

Casimir Pulaski Radom University



**Journal of Automation,
Electronics
and Electrical Engineering**

**Volume 5
No. 2**

Radom 2023

Reviewers

Prof. Jacek Paś

Prof. Adam Rosiński

Editorial Committee Contact

**Journal of Automation, Electronics and Electrical Engineering
JAEEE**

**Casimir Pulaski Radom University
Faculty of Transport, Electrical Engineering and Computer Science
Malczewskiego 29, 26-600 Radom, Poland
email: jaeed@uthrad.pl
www.jaeed.uniwersytetradom.pl**

ISSN 2658-2058

Copyright@2023 by Publishing House Casimir Pulaski Radom University

All rights reserved. No part of this publication may be modified, reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without permission in writing from publisher.

Journal of Automation, Electronics and Electrical Engineering Journal

JAEEE

Scientific and Editorial Board

Prof. Zbigniew Łukasik - Chairman of Scientific Board

Casimir Pulaski Radom University, Poland

Prof. Mirosław Luft - Editor_in_Chief

Casimir Pulaski Radom University, Poland, Poland

Prof. Miroslav Gutten - The University of Žilina, Slovakia

Prof. Daniel Korenčiak - The University of Žilina, Slovakia

Prof. Andrzej Lewiński - Casimir Pulaski Radom University, Poland

Prof. Mareks Mezitis - Transport Academy, Latvia

Prof. Andrzej Wac-Włodarczyk - Lublin University of Technology, Poland

Prof. Waldemar Wójcik - Lublin University of Technology, Poland

Prof. Tadeusz Kaczorek - Białystok University of Technology, Poland

Prof. Krzysztof Kluszczyński - Tadeusz Kościuszko University of Technology, Poland

Prof. Józef Lisowski - The Gdynia Maritime University, Poland

Prof. Erwin Smet - The University of Antwerp, Belgium

Prof. Aleš Janota - The University of Žilina, Slovakia

Science Secretary

Daniel Pietruszczak, BEng, PhD - Casimir Pulaski Radom University, Poland

Layout Design

Prof. Mariusz Dański - Casimir Pulaski Radom University, Poland

Computer Formatting, Website Suport

Wojciech Chamela, BEng, MSc - Casimir Pulaski Radom University, Poland

Publishing House
Casimir Pulaski Radom University
Faculty of Transport, Electrical Engineering and Computer Science
Malczewskiego 29, 26-600 Radom, Poland
email: wydawnictwo@uthrad.pl

Printing and binding:
Printing Department of the Casimir Pulaski Radom University, Poland

Contents

Rafał BURDZIK Paweł SŁOWIŃSKI	Independent method for the identification of driving train as an alternative to critical rail infrastructure monitoring	7
Michał MAZUR	Analysis of methods for reducing the number of false alarms in video-based fire detection systems	15
Sebastian TATKO	The concept of a mobile system for detection fire phenomena based on convolutional neural networks	23