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Sommario/riassunto

About the Book: This book presents an introduction to MATLAB and its applications in engineering problem solving. The book is designed as an introductory course in MATLAB for engineers. The classical methods of electrical circuits, control systems, numerical methods, optimization, direct numerical integration methods, engineering mechanics and mechanical vibrations are covered using MATLAB software. The numerous worked examples and unsolved exercise problems are intended to provide the reader with an awareness of the general applicability to electrical circuits, control systems, numerical methods, optimization, direct numerical integration methods, engineering mechanics and mechanical vibrations using MATLAB. Extensive references to guide the student to further sources of information on electrical circuits, control systems, numerical methods, optimization, direct numerical integration methods, engineering mechanics, and mechanical vibrations using MATLAB is provided at the end of each chapter. Contents: MATLAB Basics Electrical Circuits Control Systems Numerical Methods Optimization Direct Numerical Integration Methods Engineering Mechanics Mechanical Vibration