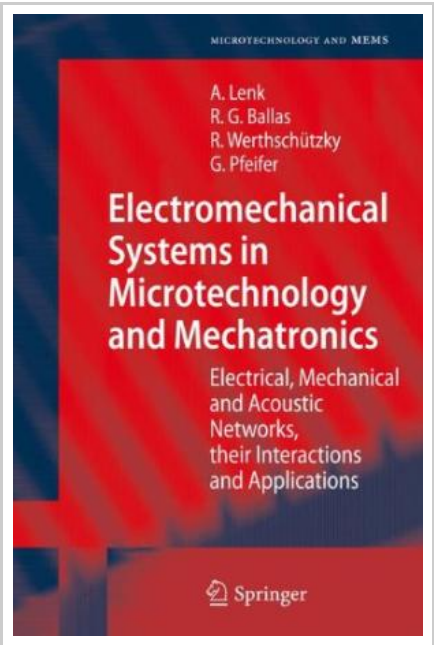

Electromechanical Systems in Microtechnology and Mechatronics: Electrical, Mechanical and Acoustic Networks, their Interactions and Applications (Hardback)

By Rüdiger Ballas, Roland Werthschützky, Günther Pfeifer

Springer-Verlag Berlin and Heidelberg GmbH Co. KG, Germany, 2010. Hardback. Condition: New. 2011. Language: English . Brand New Book. Electromechanical systems consisting of electrical, mechanical and acoustic subsystems are of special importance in various technical fields, e.g. precision device engineering, sensor and actuator technology, electroacoustics and medical engineering. Based on a circuit-oriented representation, providing readers with a descriptive engineering design method for these systems is the goal of this textbook. It offers an easy and fast introduction to mechanical, acoustic, fluid, thermal and hydraulic problems through the application of circuit-oriented basic knowledge. The network description methodology, presented in detail, is extended to finite network elements and combined with the finite element method (FEM): the combination of the advantages of both description methods results in novel approaches, especially in the higher frequency range. The book offers numerous current examples of both the design of sensors and actuators and that of direct coupled sensor-actuator systems. The appendix provides more extensive fundamentals for signal description, as well as a compilation of important material characteristics. The textbook is suitable both for graduate students and for engineers working in the fields of electrical engineering, information technology, mechatronics, microtechnology, and mechanical and medical engineering.

Reviews

Basically no terms to clarify. It is actually writter in basic terms rather than confusing. I found out this ebook from my dad and i suggested this book to find out.

-- ***Elinore Vandervort***

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