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A review on techniques and modelling methodologies used for checking electromagnetic interference in integrated circuits

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Abstract
The proper function of the integrated circuit (IC) in an inhibiting electromagnetic environment has always been a serious concern throughout the decades of revolution in the world of electronics, from disjunct devices to today's integrated circuit technology, where billions of transistors are combined on a single chip. The automotive industry and smart vehicles in particular, are confronting design issues such as being prone to electromagnetic interference (EMI). Electronic control devices calculate incorrect outputs because of EMI and sensors give misleading values which can prove fatal in case of automotives. In this paper, the authors have non exhaustively tried to review research work concerned with the investigation of EMI in ICs and prediction of this EMI using various modelling methodologies and measurement setups.

Author Keywords
Electromagnetic compatibility; Electromagnetic interference; Integrated circuits; Modelling

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