NONLINEAR DYNAMICAL SYSTEMS

SECOND EDITION

PRENTICE HALL INTERNATIONAL SERIES IN SYSTEMS AND CONTROL ENGINEERING

P.A. COOK

Series Editor
M. J. GRIMBLE

Contents

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This fully revised edition of a best selling textbook includes up-dated and new material on feedback linearization, I/O systems, adaptive control and discrete-time systems.

In addition, the text includes the following key features:

- *Full coverage of all the basic methods (phase plane, describing function, point transformation, Tsypkin, Lyapunov) used in the analysis and design of nonlinear control systems.*
- *Introduction to modern developments (chaotic motion, variable-structure systems, absolute stability, adaptive control).*
- *Presentation of an analysis of how nonlinearities affect performance of control systems and methods of overcoming deleterious effects.*
- *Examination of nonlinear effects in sampled-date systems, essential in modern digital control.*
- *Numerous examples illustrating the application of analytical methods to cases taken from a variety of fields where nonlinear systems occur.*

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