

## CONTENTS

### *Special section*

<b>Zdunek R.</b> Regularized nonnegative matrix factorization: Geometrical interpretation and application to spectral unmixing .....	233
<b>Garda B. and Galias Z.</b> Tikhonov regularization and constrained quadratic programming for magnetic coil design problems .....	249
<b>Makowski R. and Hossa R.</b> Automatic speech signal segmentation based on the innovation adaptive filter ..	259
<b>Bilski P. and Wojciechowski J.</b> Artificial intelligence methods in diagnostics of analog systems .....	271
<b>Pułka A.</b> Selection of search strategies for solving 3-SAT problems .....	283
<b>Fabińska A., Węgliński T., Zakrzewski K. and Nowosławska E.</b> Assessment of hydrocephalus in children based on digital image processing and analysis .....	299

### *Regular section*

<b>Tatjewski P.</b> Disturbance modeling and state estimation for offset-free predictive control with state-space process models .....	313
<b>Zhou L., She J. and Zhou S.</b> A 2D system approach to the design of a robust modified repetitive-control system with a dynamic output-feedback controller .....	325
<b>Kaczorek T.</b> Minimum energy control of fractional positive continuous-time linear systems with bounded inputs	335
<b>Leth J. and Wisniewski R.</b> Local analysis of hybrid systems on polyhedral sets with state-dependent switching	341
<b>Bańska S., Dworak P. and Jaroszewski K.</b> Design of a multivariable neural controller for control of a nonlinear MIMO plant .....	357
<b>Ruiz U., Marroquin J.L. and Murrieta-Cid R.</b> Tracking an omnidirectional evader with a differential drive robot at a bounded variable distance .....	371
<b>Kumar V., Bawa R.K. and Lal A.K.</b> A robust computational technique for a system of singularly perturbed reaction-diffusion equations .....	387
<b>Yao B., Hu P., Zhang M. and Jin M.</b> A support vector machine with the tabu search algorithm for freeway incident detection .....	397
<b>Liu X. and Huang L.</b> An efficient algorithm for adaptive total variation based image decomposition and restoration .....	405
<b>Wu H. and Yan S.</b> Bivariate Hahn moments for image reconstruction .....	417
<b>Rusek K., Janowski L. and Papir Z.</b> Transient and stationary characteristics of a packet buffer modelled as an MAP/SM/1/b system .....	429