

A CHRONOLOGICAL LIST OF REFERENCES ON SWITCHED CAPACITOR NETWORKS AND TECHNIQUES FOR THE PERIOD 1981–1992

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A chronological list of 440 references on switched capacitor (SC) networks from 1939 to May 1981 was published in this Journal by J. Vandewalle. In this communication, we present a compilation of 1357 references covering the period from May 1981–1992 (along with a supplementary list of 43 missing references for the period before May 1981). The present compilation and the earlier one by Vandewalle put together, thus, constitute an exhaustive bibliography of 1797 references on SC-networks and techniques till 1992.

I. INTRODUCTION

The importance of SC-networks in the area of instrumentation and communication is well established. Because of their suitability to VLSI implementation, along with digital networks on the same chip and their low cost coupled with accuracy, SC-networks have greatly enhanced their applicability in the electronics world. Enormous volumes of literature on the SC-techniques for different applications is now available. Many design procedures including those based upon immittance simulation and wave concepts have been evolved. Application of SC-networks in the design of FIR and IIR filters and neural networks have also been reported. Moreover, many computer-aided techniques have been developed to perform the frequency response analysis, noise analysis and sensitivity analysis. Peculiar effects, such as effects of aliasing, parasitic stray capacitances, offsets, drifts, op-amp poles, finite switch resistances, and nonlinearities, have also been studied. Many more new applications of these networks are at threshold.

As a bibliography of work done in SC-networks to May, 1981 already exists [84], a compilation of the works done in this area after the period May 1981 is of significant interest in order to have a comprehensive collection of references from 1939 through 1992.

The present compilation is based upon the literature available in Journals, books, tutorial reviews, and conferences, and is arranged in order of their dates of publication.

An attempt has been made to classify the various contributions into eight categories. The classes to which a work belongs, has been indicated within braces at the end of each reference. The various categories are as follows:

(A) Analysis, Synthesis, and Design: This class covers the contributions dealing with the mathematical techniques for analysis (including computer-aided analysis), synthesis, and design techniques (including those based upon wave concepts and signal flow graphs) of SC-networks and their hardware implementations. Also included are papers dealing with sensitivity analysis, noise analysis, and approaches to obtain stray insensitive realizations.

(B) Amplification: This class is concerned with SC-amplifiers and their applications; different types of integrators, differentiators, and techniques for measurement of their parameters.

(C) Oscillators: Publications belonging to this class deal with various types of oscillators, ultra high frequency oscillators, and voltage controlled oscillators.

(D) Filters: This category includes different types of passive and active SC-filters (including biquads), and their improved versions; analysis of canonic, programmable, wave SC filters; design of filters using other active elements such as Current Conveyors and design of filters for SC-phase locked loops and other related ideas.

(E) Digital filters: This class covers the design of SC-based FIR, IIR, and digitally programmable filters.

(F) Immittance Simulation: This category includes circuits for simulating inductance and various other types of elements such as FDNR, and FDNC, etc. Realizations of gyrators and immittance converters are also covered here.

(G) Converters: Publications belonging to this class deal with various types of converters such as A/D, D/A, DC/AC, AC/DC, and DC/DC.

(H) General: This class includes references of Bibliographies, and Books published on SC-networks.

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