1. Record Nr. UNINA9910879582103321 Autore Rosati Giulio **Titolo** New Trends in Mechanism and Machine Science: Proceedings of EuCoMeS 2024 / / edited by Giulio Rosati, Alessandro Gasparetto, Marco Ceccarelli Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 3-031-67295-X Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (404 pages) Collana Mechanisms and Machine Science, , 2211-0992;; 165 Altri autori (Persone) GasparettoAlessandro CeccarelliMarco Disciplina 621.8 Soggetti Machinery Mechanics, Applied Control engineering Robotics Automation Machinery and Machine Elements **Engineering Mechanics** Control, Robotics, Automation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Design and Testing of a holter device for respiration monitoring --Design and Testing of a holter device for respiration monitoring --Problems and requirements for motion assisting devices for elderly people -- Requirements for robotic gynecologic surgery --Performance testing of an integrated car child restraint system --Design problems and requirements for assisting devices -- Analysis of the Foot Ground Contact using an MSD FEM Co simulation Approach --A flexible instrument for robotic assisted minimally invasive esophagectomy -- Control scheme for a cable driven robotic arm --Design of a robotic cable device for rehabilitation of the upper limbs --Planning of underactuated differentially flat robot trajectories with a via point -- Model inversion for tip control of underactuated nonminimum phase gantry cranes with small inertia ratio -- Increasing

lifting efficiency of a cable driven crane through motion design.

Sommario/riassunto

This book gathers the proceedings of the 9th European Conference on Mechanism Science (EuCoMeS), which was held in Padua, Italy, on September 18–20, 2024, under the patronage of IFToMM. It presents the latest research and industrial applications in the areas of mechanism science, robotics, and dynamics. The contributions cover such topics as computational kinematics, control issues in mechanical systems, mechanisms for medical rehabilitation, mechanisms for minimally invasive techniques, cable robots, design issues for mechanisms and robots, and the teaching and history of mechanisms. Written by leading researchers and engineers and selected by means of a rigorous international peer-review process, the papers highlight numerous exciting ideas that will spur novel research directions and foster multidisciplinary collaborations.