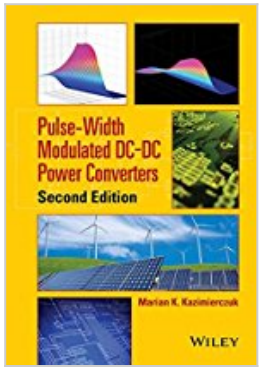

Pulse-Width Modulated DC-DC Power Converters

By Marian K. Kazimierczuk

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PWM DC-DC power converter technology underpins many energy conversion systems including renewable energy circuits, active power factor correctors, battery chargers, portable devices and LED drivers.

Following the success of *Pulse-Width Modulated DC-DC Power Converters* this second edition has been thoroughly revised and expanded to cover the latest challenges and advances in the field.

Key features of *2nd edition*:

- Four new chapters, detailing the latest advances in power conversion, focus on: small-signal model and dynamic characteristics of the buck converter in continuous conduction mode; voltage-mode control of buck converter; small-signal model and characteristics of the boost converter in the discontinuous conduction mode and electromagnetic compatibility EMC.
- Provides readers with a solid understanding of the principles of operation, synthesis, analysis and design of PWM power converters and semiconductor power devices, including wide band-gap power devices (SiC and GaN).
- Fully revised Solutions for all end-of-chapter problems available to instructors via the book companion website.
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- Fully revised figures based on real data.

With improved end-of-chapter summaries of key concepts, review questions, problems and answers, biographies and case studies, this is an essential textbook for graduate and senior undergraduate students in electrical engineering. Its superior readability and clarity of explanations also makes it a key reference for practicing engineers and research scientists.

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From the Back Cover

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Marian K. Kazimierczuk is a Professor of Electrical Engineering at Wright State University's Department of Electrical Engineering. He has taught graduate courses in high-frequency electronics for 30 years and his research interests include: RF power amplifiers, power electronics, high-frequency magnetics and renewable energy sources. He has published 6 books, over 160 journal papers and over 200 conference papers. Marian K. Kazimierczuk also holds seven patents, is an IEEE Fellow and serves as an Associate Editor of the IEEE Transactions on Industrial Electronics, IEEE Transactions on Circuits and Systems and International Journal of Circuit Theory and Applications.

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