Optimal Estimation of Dynamic Systems, Second Edition (Chapman & Hall/CRC Applied Mathematics & Nonlinear Science)

By John L. Crassidis, John L. Junkins

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Optimal Estimation of Dynamic Systems, Second Edition highlights the importance of both physical and numerical modeling in solving dynamics-based estimation problems found in engineering systems. Accessible to engineering students, applied mathematicians, and practicing engineers, the text presents the central concepts and methods of optimal estimation theory and applies the methods to problems with varying degrees of analytical and numerical difficulty. Different approaches are often compared to show their absolute and relative utility. The authors also offer prototype algorithms to stimulate the development and proper use of efficient computer programs. MATLAB® codes for the examples are available on the book's website.

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Editorial Review

Review
Praise for the First Edition
A nice feature of this book is that it makes the effort to explain the underlying principles behind the formula for each algorithm; the relationship between different algorithms is equally well addressed. … The text is a good combination of theory and practice. It will be a valuable addition to references for academic researchers and industrial engineers working in the field of estimation. It will also serve as a useful reference for graduate courses in control and estimation.
?*AIAA Journal*, Vol. 43, No. 1, January 2005

About the Author

John L. Crassidis, Ph.D., is a professor of mechanical and aerospace engineering and the associate director of the Center for Multisource Information Fusion at the University at Buffalo, State University of New York. He previously worked at Texas A&M University, the Catholic University of America, and NASA's Goddard Space Flight Center, where he contributed to attitude determination and control schemes for numerous spacecraft missions.

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