

CONTENTS

Control and Informatics

- e139960 **A new extension of the Cayley–Hamilton theorem to fractional different orders linear systems**
Tadeusz Kaczorek
- e140353 **Lyapunov stability based sliding mode observer for sensorless control of permanent magnet synchronous motor**
Navaneethan Soundirarajan, Kanthalakshmi Srinivasan, Aandrew Baggio S.
- e140371 **Optimization of autonomous underwater vehicle mission planning process**
Wojciech Wawrzyński, Mariusz Zieja, Mariusz Żokowski, Norbert Sigieli
- e140518 **Estimation of the angular position of a two-wheeled balancing robot using a real IMU with selected filters**
Krzysztof Laddach, Rafał Łangowski, Tomasz Zubowicz
- e140535 **Matrix black box algorithms - a survey**
Jerzy Respondek
- e140554 **Compiler and virtual machine of a multiplatform control environment**
Jan Sadolewski, Bartosz Trybus
- e140690 **Testing of a price-based system for power balancing on real-life HVAC installation in real life**
Weronika Radziszewska, Marcin A. Bugaj, Mirosław Łuniewski, Gerwin Hoogsteen, Patryk Chaja, Sebastian Bykuć
- e140691 **The obstacle vector field (OVF) method for collision-free trajectory planning of free-floating space manipulator**
Tomasz Rybus

Power Systems and Power Electronics

- e140372 **Reliability assessment of the port power system based on integrated energy hybrid system**
Liang Fang, Xiao-Yan Xu, Jun Xia, Tomasz Tarasiuk
- e140517 **A novel revolutionary substantial transformative control technique for solar fed-full bridge converter based energy stabilization for grid connected applications**
Umamaheswari S., Karthigaivel R., Satheesh Kumar G., Vengadachalam N.
- e140555 **Comparative analysis of multi-criteria decision making methods for the assessment of optimal SVC location**
Faruk Aydin, Bilal Gümüş
- e140556 **Stator winding fault detection of permanent magnet synchronous motors based on the bispectrum analysis**
Przemysław Pietrzak, Marcin Wolkiewicz
- e140686 **Measurement of sprinkled and encapsulated space charge in homo-multilayer dielectric samples using PEA method**
Marek Florkowski, Maciej Kuniewski
- e140695 **Problems related to the correct determination of switching power losses in high-speed SiC MOSFET power modules**
Dawid Zięba, Jacek Rąbkowski

Artificial and Computational Intelligence

- e139959 **Fuzzy comprehensive model of manufacturing industry transfer risk based on economic big data analysis**
Tong Sun, Chunzhi Liu
- e140258 **Information fusion method of multichannel nanosensors based on neural network**
Chaoke Li
- e140259 **A method of point cloud data block registration with considering distance from point to surface**
Yinju Lu, Mingyi Duan, Shuguang Dai
- e140689 **Early detection of major diseases in turmeric plant using improved deep learning algorithm**
Devisurya V., Devi Priya R., Anitha N.

Thermodynamics, Mechanical, Aeronautical Engineering and Robotics

- e140687 **Dynamic performance and stability analysis of an active inerter-based suspension with time-delayed acceleration feedback control**
Yong Wang, Xian-Yu Jin, Yun-Shun Zhang, Hu Ding, Li-Qun Chen
- e140692 **An improved air supply scheme for battery energy storage systems**
Zhu Xinlong, Shi Hong, Xu Wenbing, Zhang Tong, Wang Yansong
- e140693 **Design optimization of the Petri net-based production process supported by additive manufacturing technologies**
Justyna Patalas-Maliszewska, Remigiusz Wiśniewski, Marcin Topczak, Marcin Wojnakowski
- e140694 **Arriving air traffic separations generalized model identification**
Adrian Pawelek, Piotr Lichota

Electronics, Telecommunication and Optoelectronics

- e140467 **TE_{m,1} coaxial modes generator for cold-testing of high power components and devices**
Grzegorz Jaworski, Andrzej Francik, Kacper Nowak
- e140534 **Review of photodetectors characterization methods**
Zbigniew Bielecki, Krzysztof Achtenberg, Małgorzata Kopytko, Janusz Mikołajczyk, Jacek Wojtas, Antoni Rogalski
- e140553 **Characteristic pulse detection method for fuzzy area**
Xin Geng, Baoqiang Du

Civil Engineering

- e140373 **Multi-criteria diagnostics of historic buildings with the use of 3D laser scanning (a case study)**
Anna Szymczak-Graczyk, Zbigniew Walczak, Barbara Ksit, Zdzisław Szyguła