higher Side-Reset-and-Set Switching Scheme and Hybrid CAP-MOS DAC. *Zhang, H., +, TCSI Nov. 2018 3639-3650*
- A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking. *Bazrafshan, A., +, TCSI Oct. 2018 3186-3195*
- A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M., +, TCSI Nov. 2018 3675-3687*
- A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A., +, TCSI Oct. 2018 3414-3423*
- A 128 kb 7T SRAM Using a Single-Cycle Boosting Mechanism in 28-nm FD-SOI. *Mohammadi, B., +, TCSI April 2018 1257-1268*
- A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N., +, TCSI Dec. 2018 4051-4061*
- A 18.5 nW 12-bit 1-kS/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μ m CMOS. *Seo, M., +, TCSI Nov. 2018 3617-3627*
- A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z., +, TCSI July 2018 2118-2126*
- A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R., +, TCSI April 2018 1245-1256*
- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M., +, TCSI March 2018 1096-1109*
- A 60 mV Input Voltage, Process Tolerant Start-Up System for Thermoelectric Energy Harvesting. *Dezyani, M., +, TCSI Oct. 2018 3568-3577*
- A 76–84 GHz CMOS 4 \times Subharmonic Mixer With Internal Phase Correction. *Plessas, F., +, TCSI July 2018 2083-2096*
- A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K., +, TCSI July 2018 2109-2117*
- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J., +, TCSI Nov. 2018 3800-3809*
- A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation. *Bu, S., +, TCSI Oct. 2018 3578-3591*
- A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D., +, TCSI April 2018 1196-1209*
- A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y., +, TCSI Nov. 2018 3864-3873*
- A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S., +, TCSI June 2018 1909-1918*
- A Low-Overhead Dynamic TCAM With Pipelined Read-Restore Refresh Scheme. *Mishra, S., +, TCSI May 2018 1591-1601*
- A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H., +, TCSI Feb. 2018 510-521*
- A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M., +, TCSI Sept. 2018 2645-2656*
- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S., +, TCSI Oct. 2018 3162-3173*
- A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S., +, TCSI Nov. 2018 3745-3755*
- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J., +, TCSI May 2018 1567-1580*
- A Power-Saving Adaptive Equalizer With a Digital-Controlled Self-Slope Detection. *Tu, Y., +, TCSI July 2018 2097-2108*
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K., +, TCSI Sept. 2018 2784-2796*
- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A., +, TCSI Feb. 2018 498-509*
- A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z., +, TCSI May 2018 1744-1757*
- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S., +, TCSI Sept. 2018 2774-2783*
- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R., +, TCSI March 2018 1086-1095*
- A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J., +, TCSI Sept. 2018 2810-2820*
- Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M., +, TCSI Jan. 2018 61-73*
- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J., TCSI May 2018 1758-1770*
- An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S., +, TCSI April 2018 1174-1184*
- An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators. *Le Ba, N., +, TCSI Oct. 2018 3291-3299*
- An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sun, H., +, TCSI Dec. 2018 4037-4050*
- Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C., +, TCSI March 2018 859-869*
- Analysis and Design of a Passive Receiver Front-End Using an Inductive Antenna Impedance. *Liu, Y., +, TCSI Feb. 2018 733-744*
- Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J., +, TCSI April 2018 1185-1195*
- Compact Fast-Waking Light/Heat-Harvesting 0.18- μ m CMOS Switched-Inductor Charger. *Blanco, A.A., +, TCSI June 2018 2024-2034*
- Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargaran, E., +, TCSI March 2018 891-903*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W., +, TCSI Sept. 2018 2856-2868*
- Digitally Assisted On-Chip Body Bias Tuning Scheme for Ultra Low-Power VLSI Systems. *Okuhara, H., +, TCSI Oct. 2018 3241-3254*
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M., +, TCSI June 2018 2048-2057*
- High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X., +, TCSI March 2018 1143-1153*
- Low-Power Single-Ended SAR ADC Using Symmetrical DAC Switching for Image Sensors With Passive CDS and PGA Technique. *Wang, J., +, TCSI Aug. 2018 2378-2388*
- Parallel Balanced-Bit-Serial Design Technique for Ultra-Low-Voltage Circuits With Energy Saving and Area Efficiency Enhancement. *Wu, B., +, TCSI Jan. 2018 141-153*
- Pentavariate V_{\min} Analysis of a Subthreshold 10T SRAM Bit Cell With Variation Tolerant Write and Divided Bit-Line Read. *Gupta, S., +, TCSI Oct. 2018 3326-3337*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S., +, TCSI Dec. 2018 4110-4120*
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R., +, TCSI April 2018 1293-1302*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W., +, TCSI Jan. 2018 406-418*
- TEL Logic Style as a Countermeasure Against Side-Channel Attacks: Secure Cells Library in 65nm CMOS and Experimental Results. *Bellizia, D., +, TCSI Nov. 2018 3874-3884*

VFAB: A Novel 2-Stage STTRAM Sensing Using Voltage Feedback and Boosting. *Motaman, S., +, TCSI June 2018 1919-1928*
 Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z., +, TCSI Jan. 2018 26-38*
 X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design. *Liu, R., +, TCSI Oct. 2018 3459-3468*

Lumped parameter networks

Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. *Sloan, J.T., +, TCSI Jan. 2018 3-13*

Lung

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y., +, TCSI Nov. 2018 3810-3820*

Lyapunov methods

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M., +, TCSI Sept. 2018 3005-3013*

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W., +, TCSI June 2018 1994-2004*

New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y., +, TCSI Sept. 2018 2961-2969*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Reliable Control of Fuzzy Singularly Perturbed Systems and Its Application to Electronic Circuits. *Wang, Y., +, TCSI Oct. 2018 3519-3528*

M

Machine control

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J., +, TCSI Feb. 2018 832-841*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y., +, TCSI July 2018 2256-2268*

Magnetic devices

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A., +, TCSI Dec. 2018 4157-4168*

Magnetic heads

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A., +, TCSI Feb. 2018 556-566*

Magnetic recording

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A., +, TCSI Feb. 2018 556-566*

Magnetic tunneling

A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R., +, TCSI March 2018 1086-1095*

Magnetolectronics

A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R., +, TCSI March 2018 1086-1095*

Markov processes

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Reliable Control of Fuzzy Singularly Perturbed Systems and Its Application to Electronic Circuits. *Wang, Y., +, TCSI Oct. 2018 3519-3528*

Mathematical analysis

Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D., +, TCSI Feb. 2018 421-433*

Mathematics computing

A Scalable Low-Power Reconfigurable Accelerator for Action-Dependent Heuristic Dynamic Programming. *Zheng, N., +, TCSI June 2018 1897-1908*

Matrix algebra

A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M., +, TCSI Oct. 2018 3349-3361*

Adaptive Matrix Design for Boosting Compressed Sensing. *Mangia, M., +, TCSI March 2018 1016-1027*

Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S., +, TCSI Aug. 2018 2477-2490*

Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F., +, TCSI Oct. 2018 3555-3567*

Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S., +, TCSI Sept. 2018 2842-2855*

Low-Cost Lifting Architecture and Lossless Implementation of Daubechies-8 Wavelets. *Hasan, M.M., +, TCSI Aug. 2018 2515-2523*

Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J., +, TCSI Dec. 2018 4233-4246*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y., +, TCSI July 2018 2256-2268*

Matrix decomposition

A Low-Latency and Area-Efficient Gram-Schmidt-Based QR Decomposition for MIMO Receiver. *Shin, D., +, TCSI Aug. 2018 2606-2616*

Matrix inversion

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G., +, TCSI May 2018 1717-1730*

Matrix multiplication

Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomial and Trinomial Over $GF(2^m)$. *Shao, Q., +, TCSI Aug. 2018 2455-2465*

Maximum likelihood detection

A Maximum-Likelihood Sequence Detection Powered ADC-Based Serial Link. *Song, S., +, TCSI July 2018 2269-2278*

Maximum likelihood estimation

VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O., +, TCSI March 2018 1120-1132*

Maximum power point trackers

A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting. *Mu, J., +, TCSI Aug. 2018 2631-2640*

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z., +, TCSI May 2018 1744-1757*

A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X., +, TCSI Feb. 2018 793-803*

Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays. *Bernardini, A., +, TCSI April 2018 1363-1376*

Mean square error methods

A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B., +, TCSI July 2018 2169-2182*

Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A., +, TCSI Jan. 2018 353-365*

Design and Implementation of Low Complexity 2-D Variable Digital FIR Filters Using Single-Parameter-Tunable 2-D Farrow Structure. *Bindima, T., +, TCSI Feb. 2018 618-627*

Measurement errors

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Median filters

Modular Design of High-Efficiency Hardware Median Filter Architecture. *Lin, S., +, TCSI June 2018 1929-1940*

Medical control systems

A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H., +, TCSI Aug. 2018 2431-2442*

Medical signal detection

A 18.5 nW 12-bit 1-kS/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μ m CMOS. *Seo, M., +, TCSI Nov. 2018 3617-3627*

Medical signal processing

A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J., +, TCSI Nov. 2018 3800-3809*

A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S., +, TCSI Sept. 2018 2774-2783*

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P., +, TCSI Feb. 2018 663-676*

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*

Meetings

Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*

Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*

Memory architecture

Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y.*, +, *TCSI Jan. 2018 307-318*

IMAGING: In-Memory Algorithms for Image processing. *Haj-Ali, A.*, +, *TCSI Dec. 2018 4258-4271*

Memristor circuits

Memristor Circuits: Pulse Programming via Invariant Manifolds. *Corinto, F.*, +, *TCSI April 2018 1327-1339*

Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*

Memristors

A Novel Memristor-Based Circuit Implementation of Full-Function Pavlov Associative Memory Accorded With Biological Feature. *Wang, Z.*, +, *TCSI July 2018 2210-2220*

A Simple Piecewise Model of Reset/Set Transitions in Bipolar ReRAM Memristive Devices. *Al Chawa, M.M.*, +, *TCSI Oct. 2018 3469-3480*

Analog Circuit Implementation of Fractional-Order Memristor: Arbitrary-Order Lattice Scaling Fracmemristor. *Pu, Y.*, +, *TCSI Sept. 2018 2903-2916*

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F.*, +, *TCSI March 2018 1040-1050*

Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. *Thangkhiew, P.L.*, +, *TCSI Aug. 2018 2466-2476*

IMAGING: In-Memory Algorithms for Image processing. *Haj-Ali, A.*, +, *TCSI Dec. 2018 4258-4271*

Modeling and Analysis of Passive Switching Crossbar Arrays. *Fouda, M.E.*, +, *TCSI Jan. 2018 270-282*

TIME—Tunable Inductors Using Memristors. *Wainstein, N.*, +, *TCSI May 2018 1505-1515*

Message passing

Hardware Implementation of an Event-Based Message Passing Graphical Model Network. *Chien, C.*, +, *TCSI Sept. 2018 2739-2752*

Metal-semiconductor-metal structures

Online Built-In Self-Test of High Switching Frequency DC–DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Microcontrollers

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*

Microelectrodes

A 16 x 16 CMOS Amperometric Microelectrode Array for Simultaneous Electrochemical Measurements. *Giagkoulovits, C.*, +, *TCSI Sept. 2018 2821-2831*

Microfabrication

A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. *Farian, L.*, +, *TCSI May 2018 1543-1554*

Monolithic Airflow Detection Chip With Automatic DC Offset Calibration. *Tsai, M.*, +, *TCSI Jan. 2018 107-117*

Micromagnetics

A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*

Micromechanical devices

A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*

Micromechanical resonators

A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*

Microprocessor chips

A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*

A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K.*, +, *TCSI July 2018 2109-2117*

An Area Efficient 1024-Point Low Power Radix-2² FFT Processor With Feed-Forward Multiple Delay Commutators. *Le Ba, N.*, +, *TCSI Oct. 2018 3291-3299*

Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y.*, +, *TCSI Jan. 2018 307-318*

Exposure-Programmable CMOS Pixel With Selective Charge Storage and Code Memory for Computational Imaging. *Luo, Y.*, +, *TCSI May 2018 1555-1566*

Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S.*, +, *TCSI Aug. 2018 2477-2490*

Microsensors

A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*

A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. *Farian, L.*, +, *TCSI May 2018 1543-1554*

A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S.*, +, *TCSI March 2018 870-880*

A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J.*, +, *TCSI Sept. 2018 2810-2820*

Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*

Monolithic Airflow Detection Chip With Automatic DC Offset Calibration. *Tsai, M.*, +, *TCSI Jan. 2018 107-117*

Microstrip filters

Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickie, M.D.*, +, *TCSI June 2018 1862-1874*

Microwave amplifiers

W-Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S.*, +, *TCSI July 2018 2070-2082*

A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*

A K -/ $K\alpha$ -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J.*, +, *TCSI Sept. 2018 2679-2690*

Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C.*, +, *TCSI March 2018 859-869*

Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargarani, E.*, +, *TCSI March 2018 891-903*

Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*

Microwave circuits

Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J.*, +, *TCSI April 2018 1234-1244*

Microwave filters

40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*

Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L.*, +, *TCSI June 2018 1875-1886*

Microwave integrated circuits

40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*

A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*

Microwave mixers

40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*

A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*

Microwave oscillators

A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection. *Cho, S.*, +, *TCSI Sept. 2018 2691-2702*

A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*

A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. *Abbasalizadeh, S.*, +, *TCSI Sept. 2018 2917-2928*

Phase Transition Analysis of Dual-Mode Standing-Rotary Traveling-Wave Oscillator. *Abbasalizadeh, S.*, +, *TCSI Aug. 2018 2534-2546*

Microwave power amplifiers

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P.*, +, *TCSI Nov. 2018 3780-3789*

Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D.*, +, *TCSI Sept. 2018 2715-2725*

Microwave receivers

40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*

Microwave resonators

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*

Microwave switches

A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*

Microwave transistors

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*

Millimeter wave amplifiers

A K -/ Ka -Band Concurrent Dual-Band Single-Ended Input to Differential Output Low-Noise Amplifier Employing a Novel Transformer Feedback Dual-Band Load. *Lee, J.*, +, *TCSI Sept. 2018 2679-2690*

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A.*, +, *TCSI Dec. 2018 4157-4168*

Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

Millimeter wave communication

A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*

Millimeter wave couplers

A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J.*, +, *TCSI July 2018 2139-2150*

Millimeter wave filters

Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H.*, +, *TCSI Dec. 2018 4062-4071*

Millimeter wave mixers

A 76–84 GHz CMOS $4\times$ Subharmonic Mixer With Internal Phase Correction. *Plessas, F.*, +, *TCSI July 2018 2083-2096*

Millimeter wave phase shifters

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

A Millimeter-Wave Fully Integrated Passive Reflection-Type Phase Shifter With Transformer-Based Multi-Resonance Loads for 360 Phase Shifting. *Li, T.*, +, *TCSI April 2018 1406-1419*

A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J.*, +, *TCSI July 2018 2139-2150*

Millimeter wave radar

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*

Millimeter wave resonators

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*

MIMO communication

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128×8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*

A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*

A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*

Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*

Minimax techniques

Design of Least-Squares and Minimax Composite Filters. *Lu, W.*, +, *TCSI March 2018 982-991*

Min-Max Design of Error Feedback Quantizers Without Overloading. *Ohno, S.*, +, *TCSI April 2018 1395-1405*

Minimization

A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters. *Toledo de la Garza, K.*, +, *TCSI April 2018 1303-1313*

MIS devices

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A.*, +, *TCSI Feb. 2018 556-566*

MISO communication

Modeling and Identification of Ultra-Wideband Analog Multipliers. *Pedross-Engel, A.*, +, *TCSI Jan. 2018 283-292*

Mixed analog digital integrated circuits

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*

An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A.*, +, *TCSI Dec. 2018 4299-4312*

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P.*, +, *TCSI March 2018 925-934*

Mixers (circuits)

A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking. *Bazrafshan, A.*, +, *TCSI Oct. 2018 3186-3195*

Analysis and Design of Nonlinear Circuits With a Self-Consistent Carleman Linearization. *Weber, H.*, +, *TCSI Dec. 2018 4272-4284*

Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*

Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network. *Pavan, S.*, +, *TCSI Oct. 2018 3267-3278*

Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S.*, +, *TCSI Sept. 2018 2842-2855*

The Impact of LO Phase Noise in N -Path Filters. *Tapen, T.*, +, *TCSI May 2018 1481-1494*

MMIC amplifiers

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*

Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

MMIC mixers

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*

MMIC oscillators

A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*

Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*

MMIC power amplifiers

Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*

Mobile radio

Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

System Analysis of Six-Port-Based RF-Receivers. *Mailand, M.*, *TCSI Jan. 2018 319-330*

Mobile robots

A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P.*, +, *TCSI March 2018 925-934*

Model reference adaptive control systems

Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Modulators

- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018 758-768*
- A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*
- Continuous-Time Delta-Sigma Modulators With Time-Interleaved FIR Feedback. *Jain, A.*, +, *TCSI Feb. 2018 434-443*

Monolayers

- Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*

Monte Carlo methods

- Data-Cell-Variation-Tolerant Dual-Mode Sensing Scheme for Deep Sub-micrometer STT-RAM. *Na, T.*, +, *TCSI Jan. 2018 163-174*
- Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs. *Trinh, Q.*, +, *TCSI April 2018 1269-1278*
- Gain-Cell Embedded DRAM-Based Physical Unclonable Function. *Giterman, R.*, +, *TCSI Dec. 2018 4208-4218*
- Time-Based Sensing for Reference-Less and Robust Read in STT-MRAM Memories. *Trinh, Q.*, +, *TCSI Oct. 2018 3338-3348*
- VFAB: A Novel 2-Stage STTRAM Sensing Using Voltage Feedback and Boosting. *Motaman, S.*, +, *TCSI June 2018 1919-1928*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*

MOS capacitors

- A CMOS Follower-Type Voltage Regulator With a Distributed-Element Fractional-Order Control. *Kadlcik, L.*, +, *TCSI Sept. 2018 2753-2763*

MOSFET

- A 8 mV/+15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A.*, +, *TCSI April 2018 1454-1467*
- BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y.*, +, *TCSI April 2018 1210-1223*
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

MOSFET circuits

- A 0.12–0.4 V, Versatile 3-Transistor CMOS Voltage Reference for Ultra-Low Power Systems. *de Oliveira, A.C.*, +, *TCSI Nov. 2018 3790-3799*
- A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*
- A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K.*, +, *TCSI July 2018 2109-2117*
- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*

MRAM devices

- A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory. *Mordakhay, A.*, +, *TCSI April 2018 1224-1233*
- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*
- Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs. *Trinh, Q.*, +, *TCSI April 2018 1269-1278*
- Time-Based Sensing for Reference-Less and Robust Read in STT-MRAM Memories. *Trinh, Q.*, +, *TCSI Oct. 2018 3338-3348*

Multi-access systems

- A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*
- A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K.*, +, *TCSI Feb. 2018 769-782*

Multi-agent systems

- Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*
- Event-Based Consensus for a Class of Nonlinear Multi-Agent Systems With Sequentially Connected Topology. *Cui, Y.*, +, *TCSI Oct. 2018 3506-3518*
- Event-Triggered Control for Consensus Problem in Multi-Agent Systems With Quantized Relative State Measurements and External Disturbance. *Wu, Z.*, +, *TCSI July 2018 2232-2242*
- Event-Triggered Protocol for the Consensus of Multi-Agent Systems With State-Dependent Nonlinear Coupling. *Jia, Q.*, +, *TCSI Feb. 2018 723-732*
- Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J.*, +, *TCSI Dec. 2018 4363-4375*

- Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks. *Wang, H.*, +, *TCSI Dec. 2018 4336-4348*
- Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K.*, +, *TCSI May 2018 1696-1706*

Multi-robot systems

- Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S.*, +, *TCSI April 2018 1377-1385*

Multi-threading

- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*

Multilayers

- Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y.*, +, *TCSI Feb. 2018 677-686*

Multiplexing

- Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C.*, +, *TCSI Dec. 2018 4313-4325*

Multiplexing equipment

- A 36-Gb/s 1.3-mW/Gb/s Duobinary-Signal Transmitter Exploiting Power-Efficient Cross-Quadrature Clocking Multiplexers With Maximized Timing Margin. *Chen, Y.*, +, *TCSI Sept. 2018 3014-3026*

Multiplying circuits

- A Computationally Efficient Reconfigurable Constant Multiplication Architecture Based on CSD Decoded Vertical-Horizontal Common Sub-Expression Elimination Algorithm. *Hatai, I.*, +, *TCSI Jan. 2018 130-140*
- A Low-Latency and Low-Complexity Point-Multiplication in ECC. *Salarifard, R.*, +, *TCSI Sept. 2018 2869-2877*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- Approximate Multipliers Based on New Approximate Compressors. *Esposito, D.*, +, *TCSI Dec. 2018 4169-4182*
- Design and Evaluation of Approximate Logarithmic Multipliers for Low Power Error-Tolerant Applications. *Liu, W.*, +, *TCSI Sept. 2018 2856-2868*
- Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomials and Trinomials Over $GF(2^m)$. *Shao, Q.*, +, *TCSI Aug. 2018 2455-2465*

Multiprocessing systems

- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y.*, +, *TCSI Jan. 2018 307-318*
- Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A.*, +, *TCSI May 2018 1614-1627*

Multiusers detection

- A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K.*, +, *TCSI Feb. 2018 769-782*

Multivalued logic circuits

- Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C.*, +, *TCSI Dec. 2018 4313-4325*

N**NAND circuits**

- A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*
- Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A.*, +, *TCSI Jan. 2018 353-365*

Nanoelectronics

- A Near-Threshold Voltage Oriented Digital Cell Library for High-Energy Efficiency and Optimized Performance in 65nm CMOS Process. *Jun, J.*, +, *TCSI May 2018 1567-1580*
- An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S.*, +, *TCSI April 2018 1174-1184*

Nanotechnology

- VFAB: A Novel 2-Stage STTRAM Sensing Using Voltage Feedback and Boosting. *Motaman, S.*, +, *TCSI June 2018 1919-1928*

Near-field communication

- Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

Negative bias temperature instability

Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV. *van Santen, V.M., +, TCSI Jan. 2018 293-306*

Network analysis

Generalized Analytical Equations for Injected Ring Oscillator With RC-Load. *Hazeri, A.R., +, TCSI Jan. 2018 223-234*

Network routing

Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits. *Yan, C., +, TCSI March 2018 1075-1085*

Network synthesis

A 12-b 40-MS/s Calibration-Free SAR ADC. *Hsu, C., +, TCSI March 2018 881-890*

Amplifier Design for Specified Frequency Response Profiles Using Nullors—Hearing Aids, a Case Study. *Hashemian, R., TCSI Dec. 2018 4147-4156*

An ATPG Method for Double Stuck-At Faults by Analyzing Propagation Paths of Single Faults. *Wang, P., +, TCSI March 2018 1063-1074*

One-Dimensional Nonlinear Model for Producing Chaos. *Hua, Z., +, TCSI Jan. 2018 235-246*

Network theory (graphs)

Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks. *Wang, H., +, TCSI Dec. 2018 4336-4348*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Toward Stronger Robustness of Network Controllability: A Snapshot Network Model. *Lou, Y., +, TCSI Sept. 2018 2983-2991*

Network topology

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z., +, TCSI April 2018 1314-1326*

Event-Based Consensus for a Class of Nonlinear Multi-Agent Systems With Sequentially Connected Topology. *Cui, Y., +, TCSI Oct. 2018 3506-3518*

Network-on-chip

An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture. *Prasad, N., +, TCSI Oct. 2018 3543-3554*

Networked control systems

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y., +, TCSI April 2018 1386-1394*

Event-Triggered Control for Consensus Problem in Multi-Agent Systems With Quantized Relative State Measurements and External Disturbance. *Wu, Z., +, TCSI July 2018 2232-2242*

Neural chips

An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A., +, TCSI Dec. 2018 4299-4312*

An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S., +, TCSI April 2018 1174-1184*

Data and Hardware Efficient Design for Convolutional Neural Network. *Lin, Y., +, TCSI May 2018 1642-1651*

Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V., +, TCSI March 2018 1051-1062*

Neural network architecture

An Accelerated LIF Neuronal Network Array for a Large-Scale Mixed-Signal Neuromorphic Architecture. *Aamir, S.A., +, TCSI Dec. 2018 4299-4312*

Neural networks

A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization. *Zhang, X., +, TCSI Oct. 2018 3312-3325*

An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S., +, TCSI April 2018 1174-1184*

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z., +, TCSI April 2018 1314-1326*

Design and Hardware Implementation of Neuromorphic Systems With RRAM Synapses and Threshold-Controlled Neurons for Pattern Recognition. *Jiang, Y., +, TCSI Sept. 2018 2726-2738*

Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits. *Lodi, M., +, TCSI March 2018 1028-1039*

Homeostatic Fault Tolerance in Spiking Neural Networks: A Dynamic Hardware Perspective. *Johnson, A.P., +, TCSI Feb. 2018 687-699*

Memristor-Based Circuit Design for Multilayer Neural Networks. *Zhang, Y., +, TCSI Feb. 2018 677-686*

Neurocontrollers

Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits. *Lodi, M., +, TCSI March 2018 1028-1039*

Neurophysiology

A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H., +, TCSI Aug. 2018 2431-2442*

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C., +, TCSI Nov. 2018 3929-3941*

An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S., +, TCSI April 2018 1174-1184*

Next generation networks

A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K., +, TCSI Feb. 2018 769-782*

Noise measurement

Data-Driven Filtering for Nonlinear Systems With Bounded Noises and Quantized Measurements. *Xia, Y., +, TCSI Oct. 2018 3404-3413*

Nonlinear control systems

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X., +, TCSI July 2018 2243-2255*

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Finite-Time Bipartite Consensus for Multi-Agent Systems on Directed Signed Networks. *Wang, H., +, TCSI Dec. 2018 4336-4348*

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W., +, TCSI June 2018 1994-2004*

New Approach to Fixed-Order Output-Feedback Control for Piecewise-Affine Systems. *Wei, Y., +, TCSI Sept. 2018 2961-2969*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J., +, TCSI Feb. 2018 832-841*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y., +, TCSI July 2018 2256-2268*

Nonlinear distortion

A Cartesian Error Feedback Architecture. *Li, J., +, TCSI March 2018 1133-1142*

Distortion Contribution Analysis With the Best Linear Approximation. *Cooman, A., +, TCSI Dec. 2018 4133-4146*

Nonlinear dynamical systems

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F., +, TCSI March 2018 1040-1050*

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Nonlinear systems

Data-Driven Filtering for Nonlinear Systems With Bounded Noises and Quantized Measurements. *Xia, Y., +, TCSI Oct. 2018 3404-3413*

Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input. *Faifer, M., +, TCSI May 2018 1652-1663*

Event-Based Consensus for a Class of Nonlinear Multi-Agent Systems With Sequentially Connected Topology. *Cui, Y., +, TCSI Oct. 2018 3506-3518*

Nonparametric statistics

Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N., +, TCSI Feb. 2018 818-831*

Notch filters

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*

Number theory

Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V., +, TCSI March 2018 1051-1062*

Numerical analysis

A Combined Analytical-Numerical Methodology for Predicting Subharmonic Oscillation in H-Bridge Inverters Under Double Edge Modulation. *Aroudi, A.E., +, TCSI July 2018 2341-2351*

Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops. *Bizzarri, F., +, TCSI June 2018 1840-1849*

Design of Synthetic Central Pattern Generators Producing Desired Quadruped Gaits. *Lodi, M., +, TCSI March 2018 1028-1039*

O**Object detection**

A Reconfigurable Streaming Deep Convolutional Neural Network Accelerator for Internet of Things. *Du, L., +, TCSI Jan. 2018 198-208*

Object tracking

A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*

Observers

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y.*, +, *TCSI Oct. 2018 3492-3505*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y.*, +, *TCSI July 2018 2256-2268*

OFDM modulation

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*

A Novel Transmitter Architecture for Spectrally-Precoded OFDM. *Mohamad, M.*, +, *TCSI Aug. 2018 2592-2605*

All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs. *Gebreyohannes, F.T.*, +, *TCSI Nov. 2018 3956-3969*

Open loop systems

Online Built-In Self-Test of High Switching Frequency DC–DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Operating system kernels

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Operational amplifiers

A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M.*, +, *TCSI Nov. 2018 3675-3687*

A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*

A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*

A Power-Efficient Reconfigurable OTA-C Filter for Low-Frequency Biomedical Applications. *Peng, S.*, +, *TCSI Feb. 2018 543-555*

A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*

A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A.*, +, *TCSI Feb. 2018 556-566*

Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation. *Shi, G.*, +, *TCSI Sept. 2018 2939-2950*

Operational Transconductance Amplifier With Class-B Slew-Rate Boosting for Fast High-Performance Switched-Capacitor Circuits. *Naderi, M.H.*, +, *TCSI Nov. 2018 3769-3779*

Optimal Design for Realizing a Grounded Fractional Order Inductor Using GIC. *Adhikary, A.*, +, *TCSI Aug. 2018 2411-2421*

Optical communication

A 9.52 dB NCG FEC Scheme and 162 b/Cycle Low-Complexity Product Decoder Architecture. *Condo, C.*, +, *TCSI April 2018 1420-1431*

Optical receivers

A 53 dB Ω 7-GHz Inductorless Transimpedance Amplifier and a 1-THz+ GBP Limiting Amplifier in 0.13- μ m CMOS. *Ray, S.*, +, *TCSI Aug. 2018 2365-2377*

Optical sensors

A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*

Optimization

A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P.*, +, *TCSI Oct. 2018 3362-3375*

Adaptive Matrix Design for Boosting Compressed Sensing. *Mangia, M.*, +, *TCSI March 2018 1016-1027*

Digital Complex Delta–Sigma Modulators With Highly Configurable Notches for Multi-Standard Coexistence in Wireless Transmitters. *Marin, R.*, +, *TCSI Jan. 2018 343-352*

Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y.*, +, *TCSI Oct. 2018 3492-3505*

Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D.*, +, *TCSI Aug. 2018 2571-2580*

Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J.*, +, *TCSI Sept. 2018 2970-2982*

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A.*, +, *TCSI Dec. 2018 4157-4168*

Optoelectronic devices

A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*

Organic compounds

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Organic light emitting diodes

Area-Efficient Time-Shared Digital-to-Analog Converter With Dual Sampling for AMOLED Column Driver IC's. *An, T.*, +, *TCSI Oct. 2018 3227-3240*

Oscillations

A Combined Analytical-Numerical Methodology for Predicting Subharmonic Oscillation in H-Bridge Inverters Under Double Edge Modulation. *Aroudi, A.E.*, +, *TCSI July 2018 2341-2351*

Oscillators

A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*

A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*

A Ring Oscillator-Based Identification Mechanism Immune to Aging and External Working Conditions. *Barbareschi, M.*, +, *TCSI Feb. 2018 700-711*

A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*

A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*

Amplifier Innovations for Improvement of Rotary Traveling Wave Oscillators. *Martchovsky, A.*, +, *TCSI Feb. 2018 522-530*

An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F.*, +, *TCSI March 2018 1040-1050*

Event-Triggered Protocol for the Consensus of Multi-Agent Systems With State-Dependent Nonlinear Coupling. *Jia, Q.*, +, *TCSI Feb. 2018 723-732*

Generalized Analytical Equations for Injected Ring Oscillator With RC-Load. *Hazeri, A.R.*, +, *TCSI Jan. 2018 223-234*

Multi-Rate DEM With Mismatch-Noise Cancellation for DCOs in Digital PLLs. *Alvarez-Fontecilla, E.*, +, *TCSI Oct. 2018 3125-3137*

Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*

Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P.*, +, *TCSI Jan. 2018 74-83*

P

P-i-n diodes

Power-Handling Capacity and Nonlinearity Analysis for Distributed Electronic Impedance Synthesizer. *Zhao, Y.*, +, *TCSI April 2018 1340-1348*

Parallel algorithms

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J.*, +, *TCSI June 2018 1941-1953*

Parallel architectures

A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P.*, +, *TCSI Oct. 2018 3362-3375*

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J.*, +, *TCSI June 2018 1941-1953*

Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*

Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A.*, +, *TCSI Nov. 2018 3897-3906*

Parallel processing

A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization. *Zhang, X.*, +, *TCSI Oct. 2018 3312-3325*

Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*

IMAGING: In-Memory Algorithms for Image processing. *Haj-Ali, A.*, +, *TCSI Dec. 2018 4258-4271*

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P.*, +, *TCSI March 2018 925-934*

Parity check codes

A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M.*, +, *TCSI Oct. 2018 3349-3361*

Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S.*, *TCSI Dec. 2018 4404-4412*

Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A.*, +, *TCSI Jan. 2018 353-365*

Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*

Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Passive filters

A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*

Analysis of the Effect of Source Capacitance and Inductance on N -Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*

Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*

The Impact of LO Phase Noise in N -Path Filters. *Tapen, T.*, +, *TCSI May 2018 1481-1494*

Passive networks

W -Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S.*, +, *TCSI July 2018 2070-2082*

Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J.*, +, *TCSI Dec. 2018 4233-4246*

Path planning

A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*

Patient diagnosis

A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*

Patient monitoring

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Pattern classification

Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A.*, +, *TCSI Nov. 2018 3897-3906*

Pattern recognition

Design and Hardware Implementation of Neuromorphic Systems With RRAM Synapses and Threshold-Controlled Neurons for Pattern Recognition. *Jiang, Y.*, +, *TCSI Sept. 2018 2726-2738*

Performance index

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Personal area networks

400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z.*, +, *TCSI Feb. 2018 745-757*

Phase detectors

1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*

A 2.5–5.6 GHz Subharmonically Injection-Locked All-Digital PLL With Dual-Edge Complementary Switched Injection. *Cho, S.*, +, *TCSI Sept. 2018 2691-2702*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

PLL-Based Wideband Frequency Modulator: Two-Point Injection Versus Pre-Emphasis Technique. *Cherniak, D.*, +, *TCSI March 2018 914-924*

Phase locked loops

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*

A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*

A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K.*, +, *TCSI July 2018 2109-2117*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y.*, +, *TCSI July 2018 2161-2168*

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*

Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops. *Bizzarri, F.*, +, *TCSI June 2018 1840-1849*

Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M.*, +, *TCSI June 2018 1968-1980*

One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*

Phase modulation

A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T.*, +, *TCSI Dec. 2018 4390-4403*

Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J.*, +, *TCSI Sept. 2018 3085-3098*

Phase noise

A 1.4-mW 14-MHz MEMS Oscillator Based on a Differential Adjustable-Bandwidth Transimpedance Amplifier and Piezoelectric Disk Resonator. *Bouchami, A.*, +, *TCSI Oct. 2018 3414-3423*

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z.*, +, *TCSI July 2018 2118-2126*

A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*

A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*

A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

A Study on the Design Parameters for MEMS Oscillators Incorporating Nonlinearities. *Li, M.*, +, *TCSI Oct. 2018 3424-3434*

Amplifier Innovations for Improvement of Rotary Traveling Wave Oscillators. *Marchovsky, A.*, +, *TCSI Feb. 2018 522-530*

An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F.*, +, *TCSI Nov. 2018 3756-3768*

An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y.*, +, *TCSI July 2018 2161-2168*

- Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018* 783-792
- Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M.*, +, *TCSI June 2018* 1968-1980
- Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018* 2127-2138
- On the Remarkable Performance of the Series-Resonance CMOS Oscillator. *Pepe, F.*, +, *TCSI Feb. 2018* 531-542
- The Impact of LO Phase Noise in N-Path Filters. *Tapen, T.*, +, *TCSI May 2018* 1481-1494
- Photoacoustic effect**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018* 663-676
- Photoacoustic spectroscopy**
- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018* 663-676
- Photodetectors**
- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018* 498-509
- Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes. *Beer, M.*, +, *TCSI March 2018* 970-981
- Photomultipliers**
- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018* 3830-3841
- Photon counting**
- Expected Value and Variance of the Indirect Time-of-Flight Measurement With Dead Time Afflicted Single-Photon Avalanche Diodes. *Beer, M.*, +, *TCSI March 2018* 970-981
- Photovoltaic cells**
- Compact Fast-Waking Light/Heat-Harvesting 0.18- μm CMOS Switched-Inductor Charger. *Blanco, A.A.*, +, *TCSI June 2018* 2024-2034
- Photovoltaic power systems**
- Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays. *Bernardini, A.*, +, *TCSI April 2018* 1363-1376
- PI control**
- Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018* 832-841
- Piecewise linear techniques**
- Range Mapping—A Fresh Approach to High Accuracy Mitchell-Based Logarithmic Conversion Circuit Design. *Low, J.Y.L.*, +, *TCSI Jan. 2018* 175-184
- Piezoelectric actuators**
- An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y.*, +, *TCSI July 2018* 2161-2168
- Piezoelectric transducers**
- An Efficient Self-Powered Piezoelectric Energy Harvesting CMOS Interface Circuit Based on Synchronous Charge Extraction Technique. *Shi, G.*, +, *TCSI Feb. 2018* 804-817
- Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M.*, +, *TCSI Jan. 2018* 366-379
- Pipeline arithmetic**
- Feedforward FFT Hardware Architectures Based on Rotator Allocation. *Garrido, M.*, +, *TCSI Feb. 2018* 581-592
- Pipeline processing**
- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 \times 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018* 1717-1730
- A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018* 1909-1918
- Efficient Progressive Radiance Estimation Engine Architecture and Implementation for Progressive Photon Mapping. *Chiu, C.*, +, *TCSI Aug. 2018* 2491-2502
- Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves. *Li, L.*, +, *TCSI Jan. 2018* 154-162
- Pipelines**
- A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization. *Zhang, X.*, +, *TCSI Oct. 2018* 3312-3325
- Pneumodynamics**
- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018* 3810-3820
- Poles and zeros**
- Digital Complex Delta-Sigma Modulators With Highly Configurable Notches for Multi-Standard Coexistence in Wireless Transmitters. *Marin, R.*, +, *TCSI Jan. 2018* 343-352
- Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation. *Shi, G.*, *TCSI Sept. 2018* 2939-2950
- Polynomials**
- Analysis and Design of Nonlinear Circuits With a Self-Consistent Carleman Linearization. *Weber, H.*, +, *TCSI Dec. 2018* 4272-4284
- Factoring Integers With a Brain-Inspired Computer. *Monaco, J.V.*, +, *TCSI March 2018* 1051-1062
- Power amplifiers**
- A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S.*, +, *TCSI Sept. 2018* 3037-3048
- A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018* 2889-2902
- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018* 758-768
- Globally Optimal Matching Networks With Lossy Passives and Efficiency Bounds. *Chappidi, C.R.*, +, *TCSI Jan. 2018* 257-269
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018* 2005-2014
- Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D.*, +, *TCSI Sept. 2018* 2715-2725
- Power aware computing**
- A Low Power Self-healing Resilient Microarchitecture for PVT Variability Mitigation. *Agwa, S.*, +, *TCSI June 2018* 1909-1918
- A Scalable Low-Power Reconfigurable Accelerator for Action-Dependent Heuristic Dynamic Programming. *Zheng, N.*, +, *TCSI June 2018* 1897-1908
- An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture. *Prasad, N.*, +, *TCSI Oct. 2018* 3543-3554
- Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y.*, +, *TCSI Jan. 2018* 307-318
- Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S.*, +, *TCSI Dec. 2018* 4285-4298
- Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A.*, +, *TCSI May 2018* 1614-1627
- Power capacitors**
- Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018* 2035-2047
- Power combiners**
- W-Band (92–100 GHz) Phased-Array Receive Channel With Quadrature-Hybrid-Based Vector Modulator. *Afroz, S.*, +, *TCSI July 2018* 2070-2082
- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018* 1850-1861
- Globally Optimal Matching Networks With Lossy Passives and Efficiency Bounds. *Chappidi, C.R.*, +, *TCSI Jan. 2018* 257-269
- Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D.*, +, *TCSI Sept. 2018* 2715-2725
- Power consumption**
- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018* 567-580
- A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X.*, +, *TCSI Feb. 2018* 793-803
- An 11-Bit 250-nW 10-kS/s SAR ADC With Doubled Input Range for Biomedical Applications. *Sadollahi, M.*, +, *TCSI Jan. 2018* 61-73
- Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A.*, +, *TCSI May 2018* 1614-1627
- Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018* 1293-1302
- Power control**
- A Fully Integrated Galvanically Isolated DC-DC Converter With Data Communication. *Ragonese, E.*, +, *TCSI April 2018* 1432-1441
- Power conversion harmonics**
- A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K.*, +, *TCSI Jan. 2018* 394-405

Power converters

- A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting. *Mu, J.*, +, *TCSI Aug. 2018 2631-2640*
- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*
- A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X.*, +, *TCSI Feb. 2018 793-803*

Power demand

- A Fast and Power-Efficient Hardware Architecture for Visual Feature Detection in Affine-SIFT. *Ouyang, P.*, +, *TCSI Oct. 2018 3362-3375*

Power dividers

- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*
- Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L.*, +, *TCSI June 2018 1875-1886*

Power grids

- Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input. *Faifer, M.*, +, *TCSI May 2018 1652-1663*

Power inductors

- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*

Power integrated circuits

- A Dual-Output Switched Capacitor DC–DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*

Power measurement

- An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*

Power supply circuits

- A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*

Power system control

- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*
- Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input. *Faifer, M.*, +, *TCSI May 2018 1652-1663*

Precoding

- A Novel Transmitter Architecture for Spectrally-Precoded OFDM. *Mohamad, M.*, +, *TCSI Aug. 2018 2592-2605*

Predictive control

- Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Principal component analysis

- Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A.*, +, *TCSI March 2018 1003-1015*

Printed circuits

- Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

Probability

- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*
- Decision-Directed Retention-Failure Recovery With Channel Update for MLC NAND Flash Memory. *Aslam, C.A.*, +, *TCSI Jan. 2018 353-365*
- Hardware Implementation and Performance Analysis of Resource Efficient Probabilistic Hard Decision LDPC Decoders. *Unal, B.*, +, *TCSI Sept. 2018 3074-3084*
- Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC. *Wang, G.*, +, *TCSI Nov. 2018 3707-3719*
- Pentavariate V_{\min} Analysis of a Subthreshold 10T SRAM Bit Cell With Variation Tolerant Write and Divided Bit-Line Read. *Gupta, S.*, +, *TCSI Oct. 2018 3326-3337*
- Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Prosthetics

- A Scalable Optoelectronic Neural Probe Architecture With Self-Diagnostic Capability. *Zhao, H.*, +, *TCSI Aug. 2018 2431-2442*
- Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network. *Lotfi Navaii, M.*, +, *TCSI Oct. 2018 3255-3266*

Proteins

- Finite-Time H_{∞} State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols. *Wan, X.*, +, *TCSI Oct. 2018 3481-3491*

Protocols

- Event-Based Consensus for a Class of Nonlinear Multi-Agent Systems With Sequentially Connected Topology. *Cui, Y.*, +, *TCSI Oct. 2018 3506-3518*
- Event-Triggered Protocol for the Consensus of Multi-Agent Systems With State-Dependent Nonlinear Coupling. *Jia, Q.*, +, *TCSI Feb. 2018 723-732*
- Finite-Time H_{∞} State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols. *Wan, X.*, +, *TCSI Oct. 2018 3481-3491*

Public key cryptography

- A Low-Latency and Low-Complexity Point-Multiplication in ECC. *Salarifard, R.*, +, *TCSI Sept. 2018 2869-2877*
- Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S.*, +, *TCSI Aug. 2018 2477-2490*
- Improved Algorithms and Implementations for Integer to τ NAF Conversion for Koblitz Curves. *Li, L.*, +, *TCSI Jan. 2018 154-162*

Pulse amplitude modulation

- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Pulse compression

- Expansion and Compression of Analog Pulses by Bandwidth Scaling of Continuous-Time Filters. *Mondal, I.*, +, *TCSI Sept. 2018 2703-2714*

Pulse frequency modulation

- A Dual-Output Switched Capacitor DC–DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*
- A Pulse Frequency Modulation Interpretation of VCOs Enabling VCO-ADC Architectures With Extended Noise Shaping. *Gutierrez, E.*, +, *TCSI Feb. 2018 444-457*
- Process Scalability of Pulse-Based Circuits for Analog Image Convolution. *D'Angelo, R.*, +, *TCSI Sept. 2018 2929-2938*

Pulse position modulation

- A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K.*, +, *TCSI Jan. 2018 394-405*
- Analysis and Specification of an IR-UWB Transceiver for High-Speed Chip-to-Chip Communication in a Server Chassis. *Gimeno, C.*, +, *TCSI June 2018 2015-2023*

Pulse width modulation

- A High-Voltage DAC-Based Transmitter for Coded Signals in High-Frequency Ultrasound Imaging Applications. *Ku, P.*, +, *TCSI Sept. 2018 2797-2809*
- A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T.*, +, *TCSI Feb. 2018 758-768*
- Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect. *Kumar, M.*, *TCSI Oct. 2018 3592-3601*

PWM power converters

- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*
- A Dual-Output Switched Capacitor DC–DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*
- A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K.*, +, *TCSI Jan. 2018 394-405*
- A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M.*, +, *TCSI Nov. 2018 3885-3896*
- Unified Digital Modulation Techniques for DC–DC Converters Over a Wide Operating Range: Implementation, Modeling, and Design Guidelines. *Mandi, B.C.*, +, *TCSI April 2018 1442-1453*

Q**Q factor**

- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*

A Pulse Energy Injection Inverter for the Switch-Mode Inductive Power Transfer System. *Wang, Y., +, TCSI July 2018 2330-2340*

An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y., +, TCSI July 2018 2161-2168*

Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickle, M.D., +, TCSI June 2018 1862-1874*

Theory of Double Ladder Lumped Circuits With Degenerate Band Edge. *Sloan, J.T., +, TCSI Jan. 2018 3-13*

TIME—Tunable Inductors Using MEMristors. *Wainstein, N., +, TCSI May 2018 1505-1515*

Quadrature amplitude modulation

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W., +, TCSI Jan. 2018 14-25*

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G., +, TCSI May 2018 1717-1730*

A Discrete-Time RF Signal-Processing Technique for Blocker-Tolerant Receivers With Wide Instantaneous Bandwidth. *Ghadiri-Sadrabadi, M., +, TCSI Dec. 2018 4376-4389*

Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P., +, TCSI Nov. 2018 3780-3789*

Quadrature phase shift keying

400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z., +, TCSI Feb. 2018 745-757*

Quantization (signal)

A Design Method for Nested MASH-SQ Hybrid Divider Controllers for Fractional-*N* Frequency Synthesizers. *Mai, D., +, TCSI Oct. 2018 3279-3290*

All-Digital Transmitter Architecture Based on Two-Path Parallel 1-bit High Pass Filtering DACs. *Gebreyohannes, F.T., +, TCSI Nov. 2018 3956-3969*

An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sum, H., +, TCSI Dec. 2018 4037-4050*

Data-Driven Filtering for Nonlinear Systems With Bounded Noises and Quantized Measurements. *Xia, Y., +, TCSI Oct. 2018 3404-3413*

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J., +, TCSI June 2018 1941-1953*

Min–Max Design of Error Feedback Quantizers Without Overloading. *Ohno, S., +, TCSI April 2018 1395-1405*

Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P., +, TCSI Jan. 2018 74-83*

R

Radar detection

A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar. *Park, P., +, TCSI Sept. 2018 3049-3059*

Radar receivers

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F., +, TCSI Feb. 2018 783-792*

Radar resolution

A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar. *Park, P., +, TCSI Sept. 2018 3049-3059*

Radiation hardening (electronics)

A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. *Fan, H., +, TCSI Nov. 2018 3698-3706*

Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R., +, TCSI April 2018 1293-1302*

Radio links

A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A., +, TCSI Oct. 2018 3174-3185*

Analysis and Specification of an IR-UWB Transceiver for High-Speed Chip-to-Chip Communication in a Server Chassis. *Gimeno, C., +, TCSI June 2018 2015-2023*

Near-Field MIMO Communication Links. *Phang, S., +, TCSI Sept. 2018 3027-3036*

Radio receivers

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W., +, TCSI Jan. 2018 14-25*

A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking. *Bazrafshan, A., +, TCSI Oct. 2018 3186-3195*

A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A., +, TCSI Oct. 2018 3174-3185*

A Discrete-Time RF Signal-Processing Technique for Blocker-Tolerant Receivers With Wide Instantaneous Bandwidth. *Ghadiri-Sadrabadi, M., +, TCSI Dec. 2018 4376-4389*

A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering. *Singh, V.K., +, TCSI July 2018 2304-2317*

A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A., +, TCSI Sept. 2018 3060-3073*

A Systematic Design Method for Direct Delta-Sigma Receivers. *Englund, M., +, TCSI Aug. 2018 2389-2402*

Analysis of the Effect of Source Capacitance and Inductance on *N*-Path Mixers and Filters. *Pavan, S., +, TCSI May 2018 1469-1480*

Modeling and Identification of Ultra-Wideband Analog Multipliers. *Pedross-Engel, A., +, TCSI Jan. 2018 283-292*

System Analysis of Six-Port-Based RF-Receivers. *Mailand, M., TCSI Jan. 2018 319-330*

Radio spectrum management

A Cartesian Error Feedback Architecture. *Li, J., +, TCSI March 2018 1133-1142*

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N., +, TCSI July 2018 2279-2292*

How to Make Analog-to-Information Converters Work in Dynamic Spectrum Environments With Changing Sparsity Conditions. *Yazicigil, R.T., +, TCSI June 2018 1775-1784*

Radio transceivers

A 1-V 10-Gb/s/pin Single-Ended Transceiver With Controllable Active-Inductor-Based Driver and Adaptively Calibrated Cascaded-Equalizer for Post-LPDDR4 Interfaces. *Song, J., +, TCSI Jan. 2018 331-342*

A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar. *Park, P., +, TCSI Sept. 2018 3049-3059*

A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C., +, TCSI Nov. 2018 3918-3928*

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S., +, TCSI Nov. 2018 3745-3755*

A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K., +, TCSI March 2018 1110-1119*

Analysis and Specification of an IR-UWB Transceiver for High-Speed Chip-to-Chip Communication in a Server Chassis. *Gimeno, C., +, TCSI June 2018 2015-2023*

Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S., +, TCSI Sept. 2018 2842-2855*

Radio transmitters

A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W., +, TCSI Jan. 2018 14-25*

A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S., +, TCSI Sept. 2018 3037-3048*

A Modified All-Digital Polar PWM Transmitter. *Pasha, M.T., +, TCSI Feb. 2018 758-768*

A Novel Digital-Intensive Hybrid Polar-I/Q RF Transmitter Architecture. *Buckel, T., +, TCSI Dec. 2018 4390-4403*

A Novel Transmitter Architecture for Spectrally-Precoded OFDM. *Mohamad, M., +, TCSI Aug. 2018 2592-2605*

One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M., +, TCSI June 2018 2005-2014*

Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J., +, TCSI Sept. 2018 3085-3098*

Radiocommunication

A Cartesian Error Feedback Architecture. *Li, J., +, TCSI March 2018 1133-1142*

Radiofrequency filters

A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A., +, TCSI Sept. 2018 3060-3073*

Analysis of the Effect of Source Capacitance and Inductance on *N*-Path Mixers and Filters. *Pavan, S., +, TCSI May 2018 1469-1480*

Radiofrequency integrated circuits

- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldei, M.*, +, *TCSI March 2018 1096-1109*
- A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*
- Analysis and Design of Nonlinear Circuits With a Self-Consistent Carleman Linearization. *Weber, H.*, +, *TCSI Dec. 2018 4272-4284*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*
- TIME—Tunable Inductors Using MEMristors. *Wainstein, N.*, +, *TCSI May 2018 1505-1515*

Radiofrequency interference

- A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A.*, +, *TCSI Oct. 2018 3174-3185*
- A Cartesian Error Feedback Architecture. *Li, J.*, +, *TCSI March 2018 1133-1142*
- A Mixed-Signal Technique for TX-Induced Modulated Spur Cancellation in LTE-CA Receivers. *Elmaghraby, A.*, +, *TCSI Sept. 2018 3060-3073*

Radiofrequency oscillators

- Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018 2127-2138*

Radiofrequency power amplifiers

- Efficient ASK Data and Power Transmission by the Class-E With a Switchable Tuned Network. *Lotfi Navaii, M.*, +, *TCSI Oct. 2018 3255-3266*

Radiofrequency power transmission

- Dual-Phase-Shift Control Scheme With Current-Stress and Efficiency Optimization for Wireless Power Transfer Systems. *Li, Y.*, +, *TCSI Sept. 2018 3110-3121*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*

Random noise

- Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV. *van Santen, V.M.*, +, *TCSI Jan. 2018 293-306*

Random number generation

- A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R.*, +, *TCSI March 2018 1086-1095*
- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for F_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- One-Dimensional Nonlinear Model for Producing Chaos. *Hua, Z.*, +, *TCSI Jan. 2018 235-246*
- Towards a Dependable True Random Number Generator With Self-Repair Capabilities. *Martin, H.*, +, *TCSI Jan. 2018 247-256*
- True Random Number Generator Based on Flip-Flop Resolve Time Instability Boosted by Random Chaotic Source. *Wieczorek, P.Z.*, +, *TCSI April 2018 1279-1292*

Random processes

- Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*

Random sequences

- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*
- Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. *Mafi, H.*, +, *TCSI Dec. 2018 4097-4109*

Random-access storage

- A Digitally Interfaced Analog Correlation Filter System for Object Tracking Applications. *Judy, M.*, +, *TCSI Sept. 2018 2764-2773*
- Advanced Bit Flip Concatenates BCH Code Demonstrates 0.93% Correctable BER and Faster Decoding on (36 864, 32 768) Emerging Memories. *Ning, S.*, +, *TCSI Dec. 2018 4404-4412*
- Auto-Erasable RRAM Architecture Secured Against Physical and Firmware Attacks. *Garcia-Redondo, F.*, +, *TCSI May 2018 1581-1590*
- Data-Cell-Variation-Tolerant Dual-Mode Sensing Scheme for Deep Sub-micrometer STT-RAM. *Na, T.*, +, *TCSI Jan. 2018 163-174*
- IMAGING: In-Memory Algorithms for Image processing. *Haj-Ali, A.*, +, *TCSI Dec. 2018 4258-4271*
- VFAB: A Novel 2-Stage STTRAM Sensing Using Voltage Feedback and Boosting. *Motaman, S.*, +, *TCSI June 2018 1919-1928*

RC circuits

- A CMOS Follower-Type Voltage Regulator With a Distributed-Element Fractional-Order Control. *Kadlcik, L.*, +, *TCSI Sept. 2018 2753-2763*
- A Gm-C Delta-Sigma Modulator With a Merged Input-Feedback Gm Circuit for Nonlinearity Cancellation and Power Efficiency Enhancement. *Basak, D.*, +, *TCSI April 2018 1196-1209*
- Continuous-Time Delta-Sigma Modulators Based on Passive RC Integrators. *de Melo, J.L.A.*, +, *TCSI Nov. 2018 3662-3674*
- Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y.*, +, *TCSI June 2018 1805-1818*
- Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network. *Pavan, S.*, +, *TCSI Oct. 2018 3267-3278*
- Generalized Analytical Equations for Injected Ring Oscillator With RC-Load. *Hazeri, A.R.*, +, *TCSI Jan. 2018 223-234*
- Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N.*, +, *TCSI Aug. 2018 2403-2410*

Readout electronics

- A 1 pF-to-10 nF Generic Capacitance-to-Digital Converter Using Zero-Crossing $\Delta\Sigma$ Modulation. *Li, B.*, +, *TCSI July 2018 2169-2182*
- A 14-ENOB Delta-Sigma-Based Readout Architecture for ECoG Recording Systems. *Ivanisevic, N.*, +, *TCSI Dec. 2018 4051-4061*
- A 18.5 nW 12-bit 1-kS/s Reset-Energy Saving SAR ADC for Bio-Signal Acquisition in 0.18- μm CMOS. *Seo, M.*, +, *TCSI Nov. 2018 3617-3627*
- A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z.*, +, *TCSI Nov. 2018 3821-3829*
- A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory. *Mordakhay, A.*, +, *TCSI April 2018 1224-1233*
- A Self-Test on Wafer Level for a MEM Gyroscope Readout Based on $\Delta\Sigma$ Modulation. *Nessler, S.*, +, *TCSI March 2018 870-880*
- A Wirelessly Powered CMOS Electrochemical Sensing Interface With Power-Aware RF-DC Power Management. *Tsai, J.*, +, *TCSI Sept. 2018 2810-2820*
- Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*
- Differential Capacitive Readout Circuit Using Oversampling Successive Approximation Technique. *Zhong, L.*, +, *TCSI Dec. 2018 4072-4085*
- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*

Reconfigurable architectures

- A Modular and Reconfigurable Pipeline Architecture for Learning Vector Quantization. *Zhang, X.*, +, *TCSI Oct. 2018 3312-3325*

Rectennas

- A 8 mV/15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A.*, +, *TCSI April 2018 1454-1467*

Rectification

- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*

Rectifiers

- A Cost-Effective Adaptive Rectifier for Low Power Loosely Coupled Wireless Power Transfer Systems. *Ozalevli, E.*, +, *TCSI July 2018 2318-2329*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M.*, +, *TCSI Jan. 2018 366-379*
- Dual-Phase-Shift Control Scheme With Current-Stress and Efficiency Optimization for Wireless Power Transfer Systems. *Li, Y.*, +, *TCSI Sept. 2018 3110-3121*
- Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J.*, +, *TCSI April 2018 1234-1244*
- RF-Only Logic: an Area Efficient Logic Family for RF-Power Harvesting Applications. *Zhao, W.*, +, *TCSI Jan. 2018 406-418*

Recursive estimation

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018 2889-2902*

Reduced order systems

Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S.*, +, *TCSI April 2018 1377-1385*

Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D.*, +, *TCSI Aug. 2018 2571-2580*

Redundancy

Reducing the Power Consumption of Fault Tolerant Registers Through Hybrid Protection. *Gonzalez-Toral, R.*, +, *TCSI April 2018 1293-1302*

Reed-Solomon codes

Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Reference circuits

A 0.12–0.4 V, Versatile 3-Transistor CMOS Voltage Reference for Ultra-Low Power Systems. *de Oliveira, A.C.*, +, *TCSI Nov. 2018 3790-3799*

A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L.*, +, *TCSI Jan. 2018 95-106*

A High-Precision Resistor-Less CMOS Compensated Bandgap Reference Based on Successive Voltage-Step Compensation. *Ming, X.*, +, *TCSI Dec. 2018 4086-4096*

A Sub-1ppm/C Current-Mode CMOS Bandgap Reference With Piecewise Curvature Compensation. *Wang, R.*, +, *TCSI March 2018 904-913*

BiCMOS-Based Compensation: Toward Fully Curvature-Corrected Bandgap Reference Circuits. *Huang, Y.*, +, *TCSI April 2018 1210-1223*

Missing-Code-Occurrence Probability Calibration Technique for DAC Nonlinearity With Supply and Reference Circuit Analysis in a SAR ADC. *Wang, G.*, +, *TCSI Nov. 2018 3707-3719*

Reflectometers

Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*

Regression analysis

An Analogue Neuromorphic Co-Processor That Utilizes Device Mismatch for Learning Applications. *Thakur, C.S.*, +, *TCSI April 2018 1174-1184*

Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Relaxation

Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays. *Bernardini, A.*, +, *TCSI April 2018 1363-1376*

Residue number systems

FIR Filter Realization via Deferred End-Around Carry Modular Addition. *Belghadr, A.*, +, *TCSI Sept. 2018 2878-2888*

Resistive RAM

A Resistive RAM-Based FPGA Architecture Equipped With Efficient Programming Circuitry. *Khaleghi, B.*, +, *TCSI July 2018 2196-2209*

A Simple Piecewise Model of Reset/Set Transitions in Bipolar ReRAM Memristive Devices. *Al Chawa, M.M.*, +, *TCSI Oct. 2018 3469-3480*

Design and Hardware Implementation of Neuromorphic Systems With RRAM Synapses and Threshold-Controlled Neurons for Pattern Recognition. *Jiang, Y.*, +, *TCSI Sept. 2018 2726-2738*

Modeling and Analysis of Passive Switching Crossbar Arrays. *Fouda, M.E.*, +, *TCSI Jan. 2018 270-282*

X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design. *Liu, R.*, +, *TCSI Oct. 2018 3459-3468*

Resistors

A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver. *Jung, D.*, +, *TCSI Nov. 2018 3688-3697*

A 4-Channel 12-Bit High-Voltage Radiation-Hardened Digital-to-Analog Converter for Low Orbit Satellite Applications. *Fan, H.*, +, *TCSI Nov. 2018 3698-3706*

Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A.*, +, *TCSI Feb. 2018 556-566*

Monolithic Airflow Detection Chip With Automatic DC Offset Calibration. *Tsai, M.*, +, *TCSI Jan. 2018 107-117*

Resonant power converters

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A.*, +, *TCSI Feb. 2018 842-853*

Resonator filters

Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H.*, +, *TCSI Dec. 2018 4062-4071*

Resource allocation

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J.*, +, *TCSI June 2018 1941-1953*

Riccati equations

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Lossless Systems Storage Function: New Results and Numerically Stable and Non-Iterative Computational Methods. *Kothiyari, A.*, +, *TCSI Dec. 2018 4349-4362*

RLC circuits

Second-Order Equivalent Circuits for the Design of Doubly-Tuned Transformer Matching Networks. *Mazzanti, A.*, +, *TCSI Dec. 2018 4157-4168*

Robust control

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*

Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*

Robustness

Random Fourier Filters Under Maximum Correntropy Criterion. *Wang, S.*, +, *TCSI Oct. 2018 3390-3403*

Rockets

A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. *Farian, L.*, +, *TCSI May 2018 1543-1554*

S

S-matrix theory

Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J.*, +, *TCSI Dec. 2018 4233-4246*

S-parameters

Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*

Sample and hold circuits

Comprehensive Analysis of Distortion in the Passive FET Sample-and-Hold Circuit. *Iizuka, T.*, +, *TCSI April 2018 1157-1173*

Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A.*, +, *TCSI Nov. 2018 3651-3661*

Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P.*, +, *TCSI Jan. 2018 74-83*

Sampled data systems

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J.*, +, *TCSI Dec. 2018 4363-4375*

Sampling methods

Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E.*, +, *TCSI May 2018 1516-1528*

Scheduling

Energy-Efficient Convolution Architecture Based on Rescheduled Dataflow. *Jo, J.*, +, *TCSI Dec. 2018 4196-4207*

Resilient Filtering for Linear Time-Varying Repetitive Processes Under Uniform Quantizations and Round-Robin Protocols. *Wang, F.*, +, *TCSI Sept. 2018 2992-3004*

Schottky diodes

Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J.*, +, *TCSI April 2018 1234-1244*

Search problems

Model Reduction Using Parameterized Limited Frequency Interval Gramians for 1-D and 2-D Separable Denominator Discrete-Time Systems. *Kumar, D.*, +, *TCSI Aug. 2018 2571-2580*

Secondary cells

A Monolithic High-Voltage Li-Ion Battery Charger With Sharp Mode Transition and Partial Current Control Technique. *Wu, J.*, +, *TCSI Sept. 2018 3099-3109*

Security

Towards a Dependable True Random Number Generator With Self-Repair Capabilities. *Martin, H.*, +, *TCSI Jan. 2018 247-256*

Security of data

Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A.*, +, *TCSI March 2018 1003-1015*

Semiconductor device models

- Device and Compact Circuit-Level Modeling of Graphene Field-Effect Transistors for RF and Microwave Applications. *Sang, L.*, +, *TCSI Aug. 2018 2559-2570*
- Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J.*, +, *TCSI April 2018 1234-1244*

Semiconductor device reliability

- Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV. *van Santen, V.M.*, +, *TCSI Jan. 2018 293-306*

Semiconductor diodes

- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*
- An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a $\Delta\Sigma$ Loop. *Chowdhury, G.*, +, *TCSI June 2018 1887-1896*

Semiconductor materials

- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*
- A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*

Semiconductor switches

- A Pulse Energy Injection Inverter for the Switch-Mode Inductive Power Transfer System. *Wang, Y.*, +, *TCSI July 2018 2330-2340*

Sensor arrays

- Asynchronous Spiking Pixel With Programmable Sensitivity to Illumination. *Lenero-Bardallo, J.A.*, +, *TCSI Nov. 2018 3854-3863*

Sensor fusion

- A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z.*, +, *TCSI Nov. 2018 3821-3829*

Sensors

- A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y.*, +, *TCSI Nov. 2018 3810-3820*
- Data-Cell-Variation-Tolerant Dual-Mode Sensing Scheme for Deep Sub-micrometer STT-RAM. *Na, T.*, +, *TCSI Jan. 2018 163-174*
- Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*
- Harvesting Energy From Aviation Data Lines: Implementation and Experimental Results. *Mohajertehrani, M.*, +, *TCSI June 2018 2048-2057*
- Power Bounds and Energy Efficiency in Incremental $\Delta\Sigma$ Analog-to-Digital Converters. *Mohamad, S.*, +, *TCSI Dec. 2018 4110-4120*

Set theory

- Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y.*, +, *TCSI July 2018 2256-2268*

Shift registers

- Variable-Node-Shift Based Architecture for Probabilistic Gradient Descent Bit Flipping on QC-LDPC Codes. *Le, K.*, +, *TCSI July 2018 2183-2195*

Sigma-delta modulation

- A Low-Noise CMOS Image Sensor With Digital Correlated Multiple Sampling. *Chen, N.*, +, *TCSI Jan. 2018 84-94*
- Adaptive Cancellation of Static and Dynamic Mismatch Error in Continuous-Time DACs. *Kong, D.*, +, *TCSI Feb. 2018 421-433*

Signal conditioning circuits

- A Fully Integrated Analog Front End for Biopotential Signal Sensing. *Zheng, J.*, +, *TCSI Nov. 2018 3800-3809*

Signal denoising

- Cloud Computing-Based Non-Invasive Glucose Monitoring for Diabetic Care. *Pai, P.P.*, +, *TCSI Feb. 2018 663-676*

Signal detection

- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*
- A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*
- How to Make Analog-to-Information Converters Work in Dynamic Spectrum Environments With Changing Sparsity Conditions. *Yazicioglu, R.T.*, +, *TCSI June 2018 1775-1784*
- Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N.*, +, *TCSI Aug. 2018 2403-2410*

Signal generators

- USER-SMILE: Ultrafast Stimulus Error Removal and Segmented Model Identification of Linearity Errors for ADC Built-in Self-Test. *Chen, T.*, +, *TCSI July 2018 2059-2069*

Signal processing

- A Cartesian Error Feedback Architecture. *Li, J.*, +, *TCSI March 2018 1133-1142*
- A Low-Latency and Area-Efficient Gram-Schmidt-Based QRD Architecture for MIMO Receiver. *Shin, D.*, +, *TCSI Aug. 2018 2606-2616*
- Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*
- Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*
- System Analysis of Six-Port-Based RF-Receivers. *Miland, M.*, *TCSI Jan. 2018 319-330*
- Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N.*, +, *TCSI Aug. 2018 2403-2410*

Signal reconstruction

- A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering. *Singh, V.K.*, +, *TCSI July 2018 2304-2317*
- A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M.*, +, *TCSI Oct. 2018 3349-3361*
- Adaptive Matrix Design for Boosting Compressed Sensing. *Mangia, M.*, +, *TCSI March 2018 1016-1027*
- Non-Uniform Wavelet Sampling for RF Analog-to-Information Conversion. *Pelissier, M.*, +, *TCSI Feb. 2018 471-484*

Signal representation

- Tri-Phasing Modulation for Efficient and Wideband Radio Transmitters. *Lemberg, J.*, +, *TCSI Sept. 2018 3085-3098*

Signal sampling

- A Frequency-Folded ADC Channelizer With Digital Equalization and Relaxed Anti-Alias Filtering. *Singh, V.K.*, +, *TCSI July 2018 2304-2317*
- A Low-Complexity Hardware for Deterministic Compressive Sensing Reconstruction. *Fardad, M.*, +, *TCSI Oct. 2018 3349-3361*
- Loop-Filter Design and Analysis for Delta-Sigma Modulators and Over-sampled IIR Filters. *Sienko, M.*, *TCSI Dec. 2018 4121-4132*
- Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S.*, +, *TCSI Sept. 2018 2832-2841*
- Non-Uniform Wavelet Sampling for RF Analog-to-Information Conversion. *Pelissier, M.*, +, *TCSI Feb. 2018 471-484*

Silicon

- A Subthreshold Buffer-Based Biquadratic Cell and its Application to Biopotential Filter Design. *Thanapitak, S.*, +, *TCSI Sept. 2018 2774-2783*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A.*, +, *TCSI Nov. 2018 3830-3841*
- Design of an On-Silicon-Interposer Passive Equalizer for Next Generation High Bandwidth Memory With Data Rate Up To 8 Gb/s. *Jeon, Y.*, +, *TCSI July 2018 2293-2303*
- Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. *Zhu, H.*, +, *TCSI Dec. 2018 4062-4071*
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*

Silicon-on-insulator

- A 0.4-V 0.66-fJ/Cycle Retentive True-Single-Phase-Clock 18T Flip-Flop in 28-nm Fully-Depleted SOI CMOS. *Stas, F.*, +, *TCSI March 2018 935-945*
- A 128 kb 7T SRAM Using a Single-Cycle Boosting Mechanism in 28-nm FD-SOI. *Mohammadi, B.*, +, *TCSI April 2018 1257-1268*
- A 25-Gb/s 270-mW Time-to-Digital Converter-Based 8 × Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS. *Ur Rehman, S.*, +, *TCSI Nov. 2018 3720-3733*
- A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Gitterman, R.*, +, *TCSI April 2018 1245-1256*
- A Systematic Design Method for Direct Delta-Sigma Receivers. *Englund, M.*, +, *TCSI Aug. 2018 2389-2402*
- Digitally Assisted On-Chip Body Bias Tuning Scheme for Ultra Low-Power VLSI Systems. *Okuhara, H.*, +, *TCSI Oct. 2018 3241-3254*
- Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Silver

A High Frame Rate Wearable EIT System Using Active Electrode ASICs for Lung Respiration and Heart Rate Monitoring. *Wu, Y., +, TCSI Nov. 2018 3810-3820*

Simulation

Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K., +, TCSI May 2018 1696-1706*

Slow wave structures

A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K., +, TCSI June 2018 1850-1861*

Software radio

A 0.8–4-GHz Software-Defined Radio Receiver With Improved Harmonic Rejection Through Non-Overlapped Clocking. *Bazrafshan, A., +, TCSI Oct. 2018 3186-3195*

System Analysis of Six-Port-Based RF-Receivers. *Mailand, M., TCSI Jan. 2018 319-330*

Special issues and sections

Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F., +, TCSI March 2018 857-858*

Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E., TCSI Nov. 2018 3605*

Spectral analysis

Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M., +, TCSI June 2018 1968-1980*

SPICE

Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E., +, TCSI Oct. 2018 3435-3444*

An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. *Shawkat, M.S.A., +, TCSI Nov. 2018 3830-3841*

Efficient Mapping of Boolean Functions to Memristor Crossbar Using MAGIC NOR Gates. *Thangkhiew, P.L., +, TCSI Aug. 2018 2466-2476*

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A., +, TCSI Aug. 2018 2547-2558*

Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C., +, TCSI Dec. 2018 4313-4325*

X-Point PUF: Exploiting Sneak Paths for a Strong Physical Unclonable Function Design. *Liu, R., +, TCSI Oct. 2018 3459-3468*

Splines (mathematics)

Closed-Form Design of Variable Fractional-Delay FIR Filters With Low or Middle Cutoff Frequencies. *Huang, X., +, TCSI Feb. 2018 628-637*

SRAM chips

A 0.2 V 32-Kb 10T SRAM With 41 nW Standby Power for IoT Applications. *Chien, Y., +, TCSI Aug. 2018 2443-2454*

A 128 kb 7T SRAM Using a Single-Cycle Boosting Mechanism in 28-nm FD-SOI. *Mohammadi, B., +, TCSI April 2018 1257-1268*

A 4-Transistor nMOS-Only Logic-Compatible Gain-Cell Embedded DRAM With Over 1.6-ms Retention Time at 700 mV in 28-nm FD-SOI. *Giterman, R., +, TCSI April 2018 1245-1256*

A Resistive RAM-Based FPGA Architecture Equipped With Efficient Programming Circuitry. *Khaleghi, B., +, TCSI July 2018 2196-2209*

Dynamic Reference Voltage Sensing Scheme for Read Margin Improvement in STT-MRAMs. *Trinh, Q., +, TCSI April 2018 1269-1278*

Energy Optimization for Data Allocation With Hybrid SRAM+NVM SPM. *Wang, Y., +, TCSI Jan. 2018 307-318*

Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S., +, TCSI Dec. 2018 4285-4298*

Methods for Estimating the Convergence of Inter-Chip Min-Entropy of SRAM PUFs. *Liu, H., +, TCSI Feb. 2018 593-605*

On Enhancing Reliability of Weak PUFs via Intelligent Post-Silicon Accelerated Aging. *Islam, M.N., +, TCSI March 2018 960-969*

Pentavariate V_{\min} Analysis of a Subthreshold 10T SRAM Bit Cell With Variation Tolerant Write and Divided Bit-Line Read. *Gupta, S., +, TCSI Oct. 2018 3326-3337*

Reliability in Super- and Near-Threshold Computing: A Unified Model of RTN, BTI, and PV. *van Santen, V.M., +, TCSI Jan. 2018 293-306*

X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A., +, TCSI Dec. 2018 4219-4232*

Stability

De-Correlated Improved Adaptive Exponential FLAF-Based Nonlinear Adaptive Feedback Cancellation for Hearing Aids. *Vasundhara, ., +, TCSI Feb. 2018 650-662*

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y., +, TCSI June 2018 1805-1818*

Event-Based Control for Network Systems via Integral Quadratic Constraints. *Wu, Y., +, TCSI April 2018 1386-1394*

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A., +, TCSI Feb. 2018 842-853*

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W., +, TCSI June 2018 1994-2004*

State estimation

Finite-Time H_{∞} State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols. *Wan, X., +, TCSI Oct. 2018 3481-3491*

State feedback

Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X., +, TCSI July 2018 2243-2255*

Statistical analysis

Analysis and Background Self-Calibration of Comparator Offset in Loop-Unrolled SAR ADCs. *Liu, S., +, TCSI Feb. 2018 458-470*

ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity. *Das, D., +, TCSI Oct. 2018 3300-3311*

Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. *Mafi, H., +, TCSI Dec. 2018 4097-4109*

Statistical distributions

Statistics-Based Digital Background Calibration of Residue Amplifier Nonlinearity in Pipelined ADCs. *Mafi, H., +, TCSI Dec. 2018 4097-4109*

Statistical testing

CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M., +, TCSI May 2018 1628-1641*

Statistics

Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. *Kim, S., +, TCSI Dec. 2018 4285-4298*

Step response

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y., +, TCSI June 2018 1805-1818*

Stereo image processing

High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K., +, TCSI Feb. 2018 606-617*

Real-Time Depth From Focus on a Programmable Focal Plane Processor. *Martel, J.N.P., +, TCSI March 2018 925-934*

Stochastic processes

A Low Complexity Sparse Code Multiple Access Detector Based on Stochastic Computing. *Han, K., +, TCSI Feb. 2018 769-782*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y., +, TCSI Oct. 2018 3492-3505*

Finite-Time H_{∞} State Estimation for Discrete Time-Delayed Genetic Regulatory Networks Under Stochastic Communication Protocols. *Wan, X., +, TCSI Oct. 2018 3481-3491*

Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F., +, TCSI Oct. 2018 3555-3567*

Resilient Filtering for Linear Time-Varying Processes Under Uniform Quantizations and Round-Robin Protocols. *Wang, F., +, TCSI Sept. 2018 2992-3004*

Theory and Demonstration of Noisy Oscillator Samplers for Clock Jitter and Phase Delay Measurement. *Gantsog, E., +, TCSI May 2018 1516-1528*

Stochastic systems

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W., +, TCSI June 2018 1994-2004*

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W., +, TCSI Sept. 2018 2951-2960*

Storage management

Efficient Hardware Architectures for Deep Convolutional Neural Network. *Wang, J., +, TCSI June 2018 1941-1953*

Lossless Systems Storage Function: New Results and Numerically Stable and Non-Iterative Computational Methods. *Kothiyari, A., +, TCSI Dec. 2018 4349-4362*

Submillimeter wave mixers

A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K., +, TCSI March 2018 1110-1119*

Subsynchronous resonance

Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops. *Bizzarri, F., +, TCSI June 2018 1840-1849*

Sun sensors

A Miniaturized Two-Axis Ultra Low Latency and Low-Power Sun Sensor for Attitude Determination of Micro Space Probes. *Farian, L., +, TCSI May 2018 1543-1554*

Support vector machines

A Low Power Diode-Clamped Inverter-Based Strong Physical Unclonable Function for Robust and Lightweight Authentication. *Cao, Y., +, TCSI Nov. 2018 3864-3873*

Switched capacitor filters

A 0.49–13.3 MHz Tunable Fourth-Order LPF with Complex Poles Achieving 28.7 dBm OIP3. *Payandehnia, P., +, TCSI Aug. 2018 2353-2364*

Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network. *Pavan, S., +, TCSI Oct. 2018 3267-3278*

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*

Switched capacitor networks

A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L., +, TCSI Jan. 2018 95-106*

A 93% Peak Efficiency Fully-Integrated Multilevel Multistate Hybrid DC–DC Converter. *Abdulslam, A., +, TCSI Aug. 2018 2617-2630*

A Dual-Output Switched Capacitor DC–DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D., +, TCSI Nov. 2018 4007-4016*

A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X., +, TCSI Feb. 2018 793-803*

Four Monolithically Integrated Switched-Capacitor DC–DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I., +, TCSI June 2018 2035-2047*

High-Performance Switched-Capacitor Boost–Buck Integrated Power Converters. *Allasasmeh, Y., +, TCSI Nov. 2018 3970-3983*

IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. *Saponara, S., +, TCSI Jan. 2018 380-393*

Operational Transconductance Amplifier With Class-B Slew-Rate Boosting for Fast High-Performance Switched-Capacitor Circuits. *Naderi, M.H., +, TCSI Nov. 2018 3769-3779*

Switches

A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L., +, TCSI Jan. 2018 95-106*

Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M., +, TCSI Jan. 2018 366-379*

Switching converters

A Combined Analytical-Numerical Methodology for Predicting Subharmonic Oscillation in H-Bridge Inverters Under Double Edge Modulation. *Aroudi, A.E., +, TCSI July 2018 2341-2351*

A Noise-Shaped Randomized Modulation for Switched-Mode DC-DC Converters. *Cui, K., +, TCSI Jan. 2018 394-405*

A Standard-Cell-Based All-Digital PWM Modulator With High Resolution and Spread-Spectrum Capability. *De Martino, M., +, TCSI Nov. 2018 3885-3896*

Design and Analysis of Energy-Efficient Single-Pulse Piezoelectric Energy Harvester and Power Management IC for Battery-Free Wireless Remote Switch Applications. *Lee, M., +, TCSI Jan. 2018 366-379*

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A., +, TCSI Feb. 2018 842-853*

High-Performance Switched-Capacitor Boost–Buck Integrated Power Converters. *Allasasmeh, Y., +, TCSI Nov. 2018 3970-3983*

Online Built-In Self-Test of High Switching Frequency DC–DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N., +, TCSI Feb. 2018 818-831*

Switching networks

Leader-Following Consensus of Multi-Agent Systems With Switching Networks and Event-Triggered Control. *Liu, K., +, TCSI May 2018 1696-1706*

Switching systems (control)

Cooperative Output Regulation of Singular Multi-Agent Systems Under Switching Network by Standard Reduction. *Wang, S., +, TCSI April 2018 1377-1385*

Symbol manipulation

Generating the Closed-Form Second-Order Characteristics of Analog Differential Cells by Symbolic Perturbation. *Shi, G., TCSI Sept. 2018 2939-2950*

Synchronization

Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops. *Bizzarri, F., +, TCSI June 2018 1840-1849*

Complex Dynamics in Arrays of Memristor Oscillators via the Flux-Charge Method. *Corinto, F., +, TCSI March 2018 1040-1050*

Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H., +, TCSI Oct. 2018 3529-3542*

Event-Triggered Protocol for the Consensus of Multi-Agent Systems With State-Dependent Nonlinear Coupling. *Jia, Q., +, TCSI Feb. 2018 723-732*

Lyapunov Conditions for Stability of Stochastic Impulsive Switched Systems. *Ren, W., +, TCSI June 2018 1994-2004*

Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle. *Ma, Q., +, TCSI May 2018 1684-1695*

Synchrotrons

An Algorithm of an X-ray Hit Allocation to a Single Pixel in a Cluster and Its Test-Circuit Implementation. *Deptuch, G.W., +, TCSI Jan. 2018 185-197*

System-on-chip

A Flexible, Low-Power Analog PLL for SoC and Processors in 14nm CMOS. *Shen, K., +, TCSI July 2018 2109-2117*

An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G., +, TCSI June 2018 1887-1896*

CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M., +, TCSI May 2018 1628-1641*

Optimized Fundamental Signal Processing Operations For Energy Minimization on Heterogeneous Mobile Devices. *Belloch, J.A., +, TCSI May 2018 1614-1627*

Systolic arrays

A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G., +, TCSI May 2018 1717-1730*

Low Complexity Implementation of Unified Systolic Multipliers for NIST Pentanomials and Trinomials Over $GF(2^m)$. *Shao, Q., +, TCSI Aug. 2018 2455-2465*

T**Table lookup**

A Resistive RAM-Based FPGA Architecture Equipped With Efficient Programming Circuitry. *Khaleghi, B., +, TCSI July 2018 2196-2209*

A Variation-Aware Timing Modeling Approach for Write Operation in Hybrid CMOS/STT-MTJ Circuits. *De Rose, R., +, TCSI March 2018 1086-1095*

Tactile sensors

Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A., +, TCSI Nov. 2018 3897-3906*

Takagi-Sugeno model

Reliable Control of Fuzzy Singularly Perturbed Systems and Its Application to Electronic Circuits. *Wang, Y., +, TCSI Oct. 2018 3519-3528*

Telecommunication power management

A Splitting Frequencies-Based Wireless Power and Information Simultaneous Transfer Method. *Kim, J., +, TCSI Dec. 2018 4434-4445*

Temperature measurement

A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z., +, TCSI Nov. 2018 3821-3829*

An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G., +, TCSI June 2018 1887-1896*

An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P., +, TCSI May 2018 1529-1542*

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*

Temperature sensors

A CMOS Temperature Sensor With Versatile Readout Scheme and High Accuracy for Multi-Sensor Systems. *Tang, Z., +, TCSI Nov. 2018 3821-3829*

An On-Chip CMOS Temperature Sensor Using Self-Discharging P-N Diode in a Δ - Σ Loop. *Chowdhury, G., +, TCSI June 2018 1887-1896*

An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P., +, TCSI May 2018 1529-1542*

Sensors

Real-Time Embedded Machine Learning for Tensorial Tactile Data Processing. *Ibrahim, A., +, TCSI Nov. 2018 3897-3906*

Ternary logic

Synthesis of Ternary Logic Circuits Using 2:1 Multiplexers. *Vudadha, C., +, TCSI Dec. 2018 4313-4325*

Thermoelectric conversion

A 12 mV Input, 90.8% Peak Efficiency CRM Boost Converter With a Sub-Threshold Startup Voltage for TEG Energy Harvesting. *Mu, J., +, TCSI Aug. 2018 2631-2640*

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z., +, TCSI May 2018 1744-1757*

Compact Fast-Waking Light/Heat-Harvesting 0.18- μ m CMOS Switched-Inductor Charger. *Blanco, A.A., +, TCSI June 2018 2024-2034*

Thermometers

Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R., +, TCSI Aug. 2018 2422-2430*

Three-dimensional integrated circuits

Efficient Modeling of Crosstalk Noise on Power Distribution Networks for Contactless 3-D ICs. *Papistas, I.A., +, TCSI Aug. 2018 2547-2558*

Mono3D: Open Source Cell Library for Monolithic 3-D Integrated Circuits. *Yan, C., +, TCSI March 2018 1075-1085*

Threshold logic

A Generalized Approach to Implement Efficient CMOS-Based Threshold Logic Functions. *Mozaffari, S.N., +, TCSI March 2018 946-959*

Thyristors

Analytic and Numerical Study of TCSC Devices: Unveiling the Crucial Role of Phase-Locked Loops. *Bizzarri, F., +, TCSI June 2018 1840-1849*

Time series

An Algorithmic Approach for Signal Measurement Using Symbolic Dynamics of Tent Map. *Basu, R., +, TCSI July 2018 2221-2231*

Time-digital conversion

A 25-Gb/s 270-mW Time-to-Digital Converter-Based 8 \times Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS. *Ur Rehman, S., +, TCSI Nov. 2018 3720-3733*

A 3.9 mW Bluetooth Low-Energy Transmitter Using All-Digital PLL-Based Direct FSK Modulation in 55 nm CMOS. *Oh, S., +, TCSI Sept. 2018 3037-3048*

An All-Digital PLL for Cellular Mobile Phones in 28-nm CMOS with 55 dBc Fractional and 91 dBc Reference Spurs. *Kuo, F., +, TCSI Nov. 2018 3756-3768*

An On-Chip Self-Characterization of a Digital-to-Time Converter by Embedding it in a First-Order $\Delta\Sigma$ Loop. *Chen, P., +, TCSI Nov. 2018 3734-3744*

Time-to-Digital Converter With Sample-and-Hold and Quantization Noise Scrambling Using Harmonics in Ring Oscillators. *Caram, J.P., +, TCSI Jan. 2018 74-83*

Time-domain analysis

A Switched Capacitor Energy Harvester Based on a Single-Cycle Criterion for MPPT to Eliminate Storage Capacitor. *Liu, X., +, TCSI Feb. 2018 793-803*

Novel Time-Domain Schottky Diode Modeling for Microwave Rectifier Designs. *Ou, J., +, TCSI April 2018 1234-1244*

PLL-Based Wideband Frequency Modulator: Two-Point Injection Versus Pre-Emphasis Technique. *Cherniak, D., +, TCSI March 2018 914-924*

Time-Domain Characterization of Digitized PWM Inverter With Dead-Time Effect. *Kumar, M., TCSI Oct. 2018 3592-3601*

Time-varying channels

Fully-Parallel Stochastic Decoder for Rate Compatible Modulation. *Lu, F., +, TCSI Oct. 2018 3555-3567*

Time-varying filters

Theoretical Analysis of Circuit Non-Idealities in a Passive Spectrum Scanner Based on Periodically Time-Varying Circuit Components. *Sinha, N., +, TCSI Aug. 2018 2403-2410*

Time-varying networks

A 25-Gb/s 270-mW Time-to-Digital Converter-Based 8 \times Oversampling Input-Delayed Data-Receiver in 45-nm SOI CMOS. *Ur Rehman, S., +, TCSI Nov. 2018 3720-3733*

Impedance Matching and Reradiation in LPTV Receiver Front-Ends: An Analysis Using Conversion Matrices. *Hameed, S., +, TCSI Sept. 2018 2842-2855*

Memristor Circuits: Pulse Programming via Invariant Manifolds. *Corinto, F., +, TCSI April 2018 1327-1339*

Time-varying systems

Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J., +, TCSI April 2018 1185-1195*

Exponential Consensus of Multiagent Systems With Lipschitz Nonlinearities Using Sampled-Data Information. *Fu, J., +, TCSI Dec. 2018 4363-4375*

Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y., +, TCSI May 2018 1707-1716*

Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y., +, TCSI Oct. 2018 3492-3505*

Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J., +, TCSI Feb. 2018 832-841*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Timing jitter

A 2.1-GHz Third-Order Cascaded PLL With Sub-Sampling DLL and Clock-Skew-Sampling Phase Detector. *Huang, Z., +, TCSI July 2018 2118-2126*

An L-Band Low Phase Noise Evanescent-Mode Cavity-Based Frequency Synthesizer. *Wu, Y., +, TCSI July 2018 2161-2168*

Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S., +, TCSI Sept. 2018 2832-2841*

Toeplitz matrices

Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S., +, TCSI Aug. 2018 2477-2490*

Topology

An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F., +, TCSI Aug. 2018 2524-2533*

Robust Reconstruction of Continuously Time-Varying Topologies of Weighted Networks. *Liu, J., +, TCSI Sept. 2018 2970-2982*

Trajectory control

Output Group Synchronization for Networks of Heterogeneous Linear Systems Under Internal Model Principle. *Ma, Q., +, TCSI May 2018 1684-1695*

Transceivers

400-MHz/2.4-GHz Combo WPAN Transceiver IC for Simultaneous Dual-Band Communication With One Single Antenna. *Weng, Z., +, TCSI Feb. 2018 745-757*

Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargaran, E., +, TCSI March 2018 891-903*

Transconductance

Degradation of Alias Rejection in Continuous-Time Delta-Sigma Modulators by Weak Loop-Filter Nonlinearities. *Manivannan, S., +, TCSI Oct. 2018 3207-3215*

Transducers

A High-Voltage DAC-Based Transmitter for Coded Signals in High Frequency Ultrasound Imaging Applications. *Ku, P., +, TCSI Sept. 2018 2797-2809*

Transfer functions

A 0.9-V 100- μ W Feedforward Adder-Less Inverter-Based MASH $\Delta\Sigma$ Modulator With 91-dB Dynamic Range and 20-kHz Bandwidth. *Honarparvar, M., +, TCSI Nov. 2018 3675-3687*

A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S., +, TCSI June 2018 1795-1804*

A Low Noise Low Offset Readout Circuit for Magnetic-Random-Access-Memory. *Mordakhay, A., +, TCSI April 2018 1224-1233*

Analysis and Design of a Ripple Reduction Chopper Bandpass Amplifier. *Zheng, J., +, TCSI April 2018 1185-1195*

Design of High-Order Type-II Delay-Locked Loops With a Fast-Settling-Zero-Overshoot Step Response and Large Jitter-Rejection Capabilities. *Li, Y., +, TCSI June 2018 1805-1818*

Generalized Analysis of High-Order Switch-RC N -Path Mixers/Filters Using the Adjoint Network. *Pavan, S., +, TCSI Oct. 2018 3267-3278*

Loop-Filter Design and Analysis for Delta-Sigma Modulators and Oversampled IIR Filters. *Sienko, M., TCSI Dec. 2018 4121-4132*

Lossless Systems Storage Function: New Results and Numerically Stable and Non-Iterative Computational Methods. *Kothiyari, A., +, TCSI Dec. 2018 4349-4362*

Reset-Free Memoryless Delta-Sigma Analog-to-Digital Conversion. *Kumar, R.S.A., +, TCSI Nov. 2018 3651-3661*

Transformers

- A 8 mV/15 mV Double Polarity Piezoelectric Transformer-Based Step-Up Oscillator for Energy Harvesting Applications. *Camarda, A.*, +, *TCSI April 2018 1454-1467*
- A Fully Integrated Galvanically Isolated DC-DC Converter With Data Communication. *Ragonese, E.*, +, *TCSI April 2018 1432-1441*
- A Fully Isolated Amplifier Based on Charge-Balanced SAR Converters. *Ma, S.*, +, *TCSI June 2018 1795-1804*
- A Transformer-Based 3-dB Differential Coupler. *Wang, Y.*, +, *TCSI July 2018 2151-2160*
- Transformer-Based Input Integrated Matching in Cascode Amplifiers: Analytical Proofs. *Pepe, D.*, +, *TCSI May 2018 1495-1504*

Transient analysis

- Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M.*, +, *TCSI June 2018 1968-1980*

Transient response

- A 220-MHz Bondwire-Based Fully-Integrated KY Converter With Fast Transient Response Under DCM Operation. *Zeng, W.*, +, *TCSI Nov. 2018 3984-3995*
- A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation. *Bu, S.*, +, *TCSI Oct. 2018 3578-3591*
- A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses. *Li, H.*, +, *TCSI Nov. 2018 4027-4034*
- Analysis of the Effect of Source Capacitance and Inductance on *N*-Path Mixers and Filters. *Pavan, S.*, +, *TCSI May 2018 1469-1480*
- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. *Huang, Y.*, +, *TCSI Nov. 2018 4017-4026*
- Online Built-In Self-Test of High Switching Frequency DC-DC Converters Using Model Reference Based System Identification Techniques. *Beohar, N.*, +, *TCSI Feb. 2018 818-831*

Transistors

- An Area-Efficient Column-Parallel Digital Decimation Filter With Pre-BWI Topology for CMOS Image Sensor. *Tang, F.*, +, *TCSI Aug. 2018 2524-2533*

Transmission lines

- A SiGe BiCMOS Concurrent K/V Dual-Band 16-Way Power Divider and Combiner. *Kim, K.*, +, *TCSI June 2018 1850-1861*

Transmitters

- A High-Voltage DAC-Based Transmitter for Coded Signals in High Frequency Ultrasound Imaging Applications. *Ku, P.*, +, *TCSI Sept. 2018 2797-2809*
- A Self-Powered Supply-Sensing Biosensor Platform Using Bio Fuel Cell and Low-Voltage, Low-Cost CMOS Supply-Controlled Ring Oscillator With Inductive-Coupling Transmitter for Healthcare IoT. *Niitsu, K.*, +, *TCSI Sept. 2018 2784-2796*
- Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C.*, +, *TCSI Nov. 2018 3929-3941*
- Digital Complex Delta-Sigma Modulators With Highly Configurable Notches for Multi-Standard Coexistence in Wireless Transmitters. *Marin, R.*, +, *TCSI Jan. 2018 343-352*

Transport protocols

- Fault Detection for Linear Discrete Time-Varying Systems Subject to Random Sensor Delay: A Riccati Equation Approach. *Li, Y.*, +, *TCSI May 2018 1707-1716*

Traveling wave amplifiers

- Amplifier Innovations for Improvement of Rotary Traveling Wave Oscillators. *Marchovsky, A.*, +, *TCSI Feb. 2018 522-530*

Tree searching

- A 0.55 V 1.1 mW Artificial Intelligence Processor With On-Chip PVT Compensation for Autonomous Mobile Robots. *Kim, Y.*, +, *TCSI Feb. 2018 567-580*

Trellis coded modulation

- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Triboelectricity

- Analog Frontend for Tribo-Current-Based Fly-Height Sensor for Magnetic Hard Disk Drive. *Polley, A.*, +, *TCSI Feb. 2018 556-566*

Two dimensional displays

- Superior Execution Time Design of a Space/Spatial-Frequency Optimal Filter for Highly Nonstationary 2D FM Signal Estimation. *Ivanovic, V.N.*, +, *TCSI Oct. 2018 3376-3389*

U**Ubiquitous computing**

- Decision Tree and Random Forest Implementations for Fast Filtering of Sensor Data. *Buschjager, S.*, +, *TCSI Jan. 2018 209-222*

UHF amplifiers

- A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*
- Analysis and Demonstration of an IIP3 Improvement Technique for Low-Power RF Low-Noise Amplifiers. *Chang, C.*, +, *TCSI March 2018 859-869*
- Design and Analysis of 2.4 GHz 30 μ W CMOS LNAs for Wearable WSN Applications. *Kargaran, E.*, +, *TCSI March 2018 891-903*
- Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*

UHF antennas

- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*
- A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A.*, +, *TCSI Oct. 2018 3174-3185*
- Successive Approximation RF Reflectometer for Antenna Tuning in Cellular Handheld Devices. *Solomko, V.*, +, *TCSI May 2018 1731-1743*

UHF couplers

- A Transformer-Based 3-dB Differential Coupler. *Wang, Y.*, +, *TCSI July 2018 2151-2160*

UHF integrated circuits

- 1.5–3.3 GHz, 0.0077 mm², 7 mW All-Digital Delay-Locked Loop With Dead-Zone Free Phase Detector in 0.13 μ m CMOS. *Bayram, E.*, +, *TCSI Jan. 2018 39-50*
- 40-nm CMOS Wideband High-IF Receiver Using a Modified Charge-Sharing Bandpass Filter to Boost Q-Factor. *Baumgratz, F.D.*, +, *TCSI Aug. 2018 2581-2591*
- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*
- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 \times 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- A 2.5-GHz CMOS Full-Duplex Front-End for Asymmetric Data Networks. *Kumar, A.*, +, *TCSI Oct. 2018 3174-3185*

UHF mixers

- A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*

UHF oscillators

- A Low-Power Low-Noise Decade-Bandwidth Switched Transconductor Mixer With AC-Coupled LO Buffers. *Li, H.*, +, *TCSI Feb. 2018 510-521*
- A Phase Tunable Rotary Traveling Wave Oscillator: Analysis and Calibration. *Abbasalizadeh, S.*, +, *TCSI Sept. 2018 2917-2928*

UHF power amplifiers

- A 0.7–2.5 GHz, 61% EIRP System Efficiency, Four-Element MIMO TX System Exploiting Integrated Power-Relaxed Power Amplifiers and an Analog Spatial De-Interleaver. *Yu, W.*, +, *TCSI Jan. 2018 14-25*
- Class-J SiGe X-Band Power Amplifier Using a Ladder Filter-Based AM-PM Distortion Reduction Technique. *Scaramuzza, P.*, +, *TCSI Nov. 2018 3780-3789*

Ultra wideband communication

- A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*
- Analysis and Specification of an IR-UWB Transceiver for High-Speed Chip-to-Chip Communication in a Server Chassis. *Gimeno, C.*, +, *TCSI June 2018 2015-2023*
- Modeling and Identification of Ultra-Wideband Analog Multipliers. *Pedross-Engel, A.*, +, *TCSI Jan. 2018 283-292*
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*
- Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L.*, +, *TCSI June 2018 1875-1886*

Ultra wideband radar

- A Continuous Sweep-Clock-Based Time-Expansion Impulse-Radio Radar. *Park, P.*, +, *TCSI Sept. 2018 3049-3059*

Ultra wideband technology

- Planar Balanced-to-Unbalanced In-Phase Power Divider With Wideband Filtering Response and Ultra-Wideband Common-Mode Rejection. *Jiao, L.*, +, *TCSI June 2018 1875-1886*
- Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*

Ultrasonic imaging

- A High-Voltage DAC-Based Transmitter for Coded Signals in High Frequency Ultrasound Imaging Applications. *Ku, P.*, +, *TCSI Sept. 2018 2797-2809*

Uncertain systems

- Adaptive Fault-Tolerant Consensus for a Class of Uncertain Nonlinear Second-Order Multi-Agent Systems With Circuit Implementation. *Jin, X.*, +, *TCSI July 2018 2243-2255*
- Finite Frequency Filtering Design for Uncertain Discrete-Time Systems Using Past Output Measurements. *Wang, M.*, +, *TCSI Sept. 2018 3005-3013*
- Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*
- Performance Assessment of Discrete-Time Extended State Observers: Theoretical and Experimental Results. *Huang, Y.*, +, *TCSI July 2018 2256-2268*

Uncertainty

- Fault Detection for Linear Discrete Time-Varying Systems With Multiplicative Noise: The Finite-Horizon Case. *Li, Y.*, +, *TCSI Oct. 2018 3492-3505*

V**Varactors**

- Theory and Design of Frequency-Tunable Absorptive Bandstop Filters. *Hickie, M.D.*, +, *TCSI June 2018 1862-1874*

Variable structure systems

- Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*

Variational techniques

- A Variational Approach for Designing Infinite Impulse Response Filters With Time-Varying Parameters. *Toledo de la Garza, K.*, +, *TCSI April 2018 1303-1313*

Varistors

- A 7-GHz CMOS Bidirectional Variable Gain Amplifier With Low Gain and Phase Imbalances. *Suh, B.*, +, *TCSI Sept. 2018 2669-2678*

Vectors

- Faster Residue Multiplication Modulo 521-bit Mersenne Prime and an Application to ECC. *Ali, S.*, +, *TCSI Aug. 2018 2477-2490*
- Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*
- X-SRAM: Enabling In-Memory Boolean Computations in CMOS Static Random Access Memories. *Agrawal, A.*, +, *TCSI Dec. 2018 4219-4232*

Very large scale integration

- Guest Editorial Special Issue on the 2017 IEEE International Symposium on Circuits and Systems (ISCAS 2017). *Pareschi, F.*, +, *TCSI March 2018 857-858*
- Guest Editorial Special Issue on the 2018 International Symposium on Integrated Circuits and Systems. *Blokhina, E.*, *TCSI Nov. 2018 3605*

Vibration measurement

- Integrated ExG, Vibration and Temperature Measurement Front-End for Wearable Sensing. *Rieger, R.*, +, *TCSI Aug. 2018 2422-2430*

Vibrations

- An Active Diode Full-Wave Charge Pump for Low Acceleration Infrastructure-Based Non-Periodic Vibration Energy Harvesting. *McCullagh, J.*, *TCSI May 2018 1758-1770*

Video cameras

- Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A.*, +, *TCSI March 2018 1003-1015*

Video signal processing

- Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. *Thomaz, L.A.*, +, *TCSI March 2018 1003-1015*

Video surveillance

- A Low-Power Vision System With Adaptive Background Subtraction and Image Segmentation for Unusual Event Detection. *Benetti, M.*, +, *TCSI Nov. 2018 3842-3853*

Visual perception

- High-Speed Low-Complexity Guided Image Filtering-Based Disparity Estimation. *Vala, C.K.*, +, *TCSI Feb. 2018 606-617*

Viterbi decoding

- An Energy-Efficient Network-on-Chip-Based Reconfigurable Viterbi Decoder Architecture. *Prasad, N.*, +, *TCSI Oct. 2018 3543-3554*
- Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

VLSI

- A 1.58 Gbps/W 0.40 Gbps/mm² ASIC Implementation of MMSE Detection for 128 × 8 64-QAM Massive MIMO in 65 nm CMOS. *Peng, G.*, +, *TCSI May 2018 1717-1730*
- Accurate Shielded Interconnect Delay Estimation by Reconfigurable Ring Oscillator. *Sarfati, E.*, +, *TCSI Oct. 2018 3435-3444*
- CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for \mathbb{F}_2 -Linear Pseudorandom Number Generation Based on Zynq MPSoC. *Bakiri, M.*, +, *TCSI May 2018 1628-1641*
- Digitally Assisted On-Chip Body Bias Tuning Scheme for Ultra Low-Power VLSI Systems. *Okuhara, H.*, +, *TCSI Oct. 2018 3241-3254*
- VLSI Design and Implementation of Reconfigurable 46-Mode Combined-Radix-Based FFT Hardware Architecture for 3GPP-LTE Applications. *Shih, X.*, +, *TCSI Jan. 2018 118-129*
- VLSI Designs for Joint Channel Estimation and Data Detection in Large SIMO Wireless Systems. *Castaneda, O.*, +, *TCSI March 2018 1120-1132*

Voltage control

- A Dual-Output Switched Capacitor DC-DC Buck Converter Using Adaptive Time Multiplexing Technique in 65-nm CMOS. *Kilani, D.*, +, *TCSI Nov. 2018 4007-4016*
- Dual-Phase-Shift Control Scheme With Current-Stress and Efficiency Optimization for Wireless Power Transfer Systems. *Li, Y.*, +, *TCSI Sept. 2018 3110-3121*
- Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A.*, +, *TCSI Feb. 2018 842-853*
- Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018 2035-2047*
- Optimized Active Disturbance Rejection Control for DC-DC Buck Converters With Uncertainties Using a Reduced-Order GPI Observer. *Yang, J.*, +, *TCSI Feb. 2018 832-841*

Voltage dividers

- A 0.55-V, 28-ppm/C, 83-nW CMOS Sub-BGR With UltraLow Power Curvature Compensation. *Liu, L.*, +, *TCSI Jan. 2018 95-106*

Voltage multipliers

- High-Efficiency Charge Pumps for Low-Power On-Chip Applications. *Jiang, X.*, +, *TCSI March 2018 1143-1153*

Voltage regulators

- A CMOS Follower-Type Voltage Regulator With a Distributed-Element Fractional-Order Control. *Kadlcik, L.*, +, *TCSI Sept. 2018 2753-2763*
- A Fully Integrated Low-Dropout Regulator With Differentiator-Based Active Zero Compensation. *Bu, S.*, +, *TCSI Oct. 2018 3578-3591*
- A Fully on-Chip Digitally Assisted LDO Regulator With Improved Regulation and Transient Responses. *Li, H.*, +, *TCSI Nov. 2018 4027-4034*
- An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*
- ASNI: Attenuated Signature Noise Injection for Low-Overhead Power Side-Channel Attack Immunity. *Das, D.*, +, *TCSI Oct. 2018 3300-3311*
- Four Monolithically Integrated Switched-Capacitor DC-DC Converters With Dynamic Capacitance Sharing in 65-nm CMOS. *Bukreyev, I.*, +, *TCSI June 2018 2035-2047*
- IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. *Saponara, S.*, +, *TCSI Jan. 2018 380-393*
- Nano-Ampere Low-Dropout Regulator Designs for IoT Devices. *Huang, Y.*, +, *TCSI Nov. 2018 4017-4026*

Voltage-controlled oscillators

- A 5 pJ/pulse at 1-Gpps Pulsed Transmitter Based on Asynchronous Logic Master-Slave PLL Synthesis. *Crepaldi, M.*, +, *TCSI March 2018 1096-1109*
- A Low-Reference Spur MDLL-Based Clock Multiplier and Derivation of Discrete-Time Noise Transfer Function for Phase Noise Analysis. *Tak, G.*, +, *TCSI Feb. 2018 485-497*
- A Low-Voltage Low-Phase-Noise 25-GHz Two-Tank Transformer-Feedback VCO. *Guo, S.*, +, *TCSI Oct. 2018 3162-3173*
- A Pulse Frequency Modulation Interpretation of VCOs Enabling VCO-ADC Architectures With Extended Noise Shaping. *Gutierrez, E.*, +, *TCSI Feb. 2018 444-457*
- An Oversampling Stochastic ADC Using VCO-Based Quantizers. *Sun, H.*, +, *TCSI Dec. 2018 4037-4050*
- Efficient Behavioral Simulation of Charge-Pump Phase-Locked Loops. *Leoncini, M.*, +, *TCSI June 2018 1968-1980*
- Low $1/f^3$ Phase Noise Quadrature LC VCOs. *Bhat, A.*, +, *TCSI July 2018 2127-2138*
- One Mbps 1 nJ/b 3.5–4 GHz Fully Integrated FM-UWB Transmitter for WBAN Applications. *Ali, M.*, +, *TCSI June 2018 2005-2014*

Volterra equations

Distortion Contribution Analysis With the Best Linear Approximation. *Cooman, A.*, +, *TCSI Dec. 2018 4133-4146*

Volterra series

A Hardware-Efficient Feedback Polynomial Topology for DPD Linearization of Power Amplifiers: Theory and FPGA Validation. *Cheang, C.*, +, *TCSI Sept. 2018 2889-2902*

Definition of Simplified Frequency-Domain Volterra Models With Quasi-Sinusoidal Input. *Faifer, M.*, +, *TCSI May 2018 1652-1663*

W**Wave digital filters**

Modeling Circuits With Arbitrary Topologies and Active Linear Multiports Using Wave Digital Filters. *Werner, K.J.*, +, *TCSI Dec. 2018 4233-4246*

Wave-Based Analysis of Large Nonlinear Photovoltaic Arrays. *Bernardini, A.*, +, *TCSI April 2018 1363-1376*

Wavelet transforms

A Dual-Resolution Wavelet-Based Energy Detection Spectrum Sensing for UWB-Based Cognitive Radios. *Kim, N.*, +, *TCSI July 2018 2279-2292*

Low-Cost Lifting Architecture and Lossless Implementation of Daubechies-8 Wavelets. *Hasan, M.M.*, +, *TCSI Aug. 2018 2515-2523*

Non-Uniform Wavelet Sampling for RF Analog-to-Information Conversion. *Pelissier, M.*, +, *TCSI Feb. 2018 471-484*

Weibull distribution

Observer-Based Adaptive SMC for Nonlinear Uncertain Singular Semi-Markov Jump Systems With Applications to DC Motor. *Qi, W.*, +, *TCSI Sept. 2018 2951-2960*

White noise

Analysis of Ranging Precision in an FMCW Radar Measurement Using a Phase-Locked Loop. *Herzel, F.*, +, *TCSI Feb. 2018 783-792*

Modeling Random Clock Jitter Effect of High-Speed Current-Steering NRZ and RZ DAC. *Kim, S.*, +, *TCSI Sept. 2018 2832-2841*

Wideband amplifiers

A Full Ka-Band Power Amplifier With 32.9% PAE and 15.3-dBm Power in 65-nm CMOS. *Jia, H.*, +, *TCSI Sept. 2018 2657-2668*

A Seven-Octave Broadband LNA MMIC Using Bandwidth Extension Techniques and Improved Active Load. *Hu, J.*, +, *TCSI Oct. 2018 3150-3161*

A Silicon-Based Low-Power Broadband Transimpedance Amplifier. *Karimi-Bidhendi, A.*, +, *TCSI Feb. 2018 498-509*

A W-Band Balanced Power Amplifier Using Broadside Coupled Strip-Line Coupler in SiGe BiCMOS 0.13- μm Technology. *Hou, Z.J.*, +, *TCSI July 2018 2139-2150*

A Wideband Inductorless dB-Linear Automatic Gain Control Amplifier Using a Single-Branch Negative Exponential Generator for Wireline Applications. *Kong, L.*, +, *TCSI Oct. 2018 3196-3206*

Power and Conjugately Matched High Band UWB Power Amplifier. *Milicevic, M.M.*, +, *TCSI Oct. 2018 3138-3149*

Wideband Inductorless Low-Power LNAs with G_m Enhancement and Noise-Cancellation. *Pan, Z.*, +, *TCSI Jan. 2018 26-38*

Wideband Techniques for Outphasing Power Amplifiers. *Holzer, K.D.*, +, *TCSI Sept. 2018 2715-2725*

Wireless channels

A Hardware-Scalable DSP Architecture for Beam Selection in mm-Wave MU-MIMO Systems. *Yeh, C.*, +, *TCSI Nov. 2018 3918-3928*

Design Techniques for High-Speed Multi-Level Viterbi Detectors and Trellis-Coded-Modulation Decoders. *Yueksel, H.*, +, *TCSI Oct. 2018 3529-3542*

Near-Field MIMO Communication Links. *Phang, S.*, +, *TCSI Sept. 2018 3027-3036*

Wireless LAN

A Mixed-Signal Circuit Technique for Cancellation of Interferers Modulated by LO Phase-Noise in 4G/5G CA Transceivers. *Sadjina, S.*, +, *TCSI Nov. 2018 3745-3755*

Wireless regional area networks

A Sub-mW Integrating Mixer SAR Spectrum Sensor for Portable Cognitive Radio Applications. *Banovic, K.*, +, *TCSI March 2018 1110-1119*

Wireless sensor networks

A Low-Power, Wireless, Capacitive Sensing Frontend Based on a Self-Oscillating Inductive Link. *Schormans, M.*, +, *TCSI Sept. 2018 2645-2656*

Adaptive Learning-Based Compressive Sampling for Low-power Wireless Implants. *Aprile, C.*, +, *TCSI Nov. 2018 3929-3941*

An RF-Powered Wireless Temperature Sensor for Harsh Environment Monitoring With Non-Intermittent Operation. *Saffari, P.*, +, *TCSI May 2018 1529-1542*

Current Mirror Array: A Novel Circuit Topology for Combining Physical Unclonable Function and Machine Learning. *Wang, Z.*, +, *TCSI April 2018 1314-1326*

Design and Analysis of 2.4 GHz 30 μW CMOS LNAs for Wearable WSN Applications. *Kargaran, E.*, +, *TCSI March 2018 891-903*

Z**Zero current switching**

A Sub-10 mV Power Converter With Fully Integrated Self-Start, MPPT, and ZCS Control for Thermoelectric Energy Harvesting. *Luo, Z.*, +, *TCSI May 2018 1744-1757*

Zero voltage switching

Fifth-Order T-Type Passive Resonant Tanks Tailored for Constant Current Resonant Converters. *Khoshsaadat, A.*, +, *TCSI Feb. 2018 842-853*