

Adaptive Voltage Control in Power Systems

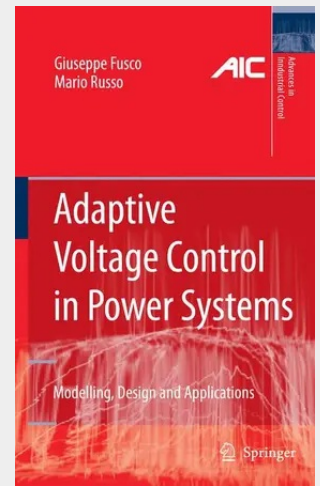
Modeling, Design and Applications

One of the main requirements of power quality management is the guarantee of an adequate sinusoidal voltage waveform profile at each node of a network. Such a guarantee is facilitated by adaptive systems able to account for unpredictable fluctuations in operating conditions.

A self-contained blend of theory and novel application, this book is a detailed treatment of self-tuning control schemes. The reader moves from power system modelling problems through illustrations of the main adaptive control systems to a detailed description of design methods: Kalman filtering, parameter-identification algorithms and discrete-time controller design are all represented. Case studies address applications issues in the implementation of adaptive voltage control.

Practicing engineers and researchers in power systems and control engineering will find this monograph, written by researchers from each field, to be a valuable synthesis of both, while its accessible style will also appeal to graduate students.

One of the main requirements of power quality management is the guarantee of an adequate sinusoidal voltage waveform profile at each node of a network. Such a guarantee is facilitated by adaptive systems able to account for unpredictable fluctuations in operating conditions. A self-contained blend of theory and novel application, this book is a detailed treatment of self-tuning control schemes. The reader moves from power system modelling problems through illustrations of the main adaptive control systems to a detailed description of design methods: Kalman filtering, parameter-identification algorithms and discrete-time controller design are all represented. Case studies address applications issues in the implementation of adaptive voltage control. Practicing engineers and researchers in power systems and control engineering will find this monograph, written by researchers from each field, to be a valuable synthesis of both, while its accessible style will also appeal to graduate students.



106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781846285646
Medium: Buch
ISBN: 978-1-84628-564-6
Verlag: Springer
Erscheinungstermin: 17.11.2006
Sprache(n): Englisch
Auflage: 1. Auflage, 2006
Serie: Advances in Industrial Control
Produktform: Gebunden
Gewicht: 442 g
Seiten: 163
Format (B x H): 160 x 241 mm

