

Noise Filtering and Linearization of Single-Ended Circuits

Dr. Gabor C. Temes
Professor, Oregon State University

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Refreshments will be served

Abstract: The performance of analog integrated circuits is often limited by the noise generated in its components. Several circuit techniques exist for suppressing the effects of the low-frequency noise. In this talk, first some existing techniques are described for noise mitigation. Then a novel approach is proposed, which can suppress low-frequency noise, and reduce the power dissipation of the conventional design. In addition, the new process will also reduce even-order distortion, another major limitation of analog circuits. Finally, it may allow the use of single-ended circuits in applications where usually differential structures are needed.

Biography:



Dr. Gabor C. Temes received the Ph.D. degree in electrical engineering from the University of Ottawa, ON, Canada, in 1961, and an honorary doctorate from the Technical University of Budapest, Budapest, Hungary, in 1991. He held academic positions at the Technical University of Budapest, Stanford University and the University of California at Los Angeles. He worked in industry at Northern Electric R&D Laboratories and at Ampex Corp. He is now a Professor in the School of Electrical Engineering and Computer Science at Oregon State University. Dr. Temes received the IEEE Leon K. Kirchmayer Graduate Teaching Award in 1998, and the IEEE Millennium Medal in 2000. He was the 2006 recipient of the IEEE Gustav Robert Kirchhoff Award, and the 2009 IEEE CAS Mac Valkenburg Award. He received the 2017 Semiconductor Industry Association-SRC University Researcher Award. He is a member of the National Academy of Engineering.