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[A new criterion needed to evaluate reliability of digital protective relays](#)

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**Vladimir Gurevich**

2012-01-01

ISSN: 1335-3632 Volume: 63 Issue: 5

... PROTECTIVE RELAYS Vladimir Gurevich There is a wide range of criteria and features for evaluating reliability in engineering; but as many as there are, only one of them...



[MILITARY AND POLITICAL ASPECTS OF ONE OF THE PROBLEMS OF THE MODERN POWER INDUSTRY](#)

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**Vladimir I. Gurevich**

2015-11-01 Electrical Engineering & Electromechanics

ISSN: 2309-3404 Issue: 5 Pages: 69-74

Keywords: High-altitude Electromagnetic Pulse, Intentional Destructive Electromagnetic Impacts, power system, national infrastructure

Full Text Available The problem of Intentional Destructive Electromagnetic Impacts (IDEI) on power systems has become recently more and more actual in connection with two modern trends: the extension of using microelectronics and microprocessor-based devices and systems in electric power industry – on the one hand, and the intensive design of special [Read More...](#)



[THE PROBLEM OF CORRECT CHOICE OF FERRITE BEADS](#)

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**Vladimir I. Gurevich**

2016-05-01 Electrical Engineering & Electromechanics

DOI: 10.20998/2074-272X.2016.2.13 ISSN: 2309-3404 Issue: 2 Pages: 71-73

Keywords: ferrite, filters, electromagnetic pulse

Full Text Available A ferrite bead is a passive electrical element used to suppress high-frequency noise in electric circuits. This is one of the simplest and the cheapest type of filters. Thus, such filters are widely used in electric and electronic apparatus for both domestic and industrial purposes. It would seem that such a wide application of [Read More...](#)



[PROBLEMS IN TESTING DIGITAL PROTECTIVE RELAY FOR IMMUNITY TO INTENTIONAL DESTRUCTIVE ELECTROMAGNETIC IMPACTS. CONTINUATION OF THE THEME](#)

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**Vladimir I. Gurevich**

2015-01-01

ISSN: 2074-272X2309-3404 Issue: 6

Keywords: Electrical engineering. Electronics. Nuclear engineering, digital protective relays, intentional destructive electromagnetic impacts, high-altitude electromagnetic pulse, high power electromagnetic threats, TK1-9971

The article is the continuation of the theme highlighted in the previous article with same title. The new article evaluates the results of digital protective...



[Reliability of microprocessor-based relay protection devices: Myths and reality](#)

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**Gurevich Vladimir**

2009-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE0901167G ISSN: 1451-4869 Volume: 6 Issue: 1 Pages: 167-186

Keywords: microprocessor-based protection devices, relay protection, reliability, AD converter, central processor, watchdog timer

Full Text Available The article examines four basic theses about the ostensibly extremely high reliability of microprocessor-based relay protection (MP touted by supporters of MP. Through detailed analysis based on many references it is shown that the basis of these theses are widespread myths, and actually MP reliability is lower than the reliability [Read More...](#)



[Protecting power equipment against magnetohydrodynamic effects \(MHD of electromagnetic pulses \(EMP\)\)](#)

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*Gurevich Vladimir*

2015-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE1503321G ISSN: 1451-4869 Volume: 12 Issue: 3 Pages: 321-332

Keywords: EMP, magnetohydrodynamic effect, nuclear detonation, E3 component, geomagnetic induced current, GIC

Full Text Available The article is devoted to the effects of geomagnetic-induced currents (GIC on electrical equipment of power systems and analyzes technical measures for protection against such effects. It is noted that the difference between highaltitude nuclear detonation and solar storm GICs forces applying different methods of electrical equipment [Read More...](#)



[Hybrid reed: Solid-state devices are a new generation of protective relays](#)

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*Gurevich Vladimir*

2007-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE0701085G ISSN: 1451-4869 Volume: 4 Issue: 1 Pages: 85-94

Keywords: hybrid relays, reed switch, solid-state device, relay protection, over-current relay

Full Text Available Research and development in the field of electromechanical protective relays has not been conducted for tens of years. Author's approach allows viewing the problem of re-equipment of relay protection in a new way. In the author's opinion combination of reed switches with magnetic circuits and semiconductor elements opens new avenues [Read More...](#)



[Tests of microprocessor-based relay protection devices: Problems and solutions](#)

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*Gurevich Vladimir*

2009-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE0902333G ISSN: 1451-4869 Volume: 6 Issue: 2 Pages: 333-341

Keywords: microprocessor-based protection devices, microprocessor-based relay protection test systems, relay protection

Full Text Available Usually, the operational condition of relay protection devices is checked with specific settings used for the relay operation in a certain network point. In the author's opinion in order to verify the proper operation of complex multifunctional microprocessor-based protection devices (MPD at their inspection, start-up after repairs [Read More...](#)



[Microprocessor protection devices: The present and the future](#)

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Gurevich **Vladimir**

2008-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE0802325G ISSN: 1451-4869 Volume: 5 Issue: 2 Pages: 325-339

Keywords: microprocessor-based protective devices, relay damages, relay protection reliability

Full Text Available Paper presents the analysis of the basic constructive disadvantages of the present day microprocessor-based protective devices (MBR and offers the basic principles for creating a new MBR that can be used in newly constructed devices.



[Susceptibility of modern relay protection: Will protection from cyber attacks help?](#)

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Gurevich **Vladimir**

2014-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE131026019G ISSN: 1451-4869 Volume: 11 Issue: 2 Pages: 233-241

Keywords: relay protection, cyber attack, digital protective relay, intentional electromagnetic destructive impact, cyber security

Full Text Available Modern trends in relay protection (RP based on the substitution of electromechanical protection relays (EMPR by digital protective relays (DPR have resulted in the emergence of an absolutely new problem, which was not known before. This problem is the possibility of an intentional remote destructive impact (IRDI on relay protection [Read More...](#)



[Protection of power transformers against geomagnetically induced currents](#)

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Gurevich **Vladimir**

2011-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE1103333G ISSN: 1451-4869 Volume: 8 Issue: 3 Pages: 333-339

Keywords: solar storm, magnetosphere, geomagnetic induced current, ionosphere, transformer saturation, relay protection

Full Text Available The article examines the problem of saturation and failure of power transformers under geomagnetically induced currents and currents of the E3 component of high-altitude nuclear explosions. It also describes a special protective relay reacting on DC component in the transformer neutral current.



[Peculiarities of the relays intended for operating trip coils of the high-voltage circuit breakers](#) [↗](#)  
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Gurevich **Vladimir**

2007-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE0702223G ISSN: 1451-4869 Volume: 4 Issue: 2 Pages: 223-237

Full Text Available Parameters of the subminiature electromagnetic relays used as output elements in microprocessor relay protection, do not correspond to technical specifications on these relay protection. The reasons of this discrepancy are analyzed. Contradictions and discrepancies of the international standards in this area are considered. It is [Read More...](#)



[New concept of microprocessor protective devices design](#) [↗](#)  
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Gurevich **Vladimir**

2010-01-01 Serbian Journal of Electrical Engineering

DOI: 10.2298/SJEE1001131G ISSN: 1451-4869 Volume: 7 Issue: 1 Pages: 131-139

Keywords: microprocessor protective device, relay protection, protection functions, relay protection reliability, human factor

Full Text Available Transition from electromechanical to digital protective relays is accompanied with serious technical problems. The author offers a new approach in designing the digital relays capable of solving these problems. It is proposed to construct digital relays in the form of standard modules from which it would be possible to assemble [Read More...](#)



[Power supply devices and systems of relay protection](#) [↗](#)  
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Gurevich, **Vladimir**

2013-01-01

Power Supply Devices and Systems of Relay Protection brings relay protection and electrical power engineers a single, concentrated source of information on auxiliary power supply systems and devices. The book also tackles specific problems and solutions of relay protection power supply systems and devices, which are often not dealt with in the [Read More...](#)



[Protection devices and systems for high voltage applications](#) [↗](#)  
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2002-01-01

Protection devices and systems for high voltage applications



[Protection of substation critical equipment against intentional electromagnetic threats](#) 

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Gurevich, **Vladimir**

2017-01-01

Protection of substation critical equipment against intentional electromagnetic threats



[Protection of power transformers against geomagnetically induced currents](#) 

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Gurevich **Vladimir**

2011-01-01

ISSN: 1451-48692217-7183 Volume: 8 Issue: 3

Keywords: ionosphere, geomagnetic induced current, relay protection, Electrical engineering.

Electronics. Nuclear engineering, magnetosphere, transformer saturation, TK1-9971, solar storm

The article examines the problem of saturation and failure of power transformers under geomagnetically induced currents and currents of the E3 component of...




[Electric relays : principles and applications](#) 

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2006-01-01 TIBKAT



[Cyber and electromagnetic threats in modern relay protection](#) 

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