

---

**No 5**  
**TECHNICAL ELECTRODYNAMICS**  
**2018**

---

Issue DOI: <https://doi.org/10.15407/techned2018.05>

**CONTENTS**

**Title:** [TO THE 85TH ANNIVERSARY of Member of NAS Ukraine A.K. SHYDLOVSKYI](#)  
**Source:** Tekhnichna Elektrodynamika 5: 5–6, 2018

**Subject Categories:** □□□□□□ **Theoretical electrical engineering and electrophysics**

**Title:** [Magnetic field calculation of brushless direct current motor with smooth stator by secondary sources method](#)  
**Authors:** ZHYLTSOV A.V., LYKTEI V.V.  
**Source:** Tekhnichna Elektrodynamika 5: 7–10, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [007](#)

**Title:** [The penetration of nonuniform electromagnetic field of current counter in conducting medium](#)  
**Authors:** VASETSKY Yu. M., DZIUBA K.K. KUCHERIAVA I.M., MAZURENKO I.L.  
**Source:** Tekhnichna Elektrodynamika 5: 11–14, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [011](#)

**Title:** [Investigation of the thin structures induced magnetostatic fields in a three-dimensional space by means of the of the modified boundary elements method development](#)  
**Authors:** RYABENKIY V.M., CHUDAYKIN I.I., TARGUNAKOVA J.D.

**Source:** Tekhnichna Elektrodynamika 5: 15–21, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 015

**Title:** [Influence of the density increasing of close located water micro-inclusions on electrophysical processes in nonlinear solid dielectric](#)

**Authors:** SHCHERBA M.

**Source:** Tekhnichna Elektrodynamika 5: 22–25, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 022

**Subject Categories:** □ □ □ □ □ Conversion of electric energy parameters

**Title:** [Voltage harmonic distortion in autonomous electric power system with an adjustable power line conditioner](#)

**Authors:** ZHUK A.K., ZHUK D.A., KRIVORUCHKO D.V.

**Source:** Tekhnichna Elektrodynamika 5: 26–30, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 026

**Title:** [Research of a bi-directional DC-DC converter of unified inverter module for application in energy accumulation systems](#)

**Authors:** ZHARKIN A.F., PAZIEIEV A.G., NOVSKIY V.A.

**Source:** Tekhnichna Elektrodynamika 5: 31–34, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 031

**Title:** [The use of a geometric approach for three-phase active power line Conditioner](#)

**Authors:** ZHUIKOV V.Y., MIKOLAIETS D.A.

**Source:** Tekhnichna Elektrodynamika 5: 35–38, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 035

**Title:** [Adaptive control system of the frequency converter on the basis of resonant inverter with nonlinear control](#)

**Authors:** PAVLOV G.V., VINNYCHENKO I.L., POKROVSKIY M.V.

**Source:** Tekhnichna Elektrodynamika 5: 39–43, 2018 **DOI:** <https://doi.org/10.15407/technd2018.05> : 039

**Title:** [Current state and development trends of ac voltage converters with transformer-and-switches executive structure](#)

**Authors:** LYPKIVSKYI K.O., MOZHAROVSKYI A.G.

**Source:** Tekhnichna Elektrodynamika 5: 44–51, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [044](#)

**Subject Categories:** □ □ □ □ □ □ **Electromechanical energy conversion**

**Title:** [Simulation of the electric power generation system on the basis of dfig with active filtering capabilities and reactive power compensation](#)

**Authors:** MYKHALSKYI V.M., SOBOLEV V.M., CHOPYK V.V., SHAPOVAL I.A.

**Source:** Tekhnichna Elektrodynamika 5: 52–56, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [052](#)

**Title:** [Concept of experimental research for electrical vehicle electromechanical systems with hybrid energy storages](#)

**Authors:** PERESADA S., KOVBASA S., NIKONENKO Ye., BOZHKO S.

**Source:** Tekhnichna Elektrodynamika 5: 57–60, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [057](#)

**Title:** [Current and voltage stator limitation in three-zone speed control system of motor with permanent magnets using optimal control strategies](#)

**Authors:** TOLOCHKO O.I., BOVKUNOVYCH V.S., BURMELOV O.O.

**Source:** Tekhnichna Elektrodynamika 5: 61–64, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [061](#)

**Title:** [Design of the electric motor with permanent magnets for electric vehicle according the driving cycle](#)

**Authors:** GREBENIKOV V.V., PRIYMAK M.V.

**Source:** Tekhnichna Elektrodynamika 5: 65–68, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [065](#)

**Title:** [Study of changed main flux reactance of squirrel-cage induction motors using field analysis of their starting characteristics](#)

**Authors:** POPOVYCH O.M., GOLOVAN I.V.

**Source:** Tekhnichna Elektrodynamika 5: 69–72, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [069](#)

**Title:** [Influence of cross-current currents on characteristics of induction motors](#)

**Authors:** FINKELSHTEIN V.B., KALYUZHNYI D.N., KOVALOVA Yu.V., GETYA A.N.

**Source:** Tekhnichna Elektrodynamika 5: 73–79, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [073](#)

**Title:** [Speeds and torques relations of the two-motor electric drive with gearless electromechanical differential](#)

**Authors:** STYAZHKIN V.P., TERIAIEV V.I., GAVRYLUK S.I.

**Source:** Tekhnichna Elektrodynamika 5: 80–83, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [080](#)

**Subject Categories:** □ □ □ □ □ □ **Electric power systems and installations**

**Title:** [High speed protection for series compensated parallel line](#)

**Authors:** PIERZ P., ROSOŁOWSKI Eu., IZYKOWSKI Ja.

**Source:** Tekhnichna Elektrodynamika 5: 84–87, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [084](#)

**Title:** [The overhead line voltage stabilization to increase the efficiency of the DC electric rail traction system](#)

**Authors:** TUGAY D.V., ZHEMEROV G.G.

**Source:** Tekhnichna Elektrodynamika 5: 88–91, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [088](#)

**Title:** [Multifunctional converter for single-phase combined power supply systems for local objects with a photovoltaic solar battery](#)

**Authors:** SHAVELKIN O., SHVEDCHYKOVA I.

**Source:** Tekhnichna Elektrodynamika 5: 92–95, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05>

[018.05](#): [092](#)

**Title:** [Application of gsm technology for identification of phase-to-ground faults in electric networks with isolated neutral and pin-type isolation](#)

**Authors:** BEZRUCHKO V.M., BUINYI R.O., STROGII A.Y., TKACH V.I.

**Source:** Tekhnichna Elektrodynamika 5: 96–99, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [096](#)

**Subject Categories:** □□□□□□ **Electrotechnological complexes and systems**

**Title:** [A simplified calculation of the strength of the magnetic field over the middle of the gap of a double-pole magnetic iron separator](#)

**Authors:** ZAGIRNYAK M.

**Source:** Tekhnichna Elektrodynamika 5: 100–103, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [100](#)

**Title:** [Aspects of technological objects emulation at a functional testing of electromechanical systems](#)

**Authors:** NOZHENKO V.Y., STAROSTIN S.S.

**Source:** Tekhnichna Elektrodynamika 5: 104–107, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [104](#)

**Title:** [Numerical modeling of multiphysical processes for electron-beam scull melting of titanium](#)

**Authors:** GORYSLAVETS Y.M., LADOKHIN S.V., GLUKHENKYI O.I., LAPCHUK T.V., BONDAR O.I., DROZD E.O.

**Source:** Tekhnichna Elektrodynamika 5: 108–111, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [108](#)

**Title:** [Pulse power supply for microresistance welding with the link of power regulation in continuous mode](#)

**Authors:** VERBYTSKYI Ye.V., BONDARENKO O.F., BONDARENKO Yu.V., DIDENKO V.O.

**Source:** Tekhnichna Elektrodynamika 5: 112–115, 2018 **DOI:** <https://doi.org/10.15407/techned2018.05> : [112](#)

**Subject Categories:** □ □ □ □ □ Information-measuring systems in power engineering

**Title:** [Use of autonomous measuring systems for diagnosing of electrical equipment with regard to its operating modes](#)

**Authors:** GERTSYK S.M., GYZHKO Y.I., ZVARICH V.M., MYSLOVYCH M.V., OSTAPCHUK L.B., SYSAK R.M.

**Source:** Tekhnichna Elektrodynamika 5: 116–120, 2018 **DOI:** <https://doi.org/10.15407/tehd2018.05> : [116](#)

**Institute of Electrodynamics, 2018**