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Nota di contenuto	Study Concerning Design and Optimization of a Multifunction Actuation Group for an Industrial Exoskeleton -- Finite element model updating applied to a lower limb prosthesis through the optimisation of its mechanical properties -- An Interactive Combined Mechatronic Approach to Enhance Upper Limb Rehabilitation -- Application of a multibody approach for the Digital Twinning of the human robot ecosystem in upper limb rehabilitation -- Effect of joint misalignment in upper limb exoskeleton based on McKibben muscles -- Estimating the Position of Surgical Needle Tips Hidden in Organs Using Generative Adversarial Networks -- Robot Assisted Rehabilitation mechatronic redesign of a finger exoskeleton to improve its motion tracking capabilities -- Upper Limbs Industrial Exoskeletons an Objective and Subjective Evaluation Method -- Design and Preliminary Testing of WELiBot A Wearable End Effector Type Upper Limb Assistive Robot -- Compact Series Elastic Actuator for a Wrist Exoskeleton for Daily Living

Assistance -- Ability Mining of Toe Manipulation Under Force Against Toe Flexion -- A feasibility study for a cable driven parallel robot for integrated wrist and fingers rehabilitation -- A 3D Printed Wearable Glove with Inflatable Chambers -- Analysis of bend-over gesture wearing a trunk support exoskeleton -- Anthropomorphic neck for a crash dummy -- eXoft Innovative Soft Rigid Exoskeleton for Smart Factory.

Sommario/riassunto

This book presents the proceedings of the 5th International Conference of IFToMM ITALY (IFIT), held in Turin, Italy on September 11–13, 2024. It includes peer-reviewed papers on the latest advances in mechanism and machine science, discussing topics such as biomechanical engineering, computational kinematics, the history of mechanism and machine science, gearing and transmissions, multi-body dynamics, robotics and mechatronics, the dynamics of machinery, tribology, vibrations, rotor dynamics and vehicle dynamics. A valuable, up-to-date resource, it offers an essential overview of the subject for scientists and practitioners alike and inspires further investigations and research.
