

Editor's Column

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The first principle is that you must not fool yourself and you are the easiest person to fool.

Richard P. Feynman

Editorial Letter

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THE December issue of *Electronics* journal in 2019 contains five regular papers that present recent advancements in the field of electronics, audio signal processing and control theory applied to power grids balancing.

The paper “A Novel Domino Logic with Modified Keeper in 16nm CMOS Technology”, authored by S. Singhal, A. Mehra, and U. Tripathi, proposes a novel domino logic aimed at improving the power dissipation and reducing consumed area of the circuit. A comparison with previous techniques is provided in the paper as well as simulation results obtained using Ngspice simulator.

The paper “Single-Stage Operational Transconductance Amplifier Design in UTBSOI Technology Based on g_m/I_d Methodology” by R. U. Ahmed, E. A. Vijaykumar, and P. Saha adopts the g_m/I_d methodology for designing the single-stage Operational Transconductance Amplifier (OTA). Simulation results, obtained with Cadence-Spectre, confirms that UTBSOI (Ultra-Thin-Body Silicon-On-Insulator) transistor in sub-micron regime (180nm) can be successfully used to design analog circuits. It is also shown that UTBSOI-OTA introduces some improvements in terms of DC gain and power consumption in comparison to the CMOS-OTA realization.

The paper “Dual Output Sinusoidal Oscillator Using Se-

cond Generation Controlled Conveyor” by S. Zahiruddin, A. Srinivasulu, and M. Sarada presents a dual-output sinusoidal oscillator realized using the second generation current-controlled conveyor (CCCII). The authors proposed a circuit realized using commercially available CCCII and provided results obtained using PSPICE simulator. Additionally, the correct operation of the circuit was confirmed experimentally.

The paper “Contribution to Time and Frequency Analysis of Irregular Sleep Snoring” by M. Rezki and A. Alimohad gives a summary analysis of human hearing focusing on acute snoring. The author proposed VAD (Voice Activity Detection) technique for detecting apnea episodes in the snoring signal.

The paper “PI Regulator with Tracking Anti-Windup Based Modified Power Balance Theory for SAPF under Unbalanced Grid Voltage Unbalance Non Linear Loads” by K. Kamel, Z. Laid, and B. Amar presents a modified power balance theory for extracting the reference compensating currents to shunt active power filter (SAPF) which is applied to illuminate current harmonics and compensate reactive power under unbalanced voltages and unbalancing non-linear loads. The authors developed a MATLAB/Simulink model of the control system to verify the performance of the proposed technique. The presented simulation results imply that low percentage of THD (Total Harmonic Distortion) can be achieved even in the case of unbalanced grid voltage.

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