

Table of Contents

Preface

Experimental Validation of Nominal Model Characteristics for Pneumatic Muscle Actuator A. Hošovský and K. Židek	1
Wireless Device Based on MEMS Sensors and Bluetooth Low Energy (LE/Smart) Technology for Diagnostics of Mechatronic Systems K. Židek and A. Hošovský	13
Electro-Pneumatic Robot Actuator with Artificial Muscles and State Feedback M. Tóthová, J. Pitel' and J. Mižáková	23
Material Damping of Fibrous Composites for Devices Driven by Artificial Muscles Z. Murčinková	33
Operational Reliability of Mechatronic Equipment Based on Pneumatic Artificial Muscle Ľ. Straka	41
Analysis of Incremental Measurement of the Arm Position with Actuator R. Krehel' and M. Rimár	49
Proposal of Linear Drive for Mechatronic Facility of Solar Panels M. Rimár, Š. Kuna and I. Čorný	57
Mathematical Description and Static Characteristics of the Spring Actuator with Pneumatic Artificial Muscle A. Vagaská	65
Present Trends in Designing of Technical Systems J. Šeminský	73
Pneumatic Artificial Muscle as Actuator in Mechatronic System J. Mižáková, J. Pitel' and M. Tóthová	81
Modelling of Selected Reliability Indicators of Prototype PAM Equipment Ľ. Straka and S. Fabian	91
Impact of an Excessive Wear of Bearing on the Mechatronic Devices P. Čačko, T. Krenický and J. Dobránsky	99
Study of the Surface Material AISI 304 Usable for Actuator after the Process of Turning A. Panda, J. Duplák, T. Vorobel', J. Jurko and S. Fabian	107