Record Nr. UNINA9910787844603321 Global urban monitoring and assessment through earth observation // **Titolo** edited by Qihao Weng Pubbl/distr/stampa Boca Raton:,: CRC Press,, [2014] ©2014 **ISBN** 0-429-10022-1 1-4665-6449-0 Descrizione fisica 1 online resource (412 p.) Collana Taylor & Francis series in remote sensing applications Classificazione TEC009020TEC010000TEC036000 Disciplina 910.28/7 910.287 Urban geography - Remote sensing - International cooperation Soggetti Land use, Urban - Remote sensing - International cooperation Environmental monitoring - Remote sensing - International cooperation Geographic information systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Front Cover; Contents; Foreword: GEO-A Globally Integrated Approach Nota di contenuto to Urban Monitoring; Editor; Contributors; MATLAB® Statement; Chapter 1: What Is Special about Global Urban Remote Sensing?: Chapter 2: Global Urban Observation and Information: GEO's Effort to Address the Impacts of Human Settlements: Chapter 3: EO Data Processing and Interpretation for Human Settlement Characterization: A Really Global Challenge; Chapter 4: Urban Observing Sensors; Chapter 5: Mapping Global Human Settlements Pattern Using SAR Data Acquired by the TanDEM-X Mission Chapter 6: National Trends in Satellite-Observed Lighting: 1992-2012Chapter 7: Development of a Global Built-Up Area Map Using ASTER Satellite Images and Existing GIS Data; Chapter 8: Building of a Global Human Settlement Layer from Fine-Scale Remotely Sensed Data;

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## Sommario/riassunto

Cities and towns are the original producers of many of the global environmental problems related to waste disposal, air and water pollution. There is a rapidly growing need for technologies that will enable monitoring of the world's natural resources and urban assets, and managing exposure to natural and man-made risks. The Group on Earth Observation calls for strengthening the cooperation and coordination among global observing systems and research programs. The book introduces this important international collaborative effort, reviews the current state of global urban remote sensing, and expands on future directions in the field. --