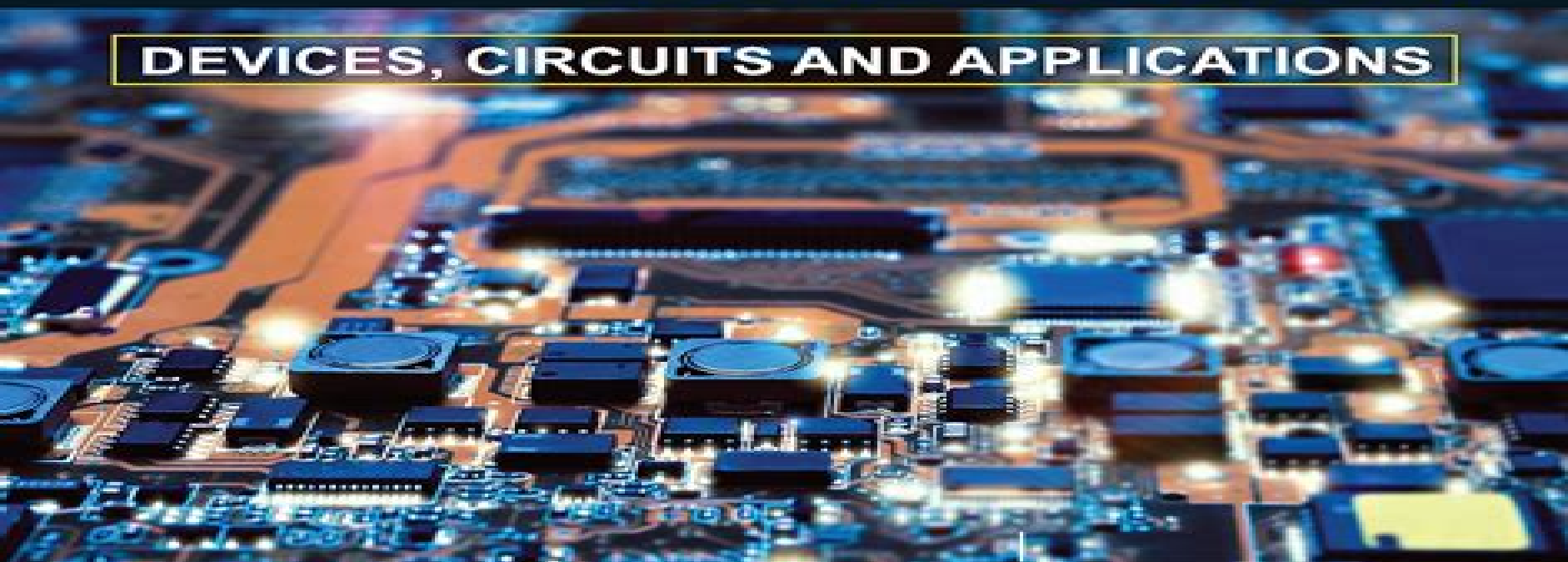


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MUHAMMAD H. RASHID

# **Power Electronics Circuits Devices And Applications**

**Muhammad H. Rashid, Narendra Kumar  
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Narayanaswamy P R Iyer, 2018-03-09 Provides a step by step method for the development of a virtual interactive power electronics laboratory The book is suitable for undergraduates and graduates for their laboratory course and projects in power electronics It is equally suitable for professional engineers in the power electronics industry The reader will learn to develop interactive virtual power electronics laboratory and perform simulations of their own as well as any given power electronic converter design using SIMULINK with advanced system model and circuit component level model Features Examples and Case Studies included throughout Introductory simulation of power electronic converters is performed using either PSIM or MICROCAP Software Covers interactive system model developed for three phase Diode Clamped Three Level Inverter Flying Capacitor Three Level Inverter Five Level Cascaded H Bridge Inverter Multicarrier Sine Phase Shift PWM and Multicarrier Sine Level Shift PWM System models of power electronic converters are verified for performance using interactive circuit component level models developed using Simscape Electrical Power Systems and Specialized Technology block set Presents software in the loop or Processor in the loop simulation with a power electronic converter examples

Electronic Circuit Design Nihal Kularatna, 2017-12-19 With growing consumer demand for portability and miniaturization in electronics design engineers must concentrate on many additional aspects in their core design The plethora of components that must be considered requires that engineers have a concise understanding of each aspect of the design process in order to prevent bug laden prototypes Electronic Circuit Design allows engineers to understand the total design process and develop prototypes which require little to no debugging before release It provides step by step instruction featuring modern components such as analog and mixed signal blocks in each chapter The book details every aspect of the design process from conceptualization and specification to final implementation and release The text also demonstrates how to utilize device data sheet information and associated application notes to design an electronic system The hybrid nature of electronic system design poses a great challenge to engineers This book equips electronics designers with the practical knowledge and tools

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