



final chapters deal with applications, addressing the development of approximate nonlinear filters, and presenting a critical analysis of their performance.

In this updated edition the main thrust is on applied Kalman filtering. Chapters 1-3 provide a minimal background in random process theory and the response of linear systems to random inputs. The following chapter is devoted to Wiener filtering and the remainder of the text deals with various facets of Kalman filtering with emphasis on applications. Starred problems at the end of each chapter are computer exercises. The authors believe that programming the equations and analyzing the results of specific examples is the best way to obtain the insight that is essential in engineering work.

Model based control has emerged as an important way to improve plant efficiency in the process industries, while meeting processing and operating policy constraints. The reader of Methods of Model Based Process Control will find state of the art reports on model based control technology presented by the world's leading scientists and experts from industry. All the important issues that a model based control system has to address are covered in depth, ranging from dynamic simulation and control-relevant identification to information integration. Specific emerging topics are also covered, such as robust control and nonlinear model predictive control. In addition to critical reviews of recent advances, the reader will find new ideas, industrial applications and views of future needs and challenges. Audience: A reference for graduate-level courses and a comprehensive guide for researchers and industrial control engineers in their exploration of the latest trends in the area.

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