

Casimir Pulaski Radom University



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

**Volume 7
No. 4**

Radom 2025

Reviewers

prof. Anatoliy Sachenko - Casimir Pulaski Radom University, Poland
prof. Piotr Bojarczak - Casimir Pulaski Radom University, Poland
prof. Andrzej Kochan - Warsaw University of Technology, Poland
prof. Mieczysław Kornaszewski - Casimir Pulaski Radom University, Poland
prof. Bohdan Rusyn - Casimir Pulaski Radom University, Poland
prof. Marcin Chrzan - Casimir Pulaski Radom University, Poland

Editorial Committee Contact

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

Casimir Pulaski Radom University

Faculty of Transport, Electrical Engineering and Computer Science

Malczewskiego 29, 26-600 Radom, Poland

email: jaeed.eds@urad.edu.pl

www.jaeed.uniwersytetradom.pl

ISSN 2658-2058

Copyright©2025 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. Waldemar Nowakowski - Editor in Chief

Casimir Pulaski Radom University, Poland

prof. Alexander Grakovski - Transport and Telecommunication Institute, Latvia

prof. Miroslav Gutten - University of Žilina, Slovakia

prof. Aleš Janota - University of Žilina, Slovakia

prof. Tadeusz Kaczorek - Bialystok University of Technology, Poland

prof. Daniel Korenčiak - University of Žilina, Slovakia

prof. Krzysztof Kluszczyński - Cracow University of Technology, Poland

prof. Józef Lisowski - Gdynia Maritime University, Poland

prof. Erwin Smet - University of Antwerp, Belgium

prof. Mareks Mezitis - Transport Academy, Latvia

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

prof. Waldemar Wójcik - Lublin University of Technology, Poland

prof. Jacek Kozyra - Casimir Pulaski Radom University, Poland

prof. Anatoliy Sachenko - Casimir Pulaski Radom University, Poland

prof. Bohdan Rusyn - Casimir Pulaski Radom University, Poland

Science Secretary

Radosław Cioć, PhD Eng. - 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@urad.edu.pl

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

Contents

Cezary WANKO Roman PNIEWSKI	Application of methods for determining the reliability of microprocessors in traffic control devices	7
Cezary WANKO	ETCS/ERTMS – a unified railway traffic control system affecting railway line capacity	23
Waldemar NOWAKOWSKI Piotr BOJARCZAK	Simulation of automatic control systems in the Factory I/O platform	37

