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| Autore | Lenari Jadran |
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| Altri autori (Persone) | HustyManfred |
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| Nota di contenuto | Foreword -- Preface -- Organization -- Contents -- Ferdinand Freudenstein's Spatial Kinematics -- 1 Introduction -- 2 Course Context -- 3 Course Topics -- 4 Summary -- References -- The Inverse Kinematics of Cable-Driven Parallel Robot with More Than 6 Sagging Cables Part 1: From Ideal to Sagging Cables -- 1 Introduction -- 2 Inverse Kinematics with Ideal Cables -- 3 Inverse Kinematics with Sagging Cables -- 4 Deriving a Sagging Solution from the Ideal Case Results -- 4.1 Checking and Improving the IK Solution -- 5 Conclusion -- References -- The Inverse Kinematics of Cable-Driven Parallel Robot with More Than 6 Sagging Cables Part 2: Using Neural Networks -- 1 Introduction -- 2 Inverse Kinematics and Sagging Cables -- 3 Inverse Kinematics with Neural Networks -- 3.1 Obtaining Training and Verification Sets -- 3.2 Training -- 4 Conclusion -- References -- A Screw Theory-Based Method for Approximate Static Balancing of a RSSR-SS Mechanism -- 1 |

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| | Introduction -- 2 Balancer RSSR-SS Mechanism -- 3 Kinematic Position Analysis |
| Sommario/riassunto | This book is aimed at researchers specializing in the kinematics of robot mechanisms as well as at doctoral students in guiding their research work. A spectrum of the latest achievements in kinematics analysis, modelling, simulation, design and control is covered. New theories and methods are applied to serial, parallel and cable-driven mechanisms for use in industrial or service robotics. The systems range from being less than fully mobile to kinematically redundant and over-constrained. Forty-nine papers are included, arranged in seven chapters, as presented at the 19th Symposium on Advances in Robot Kinematics 2024. The symposium, which has been held since 1988, was organized this time in Ljubljana (Slovenia), where it began thirty-six years ago. The papers have been rigorously selected based on peer review and are arranged in chapters randomly, as is the prevailing tradition of these symposia. In doing so, we aim to give equal emphasis to each of these achievements. |