1. Record Nr. UNINA9911011350403321

Autore Pandey Ashok Kumar

Titolo Proceedings of ISSS International Conference on Micro, Nano, and Smart

Systems: IC-MNSS 2024, IISc-Bengaluru, India / / edited by Ashok

Kumar Pandey, Maryam Shojaei Baghini, Gondi Kondaiah Ananthasuresh

Pubbl/distr/stampa Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025

ISBN 981-9634-45-8

Edizione [1st ed. 2025.]

Descrizione fisica 1 online resource (437 pages)

Collana Lecture Notes in Mechanical Engineering, , 2195-4364

Altri autori (Persone) Shojaei BaghiniMaryam

AnanthasureshGondi Kondaiah

Disciplina 621

Soggetti Mechanical engineering

Materials science

Materials

Mechanical Engineering

Materials Science
Materials Engineering

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto This book presents select proceedings of the ISSS International

Conference on Micro, Nano, and Smart Systems (IC-MNSS) in IISc Bengaluru during July 9 to 12, 2024 and presents different applications of smart materials and systems in aerospace, robotics, quantum, agriculture, and biomedical technologies followed by microfabrication processes and packaging technologies required to design and develop different sensors on micro and nanoscale. The first few chapters cover shape memory alloys (SMA) and its modelling and remaining chapters outline the application of smart systems and materials in quantum technology, digital agriculture, and healthcare. After describing the microfabrication processes in bulk and surface micromachining processes, the design and development of various sensors are demonstrated in the last few chapters. The book is valuable to researchers and professionals working in the area of micro and nanobased design, fabrication, and development of sensors, and their

application in smart systems, water purification, and energy harvesting.