1. Record Nr. UNINA9910726288903321 Autore Tarnita Daniela Titolo New Trends in Medical and Service Robotics: MESROB 2023 / / edited by Daniela Tarnita, Nicolae Dumitru, Doina Pisla, Giuseppe Carbone, Ionut Geonea Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2023 Pubbl/distr/stampa **ISBN** 9783031324468 9783031324451 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (400 pages) Collana Mechanisms and Machine Science, , 2211-0992; ; 133 Altri autori (Persone) DumitruNicolae PislaDoina CarboneGiuseppe Geonealonut Disciplina 610.285 Soggetti Biomedical engineering Robotics Machinery Biomedical Engineering and Bioengineering Robotic Engineering Machinery and Machine Elements Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Preface -- Organization -- Contents -- Surgical Robotics --Soft Robot Assistance for Tumor Biopsy and Ablation in Magnetic Resonance Imaging\*-12pt -- 1 Introduction -- 2 Concept and Methods -- 2.1 Requirements for Percutaneous Interventions Using the Assistance System in MRI -- 2.2 Procedure of the Medical Intervention with the Assistance System -- 2.3 Conceptual Design of the Robotic System -- 2.4 Sterility Concept -- 2.5 Fabrication of the Soft Robot --

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1.1 A Subsection Sample.

## Sommario/riassunto

This volume contains the papers of the 8th International Workshop on Medical and Service Robots (MESROB) which was held in Craiova, Romania, on June 7-10, 2023. The main topics include: design of medical devices, kinematics and dynamics for medical robotics, exoskeletons and prostheses, anthropomorphic hands, therapeutic robots and rehabilitation, cognitive robots, humanoid and service robots, assistive robots and elderly assistance, surgical robots, humanobot interfaces, haptic devices, medical treatments, medical lasers, and surgical planning and navigation. The contributions, which were selected by means of a rigorous international peer-review process, highlight numerous exciting ideas that will spur novel research directions and foster multidisciplinary collaboration among different specialists, demonstrating that medical and service robotics will drive the technological and societal change in the coming decades.