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A Novel Approach for Better OSR in 4th Order Sigma-Delta Modulator using GA

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Abstract— **Sigma delta modulators (ΣΔMs) form part of the core of today's mixed-signal designs. The ongoing research on these devices shows the potential of ΣΔ data converters as a promising candidate for high-speed, high-resolution, and low-power mixed-signal interfaces. This paper addresses the design of a fourth-order multi-bit sigma-delta modulator suitable for Wireless Local Area Networks (WLAN) receivers with feed forward path and the optimum coefficients were selected using genetic algorithm (GA) -based search method.**

Keywords- **ΣΔMs, fourth order ΣΔM, GA, WLAN.**