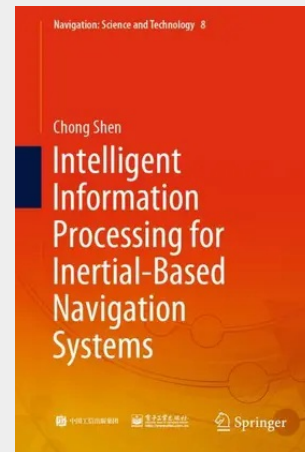


Intelligent Information Processing for Inertial-Based Navigation Systems

This book introduces typical inertial devices and inertial-based integrated navigation systems, gyro noise suppression, gyro temperature drift error modeling compensation, inertial-based integrated navigation systems under discontinuous observation conditions, and inertial-based brain integrated navigation systems. Integrated navigation is the result of the development of modern navigation theory and technology. The inertial navigation system has the advantages of strong autonomy, high short-term accuracy, all-day time, all weather, and so on. And it has been applied in most integrated navigation systems. Among them, the information processing of inertial-based integrated navigation system is the core technology. Due to the effect of the device mechanism and working environment, there are errors in the output information of the inertial-based integrated navigation system, including gyroscope noise, temperature drift, and discontinuous observations, which will seriously reduce the accuracy and robustness of the system. And the book helps readers to solve these problems. The intelligent information processing technology involved is equipped with simulation verification, which can be used as a reference for undergraduate, graduate, and Ph.D. students, and also scientific researchers or engineers engaged in navigation-related specialties.

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106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9789813345157
Medium: Buch
ISBN: 978-981-334-515-7
Verlag: Springer
Erscheinungstermin: 05.01.2021
Sprache(n): Englisch
Auflage: 1. Auflage 2021
Serie: Navigation: Science and Technology
Produktform: Gebunden
Gewicht: 371 g
Seiten: 124
Format (B x H): 160 x 241 mm

