

CONTENTS

Special Section

- e148442 **Selected problems of rotating machinery dynamics**
Tomasz SZOLC
- e147925 **Suppression of rotating machine shaft-line torsional vibrations by a driving asynchronous motor using two advanced control methods**
Paweł HAŃCZUR, Tomasz SZOLC, and Robert KONOWROCKI
- e147060 **Exploiting gyroscopic effects for resonance elimination of an elastic rotor utilizing only one piezo actuator**
Jens JUNGBLUT, Daniel FRANZ, Christian FISCHER, and Stephan RINDERKNECHT
- e148250 **Turbine wheel reduced modal model for self-excited vibration suppression by inter-blade dry-friction damping**
Luděk PEŠEK, Pavel ŠNÁBL, and Chandra Shekhar PRASAD
- e147917 **Thermo-elasto-hydrodynamic analysis of bump-type air foil thrust bearings considering misalignment**
Markus Eickhoff, Johannes Triebwasser, and Bernhard Schweizer
- e147062 **Experimental identification of the force and moment characteristic of symmetrically and non-symmetrically profiled annular seals**
Maximilian M. G. KUHR, and Peter F. PELZ
- e147921 **Vibration reduction on circular saw blades with vibroacoustic metamaterials**
Sebastian RIEB, William KAAL, and Sven HEROLD
- e148252 **Efficient rotordynamic simulations with semi-analytical computation of hydrodynamic forces**
Simon PFEIL, Fabian DUVIGNEAU, and Elmar WOSCHKE
- e148610 **Numerical investigation of rotor-bearing systems with fractional derivative material damping models**
Gregor ÜBERWIMMER, Georg QUINZ, Michael KLANNER, and Katrin ELLERMANN
- e147061 **Data-driven virtual sensor for powertrains based on transfer learning**
Aku KARHINEN, Aleksanteri HÄMÄLÄINEN, Mikael MANNGÅRD, Jesse MIETTINEN, and Raine VIITALA
- e146796 **Controlling bifurcations in high-speed rotors utilizing active gas foil bearings**
Anastasios PAPAPOPOULOS, Ioannis GAVALAS, and Athanasios CHASALEVRIS

Artificial and Computational Intelligence

- e147344 **Research on improved sparrow search algorithm for PID controller parameter optimization**
Mingfeng ZHANG, Chuntian XU, Deying XU, Guoqiang MA, Han HAN, and Xu ZONG
- e147338 **Improved efficient capsule network for Kuzushiji-MNIST benchmark dataset classification**
Michał BUKOWSKI, Izabella ANTONIUK, and Jarosław KUREK
- e147924 **A hybrid model of heuristic algorithm and gradient descent to optimize neural networks**
Amer MIRKHAN and Numan ÇELEBI
- e147340 **A deep learning method for hard-hat-wearing detection based on head center localization**
Bartosz WÓJCIK, Mateusz ŻARSKI, Kamil KSIĄŻEK, Jarosław A. MISZCZAK, and Mirosław J. SKIBNIEWSKI

Civil Engineering

- e146617 **S-model for project cost management in value engineering for construction companies**
Yang YANG, Wanxin XIAO, Margarita LYSHENKO, and Yang ZHANG
- e147341 **Preliminary analysis of catenoid chimney cooling towers**
Maciej WIŚNIEWSKI, Ryszard WALENTYŃSKI, and Dawid CORNIK
- e147347 **Comparison of the effects of anthropogenic seismic events and natural earthquakes on buried infrastructure network components**
Janusz RUSEK, Leszek SŁOWIK and Krzysztof TAJDUŚ

Control, Robotics and Informatics

- e147342 **Transformations of the matrices of linear systems to their canonical form with desired eigenvalues**
Tadeusz KACZOREK
- e147923 **An autonomous system for identifying and tracking characters using neural networks**
Sebastian SŁOMIŃSKI and Magdalena SOBASZEK

Electronics, Telecommunication and Optoelectronics

- e147915 **Influence of replacing discharge lamps with LED sources in outdoor lighting installations on astronomical observations**
Przemysław TABAKA and Sylwester KOŁOMANSKI
- e147916 **Energy efficiency indicators in road lighting: critical evaluation in a case study**
Sophia HEREDIA, Oscar Ulises PRECIADO, Alberto José CABELLO, and Eduardo Roberto MANZANO

Material Science and Nanotechnology

- e147343 **Polyurethane shape memory polymer: structure characterization and estimation of energy storage and dissipation during the tension process**
Maria STASZCZAK, Arkadiusz GRADYS, Karol GOLASIŃSKI, and Elżbieta Alicja PIECZYSKA

Mechanical and Aeronautical Engineering, Thermodynamics

- e147918 **Kinovea analysis of high-speed video recording to determine kinematics of double pendulum in the long time scale**
Jerzy WOJEWODA