1. Record Nr. UNINA9910825297003321 Autore Rashvand Habib F Titolo Distributed sensor systems: practice and applications / / Habib F. Rashvand, Jose M. Alcaraz Calero Chichester, West Sussex;; Hoboken, N.J.,: Wiley, 2012 Pubbl/distr/stampa **ISBN** 1-119-94198-9 1-280-58909-4 9786613618924 1-119-94135-0 1-119-94134-2 Edizione [1st edition] Descrizione fisica 1 online resource (379 p.) Altri autori (Persone) Alcaraz CaleroJose M 681/.2 Disciplina Soggetti Sensor networks - Design and construction Sensor networks - Industrial applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto List of Figures xi -- List of Tables xxi -- Preface xxiii --Acknowledgements xxvii -- List of Abbreviations xxix -- 1 Distributed Sensors 1 -- 1.1 Primary Objectives 1 -- 1.1.1 User-Based Category 2 -- 1.1.2 Sector-Based Category 5 -- 1.1.3 Primary Objectives 5 -- 1.2 Historical Development 8 -- 1.2.1 Sensing 8 -- 1.2.2 Historical Sensor Generations 8 -- 1.3 Trends and Technology 10 -- 1.3.1 Market Development Trends 10 -- 1.3.2 Technological Developments 12 --1.4 Distributed Intelligence 15 -- 1.4.1 Innovation 16 -- 1.4.2 Dis-Invention 19 -- 1.4.3 Intelligent Agent 19 -- 1.4.4 Deployment Factor 20 -- 1.4.5 Overlay Network 21 -- 1.4.6 Deployment Algorithm 21 --1.5 Classifying Application Areas 25 -- 1.5.1 Domain-Based Classification 26 -- 1.5.2 Mobility-Based Classification 26 -- 1.5.3 Intelligence-Based Classification 27 -- 2 Smart Sensing Devices 31 --2.1 Specification and Classification 31 -- 2.2 Elementary Sensing

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Sommario/riassunto

This book focuses on the distinct but tightly inter-related areas of development for distributed sensing systems In this book, the authors discuss the technological developments lead by sensor technology. addressing viable new applications to inspire a technological evolution. Under the advanced and visionary approach of distributed intelligence, the authors focus on three distinct but tightly inter-related areas of developments for distributed sensing systems (DSS): firstly, the sensor technology embracing the conversion of the phenomena of interest into desirable form of signal such as electric, secondly, the interaction process between sensing points which requires immense intelligence loosely called networking, and finally, the adoption of useful maturing systems through potential applications for right impacts for a better life and a brighter economy. Furthermore, the book contains a number of case studies and typical applications illustrating the technical details, features and functions of the systems, as well as demonstrating their benefits and limitations. Key Features: . Discusses the technological developments lead by sensor technology. Addresses viable new applications. Contains a number of case studies and typical applications illustrating the technical details, features and functions of the systems. Demonstrates the benefits and limitations of distributed

sensing. Written by experts with vast experience in the field (both in academia and industry) This book will be an invaluable reference for postgraduates studying related courses (communication engineering, engineering management, computer systems, industrial process, automation, design, environmental, urban, surveillance), R&D engineers, system and application designers, researchers, industrial project managers and engineers, and technical and strategic managers planning new products.