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Contents

System modeling based on the fractional-order differential equation lends additional flexibility and better performance compared to the traditional approach [1]. The practical applications of fractional calculus has pervaded in nearly every scientific discipline [2]. In particular, the transition from integer-order based control theory to the fractional one has markedly improved system performances, including robustness and sensitivity [3]. The realization of analog fractional-order (FO) controllers using fractance elements has started receiving significant attention from researchers [4], [5]. Recent fabrication trends for the fractance elements attract their possible commercialization in the future [6].

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