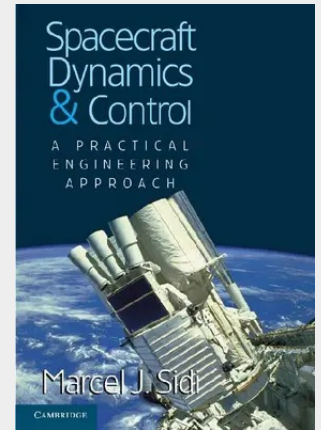


Spacecraft Dynamics and Control

A Practical Engineering Approach

Satellites are used increasingly in telecommunications, scientific research, surveillance, and meteorology, and these satellites rely heavily on the effectiveness of complex onboard control systems. This 1997 book explains the basic theory of spacecraft dynamics and control and the practical aspects of controlling a satellite. The emphasis throughout is on analyzing and solving real-world engineering problems. For example, the author discusses orbital and rotational dynamics of spacecraft under a variety of environmental conditions, along with the realistic constraints imposed by available hardware. Among the topics covered are orbital dynamics, attitude dynamics, gravity gradient stabilization, single and dual spin stabilization, attitude maneuvers, attitude stabilization, and structural dynamics and liquid sloshing.

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119,50 €

119,50 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780521787802

Medium: Buch

ISBN: 978-0-521-78780-2

Verlag: Cambridge University Press

Erscheinungstermin: 01.11.2010

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2010

Serie: Cambridge Aerospace Series

Produktform: Kartoniert

Gewicht: 808 g

Seiten: 432

Format (B x H): 178 x 254 mm

