



RIGA TECHNICAL
UNIVERSITY

ISSN 2255-9140 print
ISSN 2255-9159 online

Electrical, Control and Communication Engineering

Scientific Journal of
Riga Technical University

Editor-in-Chief Ilya Galkin

2016/11

RTU Press
Riga 2016

Editor-in-Chief

Ilya Galkin (Riga Technical University, Latvia)

Editorial Board

Section Editors

Electrical Machines and Apparatus (EMA) –

Anouar Belahcen (Aalto University, Finland)

Alexey Kolganov (Ivanovo Power State University, Russian Federation)

Electrical Drives, Mechatronics and Robotics (EDR) –

Valeriy Vodovozov (Tallinn University of Technology, Estonia)

Leonids Ribickis (Latvian Academy of Science, Latvia)

Power Electronic Converters (PEC) –

Dmitri Vinnikov (Tallinn University of Technology, Estonia)

Ivars Rankis (Riga Technical University, Latvia)

Power Electronic Technologies (PEL) –

Enrique Romero-Cadaval (University of Extremadura, Spain)

Ilya Galkin (Riga Technical University, Latvia)

Electromagnetic Compatibility (EMC) –

Ryszard Strzelecki (Gdynia Maritime Academy, Poland)

Electrical Materials, Reliability and Diagnostics Electrical Equipment (REL) –

Yury Paerand (Donbas State Technical University, Ukraine)

Electric Power Supply (EPS) –

Enrique Romero-Cadaval (University of Extremadura, Spain)

Control Engineering and IT (CTL) –

Mohammad Pourmahmood Aghababa (Urmia University of Technology, Iran)

Literary Editor

Inga Skuja

Editorial Board Address

Faculty of Power and Electrical Engineering

Riga Technical University

E-mail: ecce@rtu.lv

Phone: +371 67 08 99 18

Fax: +371 67 08 99 41

ISBN 978-9934-10-910-2

Cover picture from: <https://www.shutterstock.com>

Electrical, Control and Communication Engineering is a peer-reviewed scientific journal.

Co-published with **De Gruyter Open.**



Abstracted&Indexed: *Astrophysics Data System (ADS), Baidu Scholar, Celdes, CNKI Scholar (China National Knowledge Infrastructure), CNPIEC, DOAJ, EBSCO (relevant databases), EBSCO Discovery Service, Genamics JournalSeek, Google Scholar, J-Gate, JournalTOCs, KESLI-NDSL (Korean National Discovery for Science Leaders), Naviga (Softweco), Primo Central (ExLibris), ProQuest (relevant databases), ReadCube, ResearchGate, Sherpa/RoMEO, Summon (Serials Solutions/ProQuest), TDOne (TDNet), TEMA Technik und Management, Ulrich's Periodicals Directory/ulrichsweb, WanFang Data, WorldCat (OCLC) and VINITI database.*



Authors contributing to the Open Access titles agree to publish their articles under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by RTU Press, Riga Technical University, 1 Kaļķu iela, Riga, LV-1658, Latvia

Printed by RTU Digitālas Drukas Centrs

Table of Contents

| | |
|--|----|
| <i>V. Nakhodov, A. Baskys, N.-O. Skeie, C. F. Pfeiffer, I. Dmytro</i> Selection Methodology of Energy Consumption Model Based on Data Envelopment Analysis | 5 |
| <i>G. Egamnazarov</i> The Way of Reducing Current Values in Optical Ground Wires at Asymmetrical Faults on Overhead Transmission Lines | 13 |
| <i>G. Zaļeskiš, I. Steiks</i> Alternative Energetics DC Microgrid With Hydrogen Energy Storage System | 21 |
| <i>E. Metlevskis, R. Martavičius, A. Katkevičius, Darius Plonis</i> Influence Coeff of Constructive Parameters of Meander Slow-Wave System with Additional Shields | 27 |
| <i>T. Cuzanauskas, A. Anskaitis</i> TCP Perf in Multi-Polling Game Theory-Based IEEE 802.11 Networks | 33 |
| List of Authors | 41 |
| List of Keywords | 42 |