



2013, VII, 231 p. 13 illus.

Printed book

Softcover

74,99 € | £64.99 | \$89.99

^[1]80,24 € (D) | 82,49 € (A) | CHF

88,50

eBook

64,19 € | £51.99 | \$69.99

^[2]64,19 € (D) | 64,19 € (A) | CHF

70,50

Available from your library or

springer.com/shop

MyCopy ^[3]

Printed eBook for just

€ | \$ 24.99

springer.com/mycopy

Achim Ilchmann, Timo Reis (Eds.)

Surveys in Differential-Algebraic Equations I

Series: Differential-Algebraic Equations Forum

- A collection of survey articles, covering a broad spectrum of areas related to DAEs, each of which presented in an individual chapter
- Unique in the sense that other books provide rather an introduction to the principles of DAEs
- Suitable not only for graduate students for self-study but also for active researchers by dealing with specific aspects of particular fields of DAEs

The need for a rigorous mathematical theory for Differential-Algebraic Equations (DAEs) has its roots in the widespread applications of controlled dynamical systems, especially in mechanical and electrical engineering. Due to the strong relation to (ordinary) differential equations, the literature for DAEs mainly started out from introductory textbooks. As such, the present monograph is new in the sense that it comprises survey articles on various fields of DAEs, providing reviews, presentations of the current state of research and new concepts in

- Controllability for linear DAEs - Port-Hamiltonian differential-algebraic systems
- Robustness of DAEs - Solution concepts for DAEs - DAEs in circuit modeling.

The results in the individual chapters are presented in an accessible style, making this book suitable not only for active researchers but also for graduate students (with a good knowledge of the basic principles of DAEs) for self-study.

Order online at springer.com / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

