Differential Game Theory with Applications to Missiles and Autonomous Systems Guidance

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DESCRIPTION

Differential Game Theory with Applications to Missiles and Autonomous Systems explains the use of differential game theory in autonomous guidance and control systems.

The book begins with an introduction to the basic principles before considering optimum control and game theory. Two-party and multi-party game theory and guidance are then covered and, finally, the theory is demonstrated through simulation examples and models and the simulation results are discussed. Recent developments in the area of guidance and autonomous systems are also presented.

Key features:

• Presents new developments and how they relate to established control systems knowledge.
• Demonstrates the theory through simulation examples and models.
• Covers two-party and multi-party game theory and guidance.
• Accompanied by a website hosting MATLAB® code.

The book is essential reading for researchers and practitioners in the aerospace and defence industries as well as graduate students in aerospace engineering.
ABOUT THE AUTHOR

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Professor Dr. Farhan A. Faruqi is the Head of the Intelligent Autonomous Systems Research Guidance and Control Group in the Defence Science and Technology Organisation in Australia. He is also an Adjunct Professor at the University of South Australia. His main areas of expertise include autonomous systems navigation; guidance and control; target tracking; and intelligent autonomous systems. He has more than twenty years’ experience in the Aerospace and Defence Industry in the UK, USA, and Australia.

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