

Arif I Sarwat

List of Publications by Year in descending order

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171
papers

3,722
citations

218677

26
h-index

189892

50
g-index

171
all docs

171
docs citations

171
times ranked

3424
citing authors

#	ARTICLE	IF	CITATIONS
1	A Survey on Low Latency Towards 5G: RAN, Core Network and Caching Solutions. IEEE Communications Surveys and Tutorials, 2018, 20, 3098-3130.	39.4	619
2	A novel multi-time-scale modeling for electric power demand forecasting: From short-term to medium-term horizon. Electric Power Systems Research, 2017, 142, 58-73.	3.6	187
3	Review of Machine Learning Techniques in Wireless Sensor Network Based Precision Agriculture. Journal of the Electrochemical Society, 2020, 167, 037522.	2.9	140
4	Future Challenges and Mitigation Methods for High Photovoltaic Penetration: A Survey. Energies, 2018, 11, 1782.	3.1	116
5	Resilient Control Design for Load Frequency Control System Under False Data Injection Attacks. IEEE Transactions on Industrial Electronics, 2020, 67, 7951-7962.	7.9	113
6	Stochastic Games for Power Grid Protection Against Coordinated Cyber-Physical Attacks. IEEE Transactions on Smart Grid, 2018, 9, 684-694.	9.0	106
7	Overview of technical specifications for grid-connected photovoltaic systems. Energy Conversion and Management, 2017, 152, 312-327.	9.2	72
8	Survey on synchrophasor data quality and cybersecurity challenges, and evaluation of their interdependencies. Journal of Modern Power Systems and Clean Energy, 2019, 7, 449-467.	5.4	69
9	Weather-based interruption prediction in the smart grid utilizing chronological data. Journal of Modern Power Systems and Clean Energy, 2016, 4, 308-315.	5.4	64
10	A comprehensive review of low-voltage-ride-through methods for fixed-speed wind power generators. Renewable and Sustainable Energy Reviews, 2016, 55, 823-839.	16.4	62
11	Single-Stage Three-Phase AC-AC Matrix Converter for Inductive Power Transfer Systems. IEEE Transactions on Industrial Electronics, 2016, 63, 6613-6622.	7.9	60
12	Single-Phase Soft-Switched AC-AC Matrix Converter With Power Controller for Bidirectional Inductive Power Transfer Systems. IEEE Transactions on Industry Applications, 2018, 54, 3760-3770.	4.9	54
13	A Survey on Cybersecurity Challenges, Detection, and Mitigation Techniques for the Smart Grid. Energies, 2021, 14, 5894.	3.1	52
14	Optimal Smart Inverters Volt-VAR Curve Selection with a Multi-Objective Volt-VAR Optimization using Evolutionary Algorithm Approach. , 2018, , .		49
15	Foreign Object Detection in Inductive Charging Systems Based on Primary Side Measurements. IEEE Transactions on Industry Applications, 2019, 55, 6466-6475.	4.9	44
16	Reduction of Stray Loss in Power Transformers Using Horizontal Magnetic Wall Shunts. IEEE Transactions on Magnetics, 2017, 53, 1-7.	2.1	43
17	Prediction of Li-Ion Battery State of Charge Using Multilayer Perceptron and Long Short-Term Memory Models. , 2019, , .		42
18	Online power quality disturbance detection by support vector machine in smart meter. Journal of Modern Power Systems and Clean Energy, 2019, 7, 1328-1339.	5.4	41

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19	Securing Metering Infrastructure of Smart Grid: A Machine Learning and Localization Based Key Management Approach. <i>Energies</i> , 2016, 9, 691.	3.1	40
20	A review of cathode and anode materials for lithium-ion batteries. , 2016, , .		40
21	A New Topology of Higher Order Power Filter for Single-Phase Grid-Tied Voltage-Source Inverters. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 7511-7522.	7.9	39
22	A Survey of Protocol-Level Challenges and Solutions for Distributed Energy Resource Cyber-Physical Security. <i>Energies</i> , 2018, 11, 2360.	3.1	37
23	A Power-Frequency Controller With Resonance Frequency Tracking Capability for Inductive Power Transfer Systems. <i>IEEE Transactions on Industry Applications</i> , 2018, 54, 1773-1783.	4.9	34
24	A survey on security assessment of metering infrastructure in Smart Grid systems. , 2015, , .		33
25	Multi-level optimization approach for directly coupled photovoltaic-electrolyser system. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 11884-11894.	7.1	31
26	Self-Tuning Variable Frequency Controller for Inductive Electric Vehicle Charging With Multiple Power Levels. <i>IEEE Transactions on Transportation Electrification</i> , 2017, 3, 488-495.	7.8	30
27	Optimal design of hybrid wind/photovoltaic electrolyzer for maximum hydrogen production using imperialist competitive algorithm. <i>Journal of Modern Power Systems and Clean Energy</i> , 2018, 6, 40-49.	5.4	30
28	A Survey on Modality Characteristics, Performance Evaluation Metrics, and Security for Traditional and Wearable Biometric Systems. <i>ACM Computing Surveys</i> , 2020, 52, 1-36.	23.0	30
29	Unified Univariate-Neural Network Models for Lithium-Ion Battery State-of-Charge Forecasting Using Minimized Akaike Information Criterion Algorithm. <i>IEEE Access</i> , 2021, 9, 39154-39170.	4.2	29
30	Renewable energy supported microgrid in rural electrification of Sub-Saharan Africa. , 2017, , .		28
31	Artificial neural network based Duty Cycle estimation for maximum Power Point tracking in Photovoltaic systems. , 2015, , .		27
32	Multiphysics and Multiobjective Design Optimization of High-Frequency Transformers for Solid-State Transformer Applications. <i>IEEE Transactions on Industry Applications</i> , 2021, 57, 1014-1023.	4.9	27
33	Overview of Technical Specifications for Grid-Connected Microgrid Battery Energy Storage Systems. <i>IEEE Access</i> , 2021, 9, 163554-163593.	4.2	27
34	Flicker Estimation Associated with PV Integrated Distribution Network. , 2018, , .		26
35	Evaluation of optimal dual axis concentrated photovoltaic thermal system with active ventilation using Frog Leap algorithm. <i>Energy Conversion and Management</i> , 2015, 105, 782-790.	9.2	25
36	Multi-armed bandit for LTE-U and WiFi coexistence in unlicensed bands. , 2016, , .		25

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37	A review on cyber security issues and mitigation methods in smart grid systems. , 2017, , .		25
38	A Multi-Objective Optimization Technique for Volt-Var Control with High PV Penetration using Genetic Algorithm. , 2018, , .		25
39	Review of Cyber-Physical Attacks and Counter Defense Mechanisms for Advanced Metering Infrastructure in Smart Grid. , 2018, , .		24
40	FACTS Approach to Address Cybersecurity Issues in Electric Vehicle Battery Systems. , 2019, , .		24
41	IoT Sensor Network Approach for Smart Farming: An Application in Food, Energy and Water System. , 2018, , .		23
42	Frequency band for HAN and NAN communication in Smart Grid. , 2014, , .		22
43	Design and Analysis of a Higher Order Power Filter for Grid-Connected Renewable Energy Systems. IEEE Transactions on Industry Applications, 2017, 53, 4149-4161.	4.9	22
44	High-Penetration Grid-Tied Photovoltaics: Analysis of Power Quality and Feeder Voltage Profile. IEEE Industry Applications Magazine, 2019, 25, 83-94.	0.4	22
45	Reverse Power Flow Protection in Grid Connected PV Systems. , 2018, , .		21
46	Life cycle prediction of Sealed Lead Acid batteries based on a Weibull model. Journal of Energy Storage, 2018, 18, 467-475.	8.1	21
47	RSS based loop-free compass routing protocol for data communication in advanced metering infrastructure (AMI) of Smart Grid. , 2014, , .		20
48	A distributed intelligent framework for electricity theft detection using benford's law and stackelberg game. , 2017, , .		20
49	Power quality and voltage profile analyses of high penetration grid-tied photovoltaics: A case study. , 2017, , .		20
50	False Data Injection Impact Analysis In AI-Based Smart Grid. , 2021, , .		20
51	Case study on the effects of partial solar eclipse on distributed PV systems and management areas. IET Smart Grid, 2019, 2, 477-490.	2.2	19
52	Smart Grid reliability assessment utilizing Boolean Driven Markov Process and variable weather conditions. , 2015, , .		18
53	Finite element based design optimization of magnetic structures for roadway inductive power transfer systems. , 2016, , .		18
54	LAA-based LTE and ZigBee coexistence for unlicensed-band smart grid communications. , 2016, , .		18

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55	Reactive Power Compensation Game Under Prospect-Theoretic Framing Effects. IEEE Transactions on Smart Grid, 2018, 9, 4181-4193.	9.0	18
56	A combinatorial approach for addressing intermittency and providing inertial response in a grid-connected photovoltaic system. , 2016, , .		17
57	Pareto optimization of circular power pads for contactless electric vehicle battery charger. , 2016, , .		17
58	Time-Dependent Multi-Physics Analysis of Inductive Power Transfer Systems. , 2018, , .		17
59	CBRS Spectrum Sharing between LTE-U and WiFi: A Multiarmed Bandit Approach. Mobile Information Systems, 2016, 2016, 1-12.	0.6	16
60	Roadmap to prepare distribution grid-tied photovoltaic site data for performance monitoring. , 2017, , .		16
61	A Model Predictive Power Control Approach for a Three-Phase Single-Stage Grid-Tied PV Module-Integrated Converter. IEEE Transactions on Industry Applications, 2018, 54, 1823-1831.	4.9	16
62	Multiobjective optimization in combinatorial wind farms system integration and resistive SFCL using analytical hierarchy process. Renewable Energy, 2016, 94, 366-382.	8.9	15
63	A Location Based Key Management System for Advanced Metering Infrastructure of Smart Grid. , 2016, , .		15
64	Toward a Smart City of Interdependent Critical Infrastructure Networks. Studies in Systems, Decision and Control, 2018, , 21-45.	1.0	15
65	A Multidimensional Holistic Framework for the Security of Distributed Energy and Control Systems. IEEE Systems Journal, 2020, 14, 17-27.	4.6	15
66	Adapting big data standards, maturity models to smart grid distributed generation: critical review. IET Smart Grid, 2020, 3, 508-519.	2.2	15
67	Defending mechanisms for protecting power systems against intelligent attacks. , 2015, , .		14
68	A Sensorless Conductive Foreign Object Detection for Inductive Electric Vehicle Charging Systems Based on Resonance Frequency Deviation. , 2018, , .		14
69	Fleet Aggregation of Photovoltaic Systems: A Survey and Case Study. , 2019, , .		14
70	Study of Smart Grid Protection Challenges with High Photovoltaic Penetration. , 2019, , .		14
71	Optimal Design of IPT Bipolar Power Pad for Roadway-Powered EV Charging Systems. Canadian Journal of Electrical and Computer Engineering, 2021, 44, 350-355.	2.0	14
72	Optimal Reliability-based Placement of Plug-In Electric Vehicles in Smart Distribution Network. International Journal of Energy Science, 2014, 4, 43.	0.6	14

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73	Multi-layer Perceptron based Photovoltaic Forecasting for Rooftop PV Applications in Smart Grid. , 2020, , .		14
74	Risk assessment of coordinated cyber-physical attacks against power grids: A stochastic game approach. , 2016, , .		13
75	A Multi-Step Predictive Model to Estimate Li-Ion State of Charge for Higher C-Rates. , 2019, , .		13
76	Hybrid data-driven model method to improve generation estimation and performance assessment of grid-tied PV: a case study. IET Renewable Power Generation, 2019, 13, 2480-2490.	3.1	13
77	Physics-Based Design Optimization of High Frequency Transformers for Solid State Transformer Applications. , 2019, , .		13
78	Determination of the minimum-variance unbiased estimator for DC power-flow estimation. , 2014, , .		12
79	A Generic Framework for EEG-Based Biometric Authentication. , 2015, , .		12
80	Optimal Operation of Combined Photovoltaic Electrolyzer Systems. Energies, 2016, 9, 332.	3.1	12
81	Vulnerabilities in two-area Automatic Generation Control systems under cyberattack. , 2016, , .		12
82	An algorithm for fast calculation of short circuit forces in high current busbars of electric arc furnace transformers based on method of images. Electric Power Systems Research, 2016, 136, 173-180.	3.6	12
83	A Novel Module Independent Straight Line-Based Fast Maximum Power Point Tracking Algorithm for Photovoltaic Systems. Energies, 2020, 13, 3233.	3.1	12
84	Virtual Inertia-Based Multipower Level Controller for Inductive Electric Vehicle Charging Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 7369-7382.	5.4	12
85	Performance Analysis of Commercial Passive Balancing Battery Management System Operation Using a Hardware-in-the-Loop Testbed. Energies, 2021, 14, 8037.	3.1	12
86	A gossip algorithm based clock synchronization scheme for smart grid applications. , 2017, , .		11
87	A Tri-Modular Human-on-the-Loop Framework for Intelligent Smart Grid Cyber-Attack Visualization. , 2018, , .		11
88	Trends and Future Directions of Research for Smart Grid IoT Sensor Networks. , 2018, , 45-61.		11
89	Battery Module Performance Analysis under Varying Interconnection Topology for Electric Vehicles. , 2019, , .		11
90	Investigation of False Data Injection Attacks on Smart Inverter Settings. , 2020, , .		11

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91	Combined Economic and Emission Dispatch Incorporating Renewable Energy Sources and Plug-In Hybrid Electric Vehicles. International Journal of Energy Science, 2014, 4, 60.	0.6	11
92	Algorithmic Formulation for Network Resilience Enhancement by Optimal DER Hosting and Placement. IEEE Access, 2022, 10, 23477-23488.	4.2	11
93	Bidirectional AC/DC Converter Topologies: A Review. , 2019, , .		10
94	Synthesizing Energy Consumption Data Using a Mixture Density Network Integrated with Long Short Term Memory. , 2019, , .		9
95	Detection of False Data Injection of PV Production. , 2021, , .		9
96	Simulation-Based Analysis of Equalization Algorithms on Active Balancing Battery Topologies for Electric Vehicles. Advances in Intelligent Systems and Computing, 2020, , 708-728.	0.6	9
97	Particle Swarm Optimization-based PID Controller Design for DC-DC Buck Converter. , 2021, , .		9
98	Analysis of Carbon Tax as an Incentive Toward Building Sustainable Grid with Renewable Energy Utilization. , 2015, , .		8
99	Model predictive power control approach for three-phase single-stage grid-tied PV module-integrated converter. , 2016, , .		8
100	Performance evaluation of optimal photovoltaic-electrolyzer system with the purpose of maximum Hydrogen storage. , 2016, , .		8
101	A Three-Phase AC-AC Matrix Converter with Simplified Bidirectional Power Control for Inductive Power Transfer Systems. , 2018, , .		8
102	LTE and Wi-Fi Coexistence in Unlicensed Spectrum with Application to Smart Grid: A Review. , 2018, , .		8
103	Virtual Inertia Control of Inductive Electric Charging System Using a Power Transfer Controller. , 2019, , .		8
104	Impact Analysis of Cyber Attacks on Smart Grid: A Review and Case Study. Energy, Environment, and Sustainability, 2021, , 31-51.	1.0	8
105	Evaluation of Missing Data Imputation Methods for an Enhanced Distributed PV Generation Prediction. Advances in Intelligent Systems and Computing, 2020, , 590-609.	0.6	8
106	A Spectrum Sharing based Metering Infrastructure for Smart Grid Utilizing LTE and WiFi. Advances in Science, Technology and Engineering Systems, 2019, 4, 70-77.	0.5	8
107	Active/Reactive Power Control of Three Phase Grid Connected Current Source Boost Inverter Using Particle Swarm Optimization. Advances in Intelligent Systems and Computing, 2015, , 141-146.	0.6	7
108	A self-tuning variable frequency control for multi-level contactless Electric Vehicle charger. , 2016, , .		7

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109	A single-stage three-phase AC-AC converter for inductive power transfer systems. , 2016, , .		7
110	An efficient MQTT framework for control and protection of networked cyber-physical systems. , 2017, , .		7
111	A Study of EV BMS Cyber Security Based on Neural Network SOC Prediction. , 2018, , .		7
112	Optimal Volt-VAR and Volt-Watt Droop Settings of Smart Inverters. , 2021, , .		7
113	Optimal analysis of resistive superconducting fault current limiters applied to a variable speed wind turbine system. , 2015, , .		6
114	LAA-LTE and WiFi based smart grid metering infrastructure in 3.5 GHz band. , 2017, , .		6
115	Self-tuned single-phase AC-AC converter for bidirectional inductive power transfer systems. , 2017, , .		6
116	A Tri-Modular Framework to Minimize Smart Grid Cyber-Attack Cognitive Gap in Utility Control Centers. , 2018, , .		6
117	Multi-Level Power Controller Design for Dynamic Wireless Electric Vehicle Charging Systems. , 2020, , .		6
118	A Survey of Machine Learning-based Cyber-physical Attack Generation, Detection, and Mitigation in Smart-Grid. , 2021, , .		6
119	Fast Charging Li-Ion Battery Capacity Fade Prognostic Modeling Using Correlated Parameters' Decomposition and Recurrent Wavelet Neural Network. , 2021, , .		6
120	Time-delay analysis on grid-connected three-phase current source inverter based on SVPWM switching pattern. , 2014, , .		5
121	Reliability assessment of access point of advanced metering infrastructure based on Bellcore standards (Telecordia). , 2015, , .		5
122	Soft-switching self-tuning H-bridge converter for inductive power transfer systems. , 2017, , .		5
123	A Review on Control Strategies for Integration of Electric Vehicles with Power Systems. , 2018, , .		5
124	A Novel Technique for Discrimination of Foreign Object from Misalignment in Wireless Charging Systems. , 2019, , .		5
125	Smart Inverters' Functionalities and their Impacts on Distribution Feeders at High Photovoltaic Penetration. , 2021, , .		5
126	Pareto Optimal Smart Inverter Curve Selection for High Photovoltaic Penetration. , 2021, , .		5

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127	Voltage-Controlled Series Resonant DC-DC Converter for Solid State Transformer Applications. , 2021, , .		5
128	Security Breach Possibility with RSS-Based Localization of Smart Meters Incorporating Maximum Likelihood Estimator. Advances in Intelligent Systems and Computing, 2015, , 133-139.	0.6	4
129	A modified higher order power filter for grid-connected renewable energy systems. , 2016, , .		4
130	Long term reliability analysis of components of photovoltaic system based on Markov process. , 2016, , .		4
131	Modeling discharge characteristics for predicting battery remaining life. , 2017, , .		4
132	An ARIMA-NARX Model to Predict Li-Ion State of Charge for Unknown Charge/Discharge Rates. , 2019, , .		4
133	Comparison Analysis of Bipolar and Double D-shape Configurations in Inductive Power Transfer Electric Vehicle Chargers. , 2021, , .		4
134	A simplified power control approach with reliable axis decoupling capability for three-phase current source inverter. , 2016, , .		3
135	An intelligence-based state of charge prediction for VRLA batteries. , 2017, , .		3
136	Sensorless electric vehicle detection in inductive charging stations using self-tuning controllers. , 2017, , .		3
137	Cluster-based Module to Manage Smart Grid Data for an Enhanced Situation Awareness: A Case Study. , 2019, , .		3
138	Cyber Physical Systems Applications with a Case Study of Intelligent Dispatch of PV. , 2021, , .		3
139	Investigation of Cell Voltage Buffer Manipulation Attack in a Battery Management System using Unsupervised Learning Technique. , 2021, , .		3
140	Food, Energy and Water (FEW) Nexus Modeling Framework. Advances in Intelligent Systems and Computing, 2020, , 346-364.	0.6	3
141	PLUG-IN ELECTRIC VEHICLE OWNER BEHAVIOUR STUDY USING FUZZY SYSTEMS. International Journal of Power and Energy Systems, 2015, 35, .	0.2	3
142	A Multi-Objective Voltage Optimization Technique in Distribution Feeders with High Photovoltaic Penetration. Advances in Science, Technology and Engineering Systems, 2019, 4, 377-385.	0.5	3
143	Future Directions to the Application of Distributed Fog Computing in Smart Grid Systems. Advances in Computer and Electrical Engineering Book Series, 0, , 162-195.	0.3	3
144	Future Directions to the Application of Distributed Fog Computing in Smart Grid Systems. , 2019, , 2186-2212.		3

#	ARTICLE	IF	CITATIONS
145	Development of a Mixed Inductive and Capacitive Wireless Power Transfer to Improve Misalignment Performance for Charging Electric Vehicles. , 2022, , .		3
146	Asynchronous interconnection of large-scale photovoltaic plants: site selection considerations. International Journal of Sustainable Energy, 2014, 33, 273-283.	2.4	2
147	Prioritized coordinated reactive power control of wind turbin involving STATCOM using multi-objective optimization. , 2016, , .		2
148	Evaluation of power transformer loses measurements methods under nonlinear load conditions. , 2016, , .		2
149	Effective magnetic shielding in electric arc furnace transformers using interphase wall shunts. , 2017, , .		2
150	Design and Implementation of Estimating Algorithm for Foreign Object Location in Wireless Charging EV Systems. , 2020, , .		2
151	A Binary Search Algorithm based Optimal Sizing of Photovoltaic and Energy Storage Systems. , 2021, , .		2
152	Fuzzy Decision Making Assisted Model Predictive Direct Power Controller for a Grid-Interlinking Converter of a Battery Energy Storage System. , 2021, , .		2
153	Step-size Optimization of New Straight Line approximation-based MPPT Algorithm for Photovoltaic Systems. , 2021, , .		2
154	Parasitic Parameter Analysis of High Frequency Transformer for Series Resonant Converter with Experimental Validation. , 2021, , .		2
155	AC-AC Matrix Converter Using Lookup-Based PWM for Inductive Power Transfer Systems. , 2021, , .		2
156	A Downsizing Strategy for Combinatorial PMSG Based Wind Turbine and Micro-SMES System Applied in Standalone DC Microgrid. International Journal of Energy Science, 2014, 4, 50.	0.6	2
157	Soft-switching, Self-tuning and Optimization Technique for Solid State Transformers Based on Direct AC-AC Matrix Converter Topology. , 2020, , .		2
158	PMU placement considering data uncertainty and redundancy. , 2015, , .		1
159	Power Quality Monitoring of a 1.1 MW Photovoltaic Power Plant. , 2018, , .		1
160	Real-Time Control of a Doubly Fed Induction Machine for Variable Speed Constant Frequency Wind Power System Through Laboratory Test Rig. , 2018, , .		1
161	Photovoltaic Fleet Aggregation and High Penetration: A Feeder Test Case. , 2019, , .		1
162	A lowâ€œcomplexity FSâ€œMPDPC with extended voltage set for gridâ€œconnected converters. IET Energy Systems Integration, 2021, 3, 413-425.	1.8	1

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163	Parametric Optimization and Multi-Physics analysis of Medium Frequency Transformers for Solid State Transformer Applications. , 2021, , .		1
164	An Accurate Online Parameter Estimation Technique for Inductive Electric Vehicle Charging Systems. , 2021, , .		1
165	A ZigBee Based Architecture for Public Safety Communication in Hurricane Scenario. Advances in Intelligent Systems and Computing, 2020, , 493-510.	0.6	1
166	A Hybrid Approach for Weather-based Power Interruption Forecasting using Multilayer Perceptrons and Parametric Models. , 2020, , .		0
167	A Novel Algorithm for Concurrent Charge & Discharge of a Non-Monolithic Battery Energy Storage System. , 2021, , .		0
168	Voltage Regulation of Photovoltaic System with varying Loads. , 2021, , .		0
169	Optimal Design of Bipolar Power Pad for Dynamic Inductive EV Charging System Application. , 2021, , .		0
170	Multiphysics-based Design Optimization of Medium Frequency Transformer with Experimental Validation. , 2021, , .		0
171	Penetration of Errors in Power Transformer Losses Measurements in Real Working Conditions. , 2015, , .		0