

Table of Contents

Preface

Study, Design and Preliminary Tests of an Automatic Device for Elbow Rehabilitation D. Fausti, G. Petrogalli, J.H. Villafa�e and R. Faglia	1
Study of a Test Bench for Artificial Heart Valves: Description and Preliminary Results M. Mor, G. Petrogalli, T. Mikolajczyk and R. Faglia	17
The Use of Smart Sensors in Healthcare Applications: Review P. Bellagente, M. Bona and D. Gorni	29
An Hardware-in-the-Loop Tool for the Design of Complex Mechanical Systems Controllers M. Beschi, D. Colombo, P. Grande, F. Padula and A. Visioli	43
The State of the Art of Mobile Robots on a Solid Surface H.R. Rasam, T. Mikolajczyk and D.Y. Pimenov	57
Design and Experimental Validation of a Shape Memory Alloy Actuator for Linear Motors F. Aggogeri and N. Pellegrini	69
A Fuzzy Algorithm to Study the Inverse Kinematics Problem of a Serial Manipulator F. Aggogeri, N. Pellegrini and R. Adamini	77
Optimization of Radial Cams with Translating Roller Follower through Genetic Algorithms A. Borboni	83
Some Methods of Research Results Approximation T. Mikolajczyk and A. Olaru	95
Control System for Industrial Robot Equipped with Tool for Advanced Task in Manufacturing T. Mikolajczyk	105
Mechatronics Tools for Turning T. Mikolajczyk	115