

Contents

Lačezar Ličev, Radim Farana, Tomáš Fabián, Jan Král: Image Transformation and Calibration Using System FOTOM	1
Marek Babiuch, Radim Farana, David Flandor: Implementation of Process Control and Monitoring Software with Dynamic Compilation in .NET Technology	8
Jan Cvejn: Simple PI/PID Controller Tuning Rules for FOPDT Plants with Guaranteed Closed-Loop Stability Margin	17
Andrzej Dzieliński, Dominik Sierociuk, Grzegorz Sarwas, Ivo Petráš, Igor Podlubny, Tomáš Škovránek: Identification of the Fractional-Order Systems: A Frequency Domain Approach	26
Stanislaw Flaga, Janusz Pluta, Bogdan Sapinski: Characterization of MSMA-based Pneumatic Valves	34
Dagmar Janáčková, Hana Charvátová, Karel Kolomazník, Vladimír Vašek, Pavel Mokejš and Rudolf Drga: Computer Simulation of Bound Component Washing To Minimize Processing Costs	39
Leszek Cedro, Dariusz Janecki: Determining of Signal Derivatives in Identification Problems - FIR Differential Filters	47
Rajasekhar Anguluri, Ajith Abraham and Vaclav Snasel: A Hybrid Bacterial Foraging - PSO Algorithm Based Tuning of Optimal FOPI Speed Controller	55
Jiří Tuma, Marek Babiuch, Petr Koci: Calculation of a Shock Response Spectra	66
Anna Vasičkaninová, Monika Bakošová: Neuro-fuzzy Control of Integrating Processes	74
Vojtech Veselý, Quang Thuan Nguyen: Robust Decentralized Controller Design for Large Scale Systems: Subsystems Approach	84
Miluse Víteckova, Antonin Vítecek, Marek Babiuch: Unified Approach to Analog and Digital Two-Degree-of-Freedom PI Controller Tuning for Integrating Plants with Time Delay	89
Jacek Snamina: Optimal Location of an Active Segment of Magnetorheological Fluid Layer in a Sandwich Plate	95
Ivan Brezáni: Formatting Submissions to Acta Montanistica Slovaca Using actamont.cls, LaTeX Document Class Template	101
W. Li, Q. G. Fan, Y. Q. Wang and X. F. Yang: Adaptive Height Adjusting Strategy Research of Shearer Cutting Drum	114