

---

□ 4

**TECHNICAL ELECTRODYNAMICS  
2014**

---

**CONTENTS**

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

**Title:** [About Boundary Conditions for Electric Field Strenght on Surface of Moving Conductive Body](#)

**Authors:** MIKHAILOV V.M.

**Source:** Tekhnichna Elektrodynamika 4: 5–7, 2014

**Title:** [Modeling of the Static Geomagnetic Field Indoor Dwelling Houses](#)

**Authors:** ROZOV V.Yu., LEVINA S.V.

**Source:** Tekhnichna Elektrodynamika 4: 8–10, 2014

**Title:** [Alfa-beta Transformation Approach for the Active Shielding of Flat Power Line](#)

**Authors:** GRINCHENKO V.S.

**Source:** Tekhnichna Elektrodynamika 4: 11–13, 2014

**Title:** [Method of Digital Determination of a Zero Phase-sequence Voltage of Three-phase System of Voltages](#)

**Authors:** MAKOV D.K., SHCHERBA A.A.

**Source:** Tekhnichna Elektrodynamika 4: 14–16, 2014

**Title:** [Dependence of Electric Field Disturbances in Dielectrics on the Dispersion of Closely Spaced Water Micro-inclusions](#)

**Authors:** SHCHERBA M.A., ROZISKULOV S.S., VASILYEVA O.V.

**Source:** Tekhnichna Elektrodynamika 4: 17–19, 2014

**Title:** [Features of Parametric Synthesis of the Circuit of Capacitor Discharge on Electro-spark Load with Nonlinear Resistance](#)

**Authors:** SUPRUNOVSKA N.I.

**Source:** Tekhnichna Elektrodynamika 4: 20–22, 2014

**Title:** [Application of Methods of Electrotechniques for Calculation of Heating Regimes of Capacitive Solar Heater](#)

**Authors:** ERMURATSKII V., OLESCHUK V.

**Source:** Tekhnichna Elektrodynamika 4: 23–25, 2014

**Title:** [Mathematic Modeling of Periodic Processes in Nonlinear Electromagnetic Circuits](#)

**Authors:** DOBUSHOVSKA I.A.

**Source:** Tekhnichna Elektrodynamika 4: 26–28, 2014

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

**Title:** [Perspectives of RES Development in Poland up to 2020](#)

**Authors:** DOLEGA W.

**Source:** Tekhnichna Elektrodynamika 4: 29–31, 2014

**Title:** [Use of Least Action Principle as a Mechanism of Natural Optimization for SMART GRID Technologies](#)

**Authors:** LEZHNYUK P.D., KULYK V.V.

**Source:** Tekhnichna Elektrodynamika 4: 32–34, 2014

**Title:** [Real-time Identification of Low-frequency Oscillations of Power System's Mode Parameters](#)

**Authors:** BUTKEVYCH O.F., CHYZHEVSKYI V.V.

**Source:** Tekhnichna Elektrodynamika 4: 35–37, 2014

**Title:** [Phase-shifting Transformer Devices with Forced Thyristor Commutation for Transversal and Longitudinal-transversal Voltage Regulation](#)

**Authors:** ZHARKIN A.F., NOVSKYI V.O., MALAKHATKA D.O.

**Source:** Tekhnichna Elektrodynamika 4: 38–40, 2014

**Title:** [Methodological Aspects of Research of the Frequency Control Considering the Variable Generation Power of Solar Power Plants](#)

**Authors:** STELIUK A.O.

**Source:** Tekhnichna Elektrodynamika 4: 41–43, 2014

**Title:** [Analysis of Impact PQ Characteristics of Synchronous Generators on Total Transfer Capacity of Interfaces in IPS of Ukraine](#)

**Authors:** LUKIANENKO L.

**Source:** Tekhnichna Elektrodynamika 4: 44–46, 2014

**Title:** [Recurent Expression for Reliability Indicators of Compound Electropower Systems](#)

**Authors:** SYDOR A.R., TESLYUK V.M., DENYSYUK P.Yu.

**Source:** Tekhnichna Elektrodynamika 4: 47–49, 2014

**Title:** [An Adaptive Emergency Control Automatics for Maintenance of Power System Steady State Stability](#)

**Authors:** STOJNI B.S., AVRAMENKO V.M., SOPEL M.F., PRIKHNO V.L.

**Source:** Tekhnichna Elektrodynamika 4: 50–52, 2014

**Title:** [Definition of Rational Installation Location of Automatic Partitioning Switching Devices in the Distribution Networks with the Voltage of 10 kV](#)

**Authors:** DIKHTYARUK I.V.

**Source:** Tekhnichna Elektrodynamika 4: 53–54, 2014

**Title:** [Energy Losses Analyze in Solar Battery Maximum Power Picking System](#)

**Authors:** ROMASHKO V.Ya., VERBITSKY I.V., KYRYCHIK I.I.

**Source:** Tekhnichna Elektrodynamika 4: 55–57, 2014

**Title:** [Influence of Interwinding Capacitance on Exactness of Work of High-Voltage Current Transformer](#)

**Authors:** VARSKYI G.M.

**Source:** Tekhnichna Elektrodynamika 4: 58–60, 2014

**Title:** [Leakage Inductance Calculation of High-Voltage Transformer Windings by Means of the Software using the Finite Elements Method](#)

**Authors:** BRZHEZITSKY V.O., GARAN Ya.O., DESJATOV O.M.

**Source:** Tekhnichna Elektrodynamika 4: 61–63, 2014

**Title:** [Use of New Principle of Switching Reference Voltages of High-Voltage DAC](#)

**Authors:** TARANOV S.G., TESIK Yu.F., KARASINSKIY O.L., MOROZ R.N.

**Source:** Tekhnichna Elektrodynamika 4: 64–66, 2014

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

**Title:** [The Structure of Chaotic Processes in Voltage Converter](#)

**Authors:** ZHUIKOV V., MATIIKO A.

**Source:** Tekhnichna Elektrodynamika 4: 67–69, 2014

**Title:** [Extension of the Adjustment Range of the Matrix Converter Input Reactive Current Based on SVD](#)

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

**Source:** Tekhnichna Elektrodynamika 4: 70–72, 2014

**Title:** [Design of Control Signals for Three Phase Matrix Converter on the Basis of Double Fourier Series](#)

**Authors:** KOROTYEYEV I.Ye., KLYTTA M.

**Source:** Tekhnichna Elektrodynamika 4: 73–74, 2014

**Title:** [Interval Currents in the Active Power Line Conditioner with Self-Discharge Current of the Battery Compensation](#)

**Authors:** MYKOLAETS D.A., MYKYTIUK V.I.

**Source:** Tekhnichna Elektrodynamika 4: 75–77, 2014

**Title:** [Energy Efficiency Analysis in Power Factor Corrector Under Different Pulse-Width Modulation Modes](#)

**Authors:** STEPENKO S.A.

**Source:** Tekhnichna Elektrodynamika 4: 78–80, 2014

**Title:** [Multilevel Inverter with Amplitude Pulse Width Modulation](#)

**Authors:** TERESHCHENKO T.O., BEZHENAR V.O., BELOSHYTSKYI M.Yu.

**Source:** Tekhnichna Elektrodynamika 4: 81–83, 2014

**Title:** [About the Possibility of Switching Losses Reducing in of Two-Stage DC-DC Converters with Separated Commutation](#)

**Authors:** IVAKHNO V.V., ZAMARUEV V.V., STYSLO B.A.

**Source:** Tekhnichna Elektrodynamika 4: 84–86, 2014

**Title:** [Sliding Mode Control of DC/DC Buck Converter in the Basis of Energy](#)

**Authors:** SKURIATIN YU.V., FOMIN A.I.

**Source:** Tekhnichna Elektrodynamika 4: 87–89, 2014

**Title:** [The Compensator Current Form Determining During the Wind Generator Operation on the Rectified Load](#)

**Authors:** OSYPENKO K.S.

**Source:** Tekhnichna Elektrodynamika 4: 90–92, 2014

**Title:** [Particularities of Technological Set-Up's Supply System for Non-Crucible Electron-Beam Zone Melting](#)

**Authors:** YURCHENKO M.M., SPIRIN V.M., SENKO V.I.

**Source:** Tekhnichna Elektrodynamika 4: 93–95, 2014

**Title:** [Double Fourier Series Using for Calculating Modulating Signals Spectrum](#)

**Authors:** VERBYTSKYI Ye.V.

**Source:** Tekhnichna Elektrodynamika 4: 96–98, 2014

**Title:** [Nonlinearity of Analog to Digital Converter Based on Second Order Sigma-Delta Modulator](#)

**Authors:** SU JUN, KOCHAN R.V., KOCHAN O.V.

**Source:** Tekhnichna Elektrodynamika 4: 99–101, 2014

**Subject Categories:** Electromechanical energy conversion

**Title:** [Selection of Field Orientation in Vector Controlled Induction Motor Drives](#)

**Authors:** PERESADA S.M., KOVBASA S.M., ONANKO A.Yu.

**Source:** Tekhnichna Elektrodynamika 4: 102–104, 2014

**Title:** [Multicriterion Anisotropic Regulators Synthesis by Multimass Electromechanical Systems](#)

**Authors:** KUZNETSOV B.I., NIKITINA T.B., TATARCHENKO M.O., KHOMENKO V.V.

**Source:** Tekhnichna Elektrodynamika 4: 105–107, 2014

**Title:** [Study of the Synchronous Motor's Start-up with the Pulse-width Frequency Converter](#)

**Authors:** SINCHUK O.M., MYKHAILYCHENKO D.A.

**Source:** Tekhnichna Elektrodynamika 4: 108–110, 2014

**Title:** [Definition and Research of Electrical Power Factor of Electromechanical Systems with Induction Motors](#)

**Authors:** POPOVYCH O.M.

**Source:** Tekhnichna Elektrodynamika 4: 111–113, 2014

**Title:** [Mathematical Model of Double-Rotor Magnetolectric System Swinging Movement](#)

**Authors:** FILOMENKO A.A.

**Source:** Tekhnichna Elektrodynamika 4: 114–116, 2014

**Title:** [The Design of Switched Reluctance Motor for the Purpose of Decrease in Size of Pulsations of the Electromagnetic Torque](#)

**Authors:** BIBIK O.V., GREBENIKOV V.V., PRYIMAK M.V., GAMALIYA R.R.

**Source:** Tekhnichna Elektrodynamika 4: 117–119, 2014

**Title:** [Load Testing of Power Frequency Converters Based on the Emulation of Electrical Machines](#)

**Authors:** SERGIENKO H.S., STAROSTIN S.S.

**Source:** Tekhnichna Elektrodynamika 4: 120–122, 2014

**Subject Categories:** Electrotechnological systems

**Title:** [Electromagnetic Stirrer of Liquid Metal with Alternate Action of Traveling and Pulsating Magnetic Fields](#)

**Authors:** GLUKHEN'KIY A.I., GORISLAVETS Yu.M., MAKSIMENKO V.Yu.

**Source:** Tekhnichna Elektrodynamika 4: 123–125, 2014

**Title:** [Synchronous Magneto-electrical Stirrer of Liquid Metal in the Mold of Continuous Casting Machine the Steel](#)

**Authors:** KONDRATENKO I.P., RASHCHEPKIN A.P.

**Source:** Tekhnichna Elektrodynamika 4: 126–128, 2014

**Title:** [Determination of the Optimal Characteristics of High Voltage Electric-Discharge System for Implementation of Technology for Electropulse Synthesis of Nanocarbon](#)

**Authors:** VINNYCHENKO D.V.

**Source:** Tekhnichna Elektrodynamika 4: 129–131, 2014

**Title:** [Regulation of Parameters of Sources of Pulsing and Direct Voltage at Simultaneous Supply of Electrostatic Precipitators](#)

**Authors:** DIORDIYCHUK V.V.

**Source:** Tekhnichna Elektrodynamika 4: 132–134, 2014

**Title:** [The Use of Dynamic Programming for the Problem of the Uniform Use of Wind Plants](#)

**Authors:** MEDYKOVSKIY M.O., TESLYUK V.M., SHUNEVYCH O.B.

**Source:** Tekhnichna Elektrodynamika 4: 135–137, 2014

**Title:** [Electrotechnological System for Monitoring Effects of Optical Range Electromagnetic Fields on Vegetation Biobject](#)

**Authors:** NIKIFOROVA L., KIZIM I., BOGATYREV Yu.

**Source:** Tekhnichna Elektrodynamika 4: 138–140, 2014

**Institute of Electrodynamics, 2014**