1. Record Nr. UNISA996336122003316

Titolo	BBC Monitoring Asia Pacific - Political
Pubbl/distr/stampa	BBC Worldwide Limited
Soggetti	Business, Economy and Management - General and Others Information Technology - General and Others
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico

2. Record Nr. UNINA9910149365403321

Titolo	Multisensor attitude estimation : fundamental concepts and applications / / edited by Hassen Fourati, University Grenoble Alpes, Grenoble, France, and Djamel Eddine Chouaib Belkhiat, Universite Ferhat Abbas-Setif 1, Setif, Algeria ; Krzysztof In
Pubbl/distr/stampa	Boca Raton : , : Taylor & Francis, CRC Press, , [2017] ©2017
ISBN	1-315-35175-7 1-5231-0831-2 1-315-36879-X 1-4987-4580-6
Edizione	[1st ed.]
Descrizione fisica	1 online resource (607 pages) : illustrations
Collana	Devices, Circuits, and Systems
Disciplina	681/.2
Soggetti	Motion detectors Multisensor data fusion Electronics in navigation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Section I. Preliminaries on attitude representations and rotations --

Section II. Multisensor filtering for attitude estimation : theories and applications.

Sommario/riassunto

There has been an increasing interest in multi-disciplinary research on multisensor attitude estimation technology driven by its versatility and diverse areas of application, such as sensor networks, robotics, navigation, video, biomedicine, etc. Attitude estimation consists of the determination of rigid bodies' orientation in 3D space. This research area is a multilevel, multifaceted process handling the automatic association, correlation, estimation, and combination of data and information from several sources. Data fusion for attitude estimation is motivated by several issues and problems, such as data imperfection, data multi-modality, data dimensionality, processing framework, etc. While many of these problems have been identified and heavily investigated, no single data fusion algorithm is capable of addressing all the aforementioned challenges. The variety of methods in the literature focus on a subset of these issues to solve, which would be determined based on the application in hand. Historically, the problem of attitude estimation has been introduced by Grace Wahba in 1965 within the estimate of satellite attitude and aerospace applications. This book intends to provide the reader with both a generic and comprehensive view of contemporary data fusion methodologies for attitude estimation, as well as the most recent researches and novel advances on multisensor attitude estimation task. It explores the design of algorithms and architectures, benefits, and challenging aspects, as well as a broad array of disciplines, including: navigation, robotics, biomedicine, motion analysis, etc. A number of issues that make data fusion for attitude estimation a challenging task, and which will be discussed through the different chapters of the book, are related to: 1) The nature of sensors and information sources (accelerometer, gyroscope, magnetometer, GPS, inclinometer, etc.); 2) The computational ability at the sensors; 3) The theoretical developments and convergence proofs; 4) The system architecture, computational resources, fusion level.