Record Nr. UNINA9910786833603321 Laser and photonic systems : design and integration / / edited by **Titolo** Shimon Y. Nof, Andrew M. Weiner, Gary J. Cheng Pubbl/distr/stampa Boca Raton:,: Taylor & Francis,, [2014] ©2014 **ISBN** 0-429-10196-1 1-4665-6952-2 Edizione [1st edition] Descrizione fisica 1 online resource (418 p.) Collana Industrial and Systems Engineering Series Classificazione TEC009000TEC019000TEC020000 Disciplina 621.36/6 621.366 Soggetti Lasers 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. Nota di contenuto Front Cover; Contents; Foreword; Preface; Editors; Contributors; Chapter 1: Introduction; Chapter 2: Laser-Based Manufacturing Systems for Nanomaterials and Nanostructures; Chapter 3: Photonic Systems for Crystalline Silicon and Thin-Film Photovoltaic Manufacturing; Chapter 4: Optics in Healthcare: A Systems Perspective; Chapter 5: Biomedical Applications of Coherent Light Scattering; Chapter 6: Lasers in Medicine: Innovations and Applications; Chapter 7: Shaping Ultrafast Laser Fields for Photonic Signal Processing; Chapter 8: Terahertz Wave Air Photonics: Bridging the Gap and Beyond Chapter 9: Precision Collaboration and Advanced Integration Using Laser Systems and TechniquesChapter 10: Sensing and Informatics in Laser-Based Nanomanufacturing Processes; Chapter 11: System Optimization for Laser and Photonic Applications; Chapter 12: Network Models and Operations of Laser and Photonics Systems; Chapter 13: Dynamic Resource Allocation in Human-Centered Service Robot Applications; Chapter 14: Laser Applications in Safety and Ergonomics; Chapter 15: Lasers in Our Life and Implications to Education; Back Cover Laser and photonic technologies and solutions influenced many aspects Sommario/riassunto

of everyday life. With new and significant recent scientific discoveries in

their fields, systems perspectives and integrated design approaches can improve even further the impact in critical areas of challenge. Yet this knowledge is dispersed across several disciplines and research arenas. This book brings together a multidisciplinary group of experts in many of these areas to foster increased understanding of the ways in which systems perspectives may influence laser and photonic innovations and application integration--