

Evgeny V. Solomin

Full Professor, Ph.D

**Electric Stations, Grids and
Systems of Power Supply Department**

FACULTY OF POWER ENGINEERING


**SOUTH URAL STATE UNIVERSITY
(National Research University)**

CURRICULUM VITAE

Director General

**“URALMET”
Scientific Research Institute**

CHELYABINSK, RUSSIAN FEDERATION
September 2019

<i>Name:</i>	Evgeny V. Solomin	
<i>Date of birth:</i>	25 March 1963	
<i>Place of birth:</i>	Chelyabinsk, Russian Federation	
<i>Nationality:</i>	Russian	
<i>Language:</i>	Russian (proficiency, mother tongue C2). English (advanced, technical translation C2). Hungarian (pre-intermediate A1)	
<i>Marital status:</i>	Married with one child	
<i>Home address:</i>	18 Lazuritovaya Street, Chelyabinsk, 454902, Russian Federation	
<i>Work address:</i>	76-257 Prospect Lenina, Chelyabinsk, 454080, Russian Federation	

1. EDUCATION

1984 – 1987	<i>BSc Degree,</i> Department of Electrical and Computer Engineering, Faculty of Industrial and Computer Engineering, Chelyabinsk Polytechnical University, Chelyabinsk, Russian Federation. <i>Grade 9.0/10.0 (A+), High Distinction.</i> Diploma Thesis: “ <i>Mobile Robot Arm Monitoring and Control</i> ”.
1987 – 1990	<i>Diploma and MSc Degree,</i> Department of Robotics, Mechanical Faculty, Budapest Technical University, Budapest, Hungary. <i>Grade 9.0/10.0 (A+), High Distinction.</i> Diploma Thesis: “ <i>Development of Control System for Robotic Manipulator</i> ”.
2006 – 2009	<i>Ph. D. Degree (Candidate of Science) in Wind Power,</i> Department of Renewable Energy Sources, Power Engineering Faculty, South Ural State University, Chelyabinsk, Russian Federation. <i>Grade A, High Distinction</i> Dissertation: “ <i>Minimizing the Vibrations of Vertical Axis Wind Turbine</i> ”.
2010 – 2013	<i>Ph. D. Degree (Doctor of Science) in Wind Power,</i> Department of Electrification and Communities, Power Engineering Faculty, Altay State Technical University, Barnaul, Russian Federation. <i>Grade A, High Distinction</i> Dissertation: “ <i>Methodology of the Design and Development of Vertical Axis Wind Turbines</i> ”.

2. PROFESSIONAL EXPERIENCE

1990 – 1992	Supply and maintenance engineer, “Sezon” Construction Center, Chelyabinsk, RF.
1992 – 1994	Design engineer, “Empire Magnetics, Inc., Rohnert Park, CA, USA.
1994 – 1996	CEO, “Vitas” Engineering Development Company, Chelyabinsk, RF.
1996 – 1999	CEO, “AARM” Joint Stock Company, Sebastopol, CA, USA.
1999 – pres.	CEO, “Uralmet” Scientific Research Institute, Chelyabinsk, RF.
2003 – 2011	Expert, Lawrence Berkeley National Lab, Berkeley, CA, USA.
2009 – 2013	Associated Professor, South Ural State University, Chelyabinsk, RF.
2009 – 2012	Consultant, Wayne State University, Wayne, MI, USA.
2012 – pres.	Expert, Engineering Panel, 7th FW Program (Horizon-2020), Brussels, Belgium, EU.
2013 – pres.	Full Professor, South Ural State University, Chelyabinsk, RF.

3. TEACHING EXPERIENCE

3.1. Undergraduate courses

2009 – pres.	‘Modern problems of use of renewable energy sources’, 8 th Semester: Lectures, Tutorials. ‘Energy Saving in the social sphere’, 9 th Semester: Lectures, Tutorials. ‘Integrated usage of energy storage facilities and stations’, 10 th Semester: Lectures, Tutorials.
2013 – pres.	‘Decentralized power supply systems with distributed energy sources’, 9 th Semester: Lectures, Tutorials. Project training. ‘Installation and operation of renewable energy plants’, 10 th Semester: Lectures, Tutorials. Project training. ‘Combined power plants based on renewable energy sources’, 11-12 th Semester: Lectures, Tutorials. Project training.

3.2. Laboratory tutorials

2011 – pres.	Laboratory tutorials in my capacity as Lecturer: ‘Wind Turbine Parameters Research’ (Educational); ‘Wind Turbine Component Modeling and Development’ (Educational); ‘Solar Panel Parameters Research’ (Educational); ‘Storage Battery Parameters Research’ (Educational).
2013 – pres.	Laboratory tutorials in my capacity as Assistant Professor: ‘Wind Turbine Component Development and Testing’ (Educational); ‘Wind Turbine Operation Optimization’ (Industrial); ‘Wind Turbine Control System Programming and Debugging’ (Industrial); ‘Solar Electric Station Operation Optimization’ (Industrial).

3.3. Diploma Theses

2010 – pres.	Supervision of more than 40 MSc Diploma Theses.
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3.4. Post-graduate courses

2012 – pres.	‘Iteration Development and Optimizing of Wind Turbine’. ‘Development, montage and testing of Multi-Tier Vertical Axis Wind Turbines’
2014 – pres.	‘Development Hybrid Wind-Solar Power Plants’ ‘Development Hybrid Wind-Solar-Hydrogen Power Plants’ ‘Development of Thermostatic Systems for All-Climate Application’

3.5. Ph.D. Dissertations

2017	Martyanov, A., ‘ <i>Study of Control Algorithms and Development of Controller for Vertical Axis Wind Turbine</i> ’, 2012-2017.
2018	Sirotkin, E., ‘ <i>Development of Emergency Braking System for Vertical Axis Wind Turbine</i> ’, 2014-2018.

4. RESEARCH PROJECTS

4.1. Research and Development Projects

1992 – 1993	“ <i>Robotic Crawler for Cleaning Sea Life from Ship Board</i> ”. Commercial project. Funding Source: Empire Magnetics, Inc., CA, USA (\$120.000). Responsibility: <i>Researcher</i> .
1992 – 1994	“ <i>Development of Automation for Bar Stand</i> ”. Commercial project. Funding Source: Empire Magnetics, Inc., CA, USA (\$60.000). Responsibility: <i>Researcher</i> .
1994 – 1996	“ <i>Development of Special Electric Motor for Mars Rover Motor Wheel</i> ”. Commercial projects. Funding Source: Empire Magnetics, Inc., CA, USA (\$55.000). Responsibility: <i>Project Leader</i> .
1996 – 1997	“ <i>Development of Special Electric Generator for Super Flywheel</i> ”. Commercial projects. Funding Source: Empire Magnetics, Inc., CA, USA (\$45.000). Responsibility: <i>Project Leader</i> .
1996 – 2010	“ <i>Development of Special Electric Machines</i> ”. Commercial projects. Funding Source: Empire Magnetics, Inc., CA, USA (≈\$1.900.000). Responsibility: <i>Project Leader</i> .
2003 – 2006	“ <i>Development of Wind Power Plants with Vertical Axis of Rotation 1-30 kW</i> ”. R&D project. Agreement 2568r (LBNL-T2-0203-RU). Funding Source: Lawrence Berkeley National Laboratory, US Department of Energy, USA (\$945.000). Responsibility: <i>Technical advisor</i> .
2006 – 2009	“ <i>All-Weather Testing of Vertical Axis Wind Turbines</i> ”. R&D project. Agreement RUE-2-010620-CH-06. Funding Source: Lawrence Berkeley National Laboratory, US Department of Energy, USA (\$450.000). Responsibility: <i>Project Leader</i> .
2009 – 2010	“ <i>Development of Scientific and Technical basis for the Development of Effective Systems of Autonomous Public Lighting Based on the Optimal Combined Usage of Renewable Energy Sources, Energy Saving Electrochemical Batteries and High-Performance Lighting</i> ”. R&D project. Agreement 02.516.11.6188. Funding Sources: Ministry of Education of RF, United Institute of High Temperature, RF (2.000.000 rubles ≈ \$70.000). Responsibility: <i>Project Leader</i> .
2009 – 2010	“ <i>Development of Scientific and Technical basis for the Design of Wind Turbines with Vertical Axis of Rotation with the Participation of US Scientific Research Organizations</i> ”. R&D project. Agreement 02.516.11.6186. Funding Sources: Ministry of Education of RF (4.800.000 rubles ≈ \$160.000). Responsibility: <i>Project Leader</i> .
2010 – 2011	“ <i>Development of the Wind Power Plant on the base of Multi-tier Vertical Axis Wind Turbine</i> ”. R&D project. The best innovative project of Y2010 in Chelyabinsk region. Funding Sources: Chelyabinsk Regional Council, Chelyabinsk, RF (1.000.000 rubles ≈ \$33.000). Responsibility: <i>Project Leader</i> .
2010 – 2011	“ <i>Development of Hybrid Wind-Solar Power Plant for Public Lighting</i> ”. R&D project. The best innovative project of Y2010 in Chelyabinsk city. Funding Sources: City Council, Chelyabinsk, RF (1.300.000 rubles ≈ \$43.000). Responsibility: <i>Project Leader</i> .
2011 – 2015	“ <i>Dynamic modeling of wind power plants</i> ”. R&D project. Agreement 11-08-00338-a. Funding Sources: Russian Fund of Fundamental Research (1.200.000 rubles ≈ \$40.000).

	Responsibility: <i>Project Leader</i> .
2011 – 2012	" <i>Design and Development of Wind Turbine on 3 kW Power on the Basis of Optimal Design Methodology with Technical and Economic Indicators Exceeding Foreign and Domestic Analogues, with the Organization of Pilot Production</i> ". R&D project. Agreement 16.516.11.6010. Funding Sources: Ministry of Education of RF (10.000.000 rubles ≈ \$333.000). Responsibility: <i>Project Leader</i> .
2011 – 2011	" <i>Development, Implementation and Commercialization of Intelligent Electronic Wind Power Plant Control System</i> ". R&D project. The best innovative project of Y2011 in Chelyabinsk region. Funding Sources: Chelyabinsk Regional Council, Chelyabinsk, RF (2.000.000 rubles ≈ \$66.000). Responsibility: <i>Project Leader</i> .
2011 – 2011	" <i>Development of Heat Storage System Based on Wind Power Plant</i> ". R&D project. The best prospective project of Y2011 in Chelyabinsk city. Funding Sources: City Council, Chelyabinsk, RF (200.000 rubles ≈ \$6.000). Responsibility: <i>Project Leader</i> .
2011 – 2011	" <i>Development of Aerodynamic Governors of 3 kW Vertical Axis Wind Power Plant</i> ". R&D project. The best innovative project of Y2011 in Chelyabinsk city. Funding Sources: City Council, Chelyabinsk, RF (1.300.000 rubles ≈ \$43.000). Responsibility: <i>Project Leader</i> .
2012 – 2013	" <i>Design and Development of a Scalable Wind Turbine Based on Optimization Methodology with the Organization of a Collective Usage Center</i> ". R&D project. Agreement 14.B37.21.1226. Result: arrangement of "Wind Power Plant" Collective Usage Center (http://ses.susu.ru/миц-альтернативная-энергетика/разработки/ and http://ckp-rf.ru/ckp/496931/). Funding Sources: Ministry of Education of RF (3.500.000 rubles ≈ \$116.000). Responsibility: <i>Project Leader</i> .
2013 – 2014	" <i>Complex Research in Modeling, Development and Usage of Digital Measuring Current Transformers for AC High Voltage Power Lines with the Transmission of Digital Information via Fiber Optic Lines</i> ". R&D project. Agreement 14.516.12.0007. Funding Sources: Ministry of Education of RF (18.000.000 rubles ≈ \$600.000). Responsibility: <i>Researcher</i> .
2014 – 2016	" <i>Fabrication of Prototypes of Digital Combined Current and Voltage Measuring Transformers for Digital Substations of High-Voltage AC Power Lines with Information Transmission via Fiber-Optic Lines for Energy Saving Systems of Transportation, Distribution and Usage of Energy</i> ". R&D project. Agreement 14.576.21.0047. Funding Sources: Ministry of Education of RF (30.000.000 rubles ≈ \$500.000). Responsibility: <i>Researcher</i> .
2014 – 2016	" <i>Development of Scientific and Technical Solutions for Components of Mobile Chargers for Batteries of Hybrid and Electric Drives of Urban Freight and Passenger Transport</i> ". R&D project. Agreement 14.577.21.0154. Result: Device of High Speed Charge of Battery Pack of "KAMAZ" Truck. Funding Sources: Ministry of Education of RF (19.500.000 rubles ≈ \$325.000). Responsibility: <i>Researcher</i> .
2016 – pres.	" <i>Development of Intelligent Control System for 10 kW Wind-Solar Hybrid Power Plant</i> ". R&D project. Agreement TS/OKR1-2016. Funding Sources: "Kuntsevo" Design Bureau, Joint Stock Company, RF (12.000.000 rubles ≈ \$200.000). Responsibility: <i>Project Leader</i> .

4.2. Research and Development Projects of PhD Students

2015 – 2016	" <i>Development of Electromechanical braking system for wind power plant</i> ". R&D
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	project. Funding Sources: Foundation for Assistance to Small Innovative Enterprises, RF (400.000 rubles ≈ \$6.000). Responsibility: <i>Project Advisor</i> .
2018 – 2019	" <i>Development of thermostated system for wind power plant</i> ". R&D project. Funding Sources: Foundation for Assistance to Small Innovative Enterprises, RF (200.000 rubles ≈ \$3.000). Responsibility: <i>Project Advisor</i> .
2019 – 2021	" <i>Theoretical justification and experimental research of new method for yaw control of the rotor of a horizontal-axis wind turbine</i> ". Fundamental research project. Agreement 19-08-00070\19. Funding Sources: The Russian Foundation for Basic Research, RF (200.000 rubles ≈ \$3.000). Responsibility: <i>Project Advisor</i> .

4.3. Personal Technical Outstanding Achievements

- Development of Multi-tier Unique Highly Efficient Autonomous/Grid-tied Vertical Axis Wind Turbines (VAWT).

Family of 40+ VAWTs has been developed and partially being serially produced:



- Wind-solar hybrid power plants with thermostated batteries and adaptive intelligent control system for any climatic conditions including Arctic.
- Energy saving equipment (heat accumulators, super flywheels, infra-red film heaters, LED lighters) and combination with renewable energy sources.

4. ACADEMIC COMMUNITY INVOLVEMENT ACTIVITIES

2009 – 2014	Participation in the Council for MSc dissertations (Renewable Energy Sources), South Ural State University.
2012 – pres.	Participation in the Council for MSc dissertations (Electric Stations and Renewable Energy Sources), South Ural State University.
2013 – pres.	Participation in the Council for PhD dissertations (Electrotechnical Plants and Systems), South Ural State University.
2013	Created a Hymn of Power Engineering Faculty, South Ural State University.
2013 – pres.	Head of "Alternative Energy" International Innovation Center (http://www.susu.ru/ru/university/departments/scientific/centres), Department "Electric Stations, Grids and Systems of Power Supply", South Ural State University.
2015 – pres.	Member of South Ural IEEE Chapter (http://su-ieee.ru/index-eng.html).
2017 – pres.	Participation in the Council for PhD dissertations (Mathematical and Software Support of Computers, Complexes and Computer Networks), South Ural State University.

5. SCIENTIFIC ACTIVITIES - AWARDS

6.1. Reviewer of scientific technical journal and conference papers

<i>Journals</i>	International Journal "Alternative Energy and Ecology", RF (since 2009).
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	International Transactions on Electrical Energy Systems, USA (since 2017).
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6.2. Editorial Board Member

<i>Journals</i>	Reviewer of “International Transactions on Electrical Energy Systems” Journal (John Wiley & Sons, Inc., USA).
	Reviewer of «Applied Solar Energy» and Heliotechnica Journals (USA, Uzbekistan).
	Editorial Board Member of International Journal “Alternative Energy and Ecology”, RF (since 2009).
	Reviewer of “ACTA Press” International Journal, Canada (since 2012).
	Editorial Board Member of International Scientific Journal "Solar Engineering" (Uzbekistan) and journal "Applied Solar Energy", USA (since 2018).
	Reviewer of journal “International Transactions on Electrical Energy Systems”, Wiley (since 2018).

6.3. Member of Conference Editorial Boards and International Advisory Committees

2015 – pres.	Member of South Ural IEEE Chapter (http://su-ieee.ru/index-eng.html).
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6.4. Chairman in Sessions of Technical Conferences

ICIE-2016, International Conference on Industrial Engineering.
ICIE-2017, International Conference on Industrial Engineering.
UralCon-2017, International Ural Conference.
UralCon-2018, International Ural Conference on Green Energy.
ICIE-2018, International Conference on Industrial Engineering.

6.5. Expert

2010 – pres.	"Skolkovo" Innovation Foundation, RF.
2012 – pres.	7th Frame Work Program and Horizon-2020 (Engineering Panel), EU.
2012 – pres.	JSC “RusHydro”, RF.
2012 – pres.	Russian Union of Renewable Energy Sources Usage, RF.
2012 – pres.	Federal Register of Experts of RF Science and Technology, RF.
2016 – pres.	Russian Scientific Fund, RF.
2016 – pres.	Foundation for Assistance to Small Innovative Enterprises, RF.

7. DISTINCTIONS - AWARDS

39 certificates, awards and prizes from: - 31 International Conferences; - 5 non-commercial organizations; - 3 Universities.

8. MEMBER OF PROFESSIONAL AND SCIENTIFIC ASSOCIATIONS

2001 – pres.	Member of Russian Copyright Society.
2010 – pres.	Member of Institute of Electrical and Electronics Engineering (IEEE).

9. RESEARCH INTERSTS

Primary research activities are in the areas of:

Design and analysis of wind turbines and hybrid power plants.
Algorithms of control of wind turbines.
Design of thermostatic boxes for control systems and batteries.
Energy conversion power plants on the base of renewable sources (wind energy and PV systems).
Anti-ice and dust protection systems for wind turbines and PV panels.
Electric vehicles on wind and solar power.

10. PATENTS (names listed in alphabet)

1. Patent # 2244996 Russian Federation, IPC H02K 19/16 1/06. Alternating current generator / S.A. Gandja, E.V. Solomin, etc. – Appl.# 2003124088/09; applied on 31.07.03; published on 20.01.2005, Bulletin 2. – 3 pages.
2. Patent # 2347104 Russian Federation, IPC F03D 3/06 (2006.1). Rotor of wind turbine with vertical axis of rotation / Y.V. Grakhov, E.V. Solomin etc. – Appl.# 2006117014/06; applied on 12.05.2006; published on 20.02.2009, Bulletin 5. – 12 pages.
3. Patent # 87767 Russian Federation, IPC F16F 15/133 (2006.01). Shock absorber of guy wire of wind turbine / I.M. Kirpichnikova, E.V. Solomin etc. – Appl.# 2008138451/22; applied on 26.09.2008; published on 20.10.2009, Bulletin 29. – 3 pages.
4. Patent # 100851 Russian Federation, IPC H01L 33/00 (2010.01). Combined wind solar energy unit with LED lighter for public places / E.V. Solomin – Appl.# 2010137760/28; applied on 10.09.2010; published on 27.12.2010, Bulletin 36. – 2 Pages.
5. Patent # 101105 Russian Federation, IPC F03D 9/02 (2006.01). Combined wind solar energy unit with LED lighter for public places / E.V. Solomin – Appl.# 2010137417/06; applied on 08.09.2010; published on 10.01.2011, Bulletin 1. – 2 pages.
6. Know-how. Control of alternator power of wind turbine / I.M. Kirpichnikova, A.PAGES A.S. Martyanov, E.V. Solomin. – Order 60 of 18.02.2011 – GOU VPO South Ural State University. – 7 pages.
7. Patent # 103168 Russian Federation, IPC F21S9/02 (2006.01). Autonomous lighting / E.V.Solomin – Appl.# 2010138386/07; applied on 17.09.2010; published on 27.03.2011, Bulletin 9. – 2 pages .
8. Patent # 108504 Russian Federation, IPC F03D 3/06 (2006.01). Monolithic blade of wind turbine / E.V.Solomin – Appl.# 2011111177/06; applied on 24.03.2011; published on 20.09.2011, Bulletin 26. – 2 pages .
9. Patent # 110825 Russian Federation, IPC F24H 7/02 (2006.01) H02J 15/00 (2006.01). Hybrid system of heat supply on the base of renewable power source / E.V.Solomin – Appl.# 2011107463/28; applied on 25.02.2011; published on 27.11.2011, Bulletin 33. – 4 pages .
10. Patent # 113096 Russian Federation, IPC H02P 9/00 (2006.01) H02P 9/04 (2006.01). Controller of wind turbine power / E.V.Solomin – Appl.# 2011113592/07; applied on 07.24.2011; published on 27.01.2012, Bulletin 3. – 4 pages .
11. Patent # 110424 Russian Federation, IPC F03D 7/06 (2006.01). Mobile wind turbine / V.G. Nikolaev, E.V.Solomin – Appl.# 2011124836/06; applied on 17.06.2011; published on 20.11.2011, Bulletin 32. – 3 pages .
12. Patent # 112954 Russian Federation, IPC F03D 7/06 (2006.01). Aerodynamic control of vertical axis wind turbine rotation frequency / V.G.Nikolaev, E.V.Solomin – Appl.# 2011124857/28; applied on 17.06.2011; published on 27.01.2012, Bulletin 3. – 4 pages .
13. Patent # 112955 Russian Federation, IPC F03D 11/00 (2006.01). Heating of wind turbine blade on the base of solar panel power generation / E.V.Solomin – Appl.# 2011133617/06; applied on 10.08.2011; published on 27.01.2011, Bulletin 3. – 3 pages.
14. Patent # 2443902 Russian Federation, IPC F03D3/06 (2006.01). Rotor of vertical axis wind turbine / Y.V.Grakhov, E.V.Solomin and others – Appl.# 2010121692/06; applied on 27.05.2010; published on 27.02.2012, Bulletin 6. – 5 pages.

15. Patent # 2472987 Russian Federation, IPC F16F15/04 (2006.01), F03D11/00 (2006.1). Vibro-shocker of wind turbine / I.M. Kirpichnikova, E.V.Solomin and others – Appl.# 2008128666/11; applied on 14.07.2008; published on 20.01.2013, Bulletin 2. – 7 pages.
16. Patent # 127063 Russian Federation, IPC C02F 1/14 (2006.01). Solar powered water purification device / I.M. Kirpichnikova, E.V. Solomin and others – Appl.# 2012143904/05; applied on 15.10.2012; published on 20.04.2013, Bulletin 11. – 2 pages.
17. Patent # 131094 Russian Federation, IPC F03D 1/00 (2006.01). Device of autonomous signal lighting of wind turbine on the base of piezoelectric generator / A.A. Vozmilova, E.V.Solomin and others – Appl.# 2013103646/06; applied on 28.01.2013; published on 10.08.2013, Bulletin 22. – 2 pages.
18. Patent # 142083 Russian Federation, IPC F03D 1/00 (2006.01). Device of automatic braking of horizontal axis wind turbine rotor / E.S. Bodrova, E.V.Solomin and others – Appl.# 2013158661/06; applied on 26.12.2013; published on 20.06.2014, Bulletin 17. – 3 pages.
19. Patent # 142246 Russian Federation, IPC F02D 9/00 (2006.01). Device of autonomous power supply of power line measuring equipment / G.I. Volovich, E.V. Solomin and others – Appl.# 2013138846/07; applied on 19.08.2013; published on 20.06.2014, Bulletin 17. – 5 pages.
20. Patent # 143619 Russian Federation, IPC F03D 9/00 (2006.01). Transformer type wind turbine / A.V. Kirichev, E.V.Solomin and others – Appl.# 2014107261/06; applied on 24.02.2014; published on 27.07.2014, Bulletin 21. – 5 pages.
21. Patent # Program. 2015616945 Russian Federation. Program for charging device control in inverter mode / D.V. Korobotov, E.V.Solomin, A.S. Anikin, A.S. Martyanov, D.V. Topolskiy, I.G. Topolskaya – Appl.# 2015613622; applied on 30.04.2015; published on 26.06.2015.
22. Patent # Program. 2015616930 Russian Federation. Program for calculating if dynamic model of accumulating battery / N.D. Topolskiy, D.V. Topolskiy, I.G. Topolskaya, D.V. Korobotov, E.V.Solomin, A.S. Anikin, A.S. Martyanov, – Appl.# 2015613646; applied on 30.04.2015; published on 25.06.2015.
23. Patent # 155351 Russian Federation, IPC F03D7/04 (2006.01). Adoptive combined device for controlling the wind turbine rotor rotation frequency / E.V.Solomin, A.S. Anikin, E.A. Sirotkin, E.E. Solomin, A.A. Sirotkin, S.V. Kozlov – Appl.# 2014154564; applied on 31.12.2014; published on 09.09.2015, Bulletin 12. – 5 pages.
24. Patent # 157241 Russian Federation, IPC F03D7/04 (2006.01). Hydrodynamic support of vertical axis wind turbine rotor / E.V.Solomin, E.A. Sirotkin, E.E. Solomin, S.V. Kozlov – Appl.# 2014154565; applied on 31.12.2014; published on 02.11.2015, Bulletin 11. – 5 pages.
25. Patent # 159443 Russian Federation, IPC H02M 1/10 (2006.01). Power source for high voltage part of digital measuring current transformer with power extraction from phase wire of high voltage power line / G.I. Volovich, E.V.Solomin and others – Appl.# 2015131578; applied on 29.07.2015; published on 18.01.2016, Bulletin 17. – 5 pages.
26. Know-how. Approach of rapid charge of Li-ion battery / D.V. Korobotov, A.S. Martyanov, E.A. Sirotkin, E.V.Solomin,. – Order 530 of 12.10.2016 –South Ural State University. – 6 pages.
27. Patent # Program. 2016663329 Russian Federation. Program for debugging of “SPC Debug Console” / A.S. Martyanov, D.V. Korobotov, I.M. Kirpichnikova, E.V.Solomin – Appl.# 2016661249; applied on 24.10.2016; published on 05.12.2016.
28. Patent # Program. 2016663720 Russian Federation. Program for debugging of “SPC Debug Console” / D.V. Korobotov, I.M. Kirpichnikova, A.S. Martyanov, E.A. Sirotkin, E.V.Solomin – Appl.# 2016661182; applied on 24.11.2016; published on 15.12.2016.
29. Patent # 166944 Russian Federation, IPC F03D 80/00 (2016.01), F03D 80/40 (2016.01). Centrifugal anti-ice device for wind turbine blades / D.M. Lebedev, N.V. Timakova, E.V.Solomin, I.M. Kirpichnikova – Appl.# 2015151944; applied on 03.12.2015; published on 20.12.2016, Bulletin 35. – 2 pages.
30. Patent # 172479 Russian Federation, IPC F03D 80/00 (2016.01), F03D 80/40 (2016.01). Non-freezing system for domestic animal watering at places far located from grid / A.L. Shestakov, D.R. Karipov, R.S. Karipov, E.V.Solomin – Appl.# 2016144551; applied on 03.11.2016; published on 11.07.2017, Bulletin 35. – 6 pages.
31. Patent # 177585 Russian Federation, IPC F03D 13/35 (2016.01), F03D 9/25 (2016.01), H02K 35/02 (2016.01). The device generating the electrical energy using mechanical vibrations of the rotor of the wind power plant / I. M. Kirpichnikova, S. V. Kozlov, D. V. Karabutov, Martyanov A. S., Solomin E. V.,

Solomin E. E., E. A. Sirotkin, No. 2016125650; Appl. 27.06.2016; publ. 01.03.2018, bull. No. 7. - 3 pages.

32. Patent # 178619 Russian Federation, IPC F03D 7/06 (2016.01), B60L 1/08 (2016.01). Electromechanical braking device of the wind power plant / E. A. Sirotkin, E. V. Solomin, I. M. Kirpichnikova - # 2017129298/06 (050734); zayavl. 16.08.2017; publ. 13.04.2018, bull. No. 7. - 3 pages.

11. PUBLICATIONS (names listed in alphabet in some cases)

11.1. In Journals and Conference Materials indexed Scopus / Web of Science

(<https://www.scopus.com/home.uri> and <http://ieeexplore.ieee.org/search>)

Scopus:

1 Kirpichnikova I.M. Simulation of a generator for a wind–power unit / I. M. Kirpichnikova, A. S. Martyanov, E. V. Solomin // *Russian Electrical Engineering* 10/2013 (Scopus, IF=0.44); 84(10). – pages 46–49. DOI:10.3103/S1068371213100076 (Кирпичникова, И.М. Моделирование генератора ветроэнергетической установки / Кирпичникова И.М., Мартьянов А.С., Соломин Е.В. // *Электротехника* (ISSN 1068–3712), М. – 2013. – №10. – с.46–49). – https://www.researchgate.net/publication/262891125_Simulation_of_a_generator_for_a_wind-power_unit.

2 Volovich, G.I. A mathematical model of noise in the measuring channels of intelligent systems / G.I. Volovich, E.V. Solomin, I.G. Topolskaya, D.V. Topolsky // *Bulletin of South Ural State University. Section "Mathematic modeling and programming* (Scopus, IF=0.434) (Вестник ЮУрГУ. Серия «Математическое моделирование и программирование»). – Chelyabinsk: South Ural State University, 2014. – Том 7. – №4. – С.120–125. DOI: 10.14529/mmp140410. http://www.mathnet.ru/php/archive.phtml?wshow=paper&jrnid=vyuru&paperid=243&option_lang=eng, <http://cyberleninka.ru/article/n/a-mathematical-model-of-noise-in-the-measuring-channels-of-intelligent-systems>.

3 Solomin, Evgeny Iterative Approach in Design and Development of Vertical Axis Wind Turbines / Evgeny Solomin, Irina Kirpichnikova, Andrey Martyanov // *Applied Mechanics and Materials* (Scopus, IF=0.16). – Volume 792: Energy Systems, Materials and Designing in Mechanical Engineering (09/2015; 792:582–589). DOI:10.4028/www.scientific.net/AMM.792.582 ISBN–13: 978–3–03835–548–9 // International Conference for Young Scientists “ELECTRICAL ENGINEERING. ELECTROTECHNOLOGY. ENERGY”, June 9–12, 2015, Novosibirsk, Russia. – 2015. – pages 582–589. <https://www.scientific.net/AMM.792.582>. – <http://www.ttp.net/978-3-03835-548-9/10.html>; <http://www.scientific.net/AMM.792/10>.

4 Volovich, G.I. Modelling and calculation of adaptive devices of automation, control and protection for intellectual electric grid in SCILAB freeware computer mathematic package / G.I. Volovich, E.V. Solomin, I.G. Topolskaya, D.V. Topolsky, N.D. Topolsky // *Bulletin of South Ural State University. Section "Mathematic modeling and programming* (Scopus, IF=0.434) (Вестник ЮУрГУ. Серия «Математическое моделирование и программирование»). – Chelyabinsk: South Ural State University, 2015. – Vol 8. – №4. – pp.76–82. DOI: 10.14529/mmp150406. – <http://mmp.vestnik.susu.ru/article/en/361/>. - <http://mmp.vestnik.susu.ru/issue.php/en/29>.

5 Martyanov, A.S. Development of control algorithms in Matlab/Simulink / A.S. Martyanov, E.V. Solomin, D.V. Korobotov // *International Conference on Industrial Engineering*. – 23.11.2015. – Chelyabinsk. – *Procedia Engineering Journal* (Scopus, IF=0.73). – Volume 129, 2015, Pages 922–926 (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5) DOI: 10.1016/j.proeng.2015.12.135. <http://www.sciencedirect.com/science/article/pii/S1877705815040199>.

6 Topolskiy, D., Topolskiy, N., Solomin, E., Topolskaya, I. Modeling of a data exchange process in the Automatic Process Control System on the base of the universal SCADA-system. (2016) *IOP Conference Series: Materials Science and Engineering*, 124 (1), art. no. 012104. Dates: 1–4.12.2015. (Scopus, IF=0.32). DOI: 10.1088/1757-899X/124/1/012104. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84975743952&doi=10.1088%2f1757-899X%2f124%2f1%2f012104&partnerID=40&md5=944dc43cae548a1aa9652140e315c79e>. <http://iopscience.iop.org/article/10.1088/1757-899X/124/1/012104>. <http://iopscience.iop.org/>.

7 Sirotkin, E.A. Emergency Braking System for the Wind Turbine / E.A. Sirotkin, A.S.Martyanov, E.V. Solomin, S.V. Kozlov // *2016 2nd International Conference on Industrial Engineering, Applications*

- and Manufacturing (ICIEAM). – 19–20.05.2016. – Chelyabinsk. – Procedia Engineering Journal (Scopus, IF=0.32) (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5). – DOI: 10.1109/ICIEAM.2016.7911451. – <http://www.icie-rus.org/programme2016-rus.html>, <http://ieeexplore.ieee.org/document/7911451/>.
- 8 Martyanov, A.S., Korobotov, D.V., Solomin, E.V. Research of IGBT–Transistor in Pulse Switch. *Procedia Engineering Journal*. (2016) 2016 2nd International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2016 - Proceedings, art. no. 7911470. (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5). (Scopus, IF=0.32) – DOI: 10.1109/ICIEAM.2016.7911470 https://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=38536, <http://ieeexplore.ieee.org/document/7911470/>.
- 9 Kozlov, S.V. Wind Turbine Rotor Magnetic Levitation / S.V .Kozlov, E.A. Sirotkin, E.V. Solomin // 2016 2nd International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM). – 19–20.05.2016. – Chelyabinsk. – Procedia Engineering Journal (Scopus, IF=0.32) (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5). – DOI: 10.1109/ICIEAM.2016.7911477 https://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=38536, <http://ieeexplore.ieee.org/document/7911477/>.
- 10 Topolskiy, D.V. Development of algorithms of interaction between electronic instrument transformer and substation automation system / D.V. Topolskiy, N.D. Topolskiy, E.V. Solomin // 2016 2nd International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM). – 19–20.05.2016. – Chelyabinsk. – Procedia Engineering Journal (Scopus, IF=0.32) (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5). – DOI: 10.1109/ICIEAM.2016.7910987 https://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=38536, <http://ieeexplore.ieee.org/document/7910987/>.
- 11 Korobotov, D. Wind Turbine Power Plant Control / D.V.Korobotov, E.A.Sirotkin, A.O.Troickiy, E.V.Solomin // X International IEEE Scientific and Technical Conference "Dynamics of Systems, Mechanisms and Machines" (Dynamics) ("Международная IEEE научно-техническая конференция «Динамика систем, механизмов и машин» под эгидой Institute of Electrical and Electronics Engineers (IEEE)"). – Omsk State Technical University. – 15–17 November 2016, Omsk, Russia. – 2016 Dynamics of Systems, Mechanisms and Machines (Dynamics 2016) (Scopus, IF=NO), Added to IEEE Xplore: 19 January 2017, IEEE, pp.1-5. – DOI: 10.1109/Dynamics.2016.7819031. http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=38674, <http://ieeexplore.ieee.org/document/7819031>.
- 12 Solomin, E.V., Efficiency Analysis of the Friction Material for the Wind Turbine Braking System / E.V. Solomin, E.A. Sirotkin, I.M. Kirpichnikova // *Solid State Phenomena* (Scopus, IF=0.39) (SNIP=0.31). – 2018. – Vol. 284. – pp. 1321-1326. – <https://doi.org/10.4028/www.scientific.net/SSP.284.1321>. – <https://www.scientific.net/SSP.284.1321>.
- 13 Sirotkin, E.A., Solomin, E.V., Gandzha, S.A., Kirpichnikova, I.M. Backup Mechanical Brake System of the Wind Turbine. (2018) *Journal of Physics: Conference Series*, 944 (1), art. no. 012109. DOI: 10.1088/1742-6596/944/1/012109. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85042296075&doi=10.1088%2f1742-6596%2f944%2f1%2f012109&partnerID=40&md5=d73cd195350e252a6e7b63b909f1a7da>.
- 14 Solomin, E.V. Development of Algorithms of Rapid Charging for Batteries of Hybrid and Electric Drives of City Freight and Passenger Automobile Transportation Vehicles / E.V. Solomin ; I.M. Kirpichnikova ; D.V. Korobotov ; A.S. Martyanov ; E.E. Solomin // *2018 Global Smart Industry Conference (GloSIC)* (Scopus, IF=NO). – Omsk State Technical University. – 13–15 November 2018, Chelyabinsk, Russia. – DOI: 10.1109/GloSIC.2018.8570134. <https://ieeexplore.ieee.org/document/8570134>.
- 15 Ibrahim, A., Solomin, E., Korobotov, D. Development of mathematical model of doubly fed induction electric machine for wind turbine with improved yaw system. (2019) *2019 International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2019*, art. no. 8743048. DOI: 10.1109/ICIEAM.2019.8743048. <https://www.scopus.com/record/display.uri?eid=2-s2.0-85068751066&doi=10.1109%2fICIEAM.2019.8743048&origin=inward&txGid=64655389accfb8efc6a69f87b5358f8e>.

16 Kovalyov, A.A., Solomin, E.V., Ibrahim, A., Romanov, K.V. Pressure plate generating electricity on the base of electromagnetic induction principle. (2019) *2019 International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2019*, art. no. 8742981. DOI: 10.1109/ICIEAM.2019.8742981. <https://ieeexplore.ieee.org/document/8742981>. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068795125&doi=10.1109%2fICIEAM.2019.8742981&partnerID=40&md5=13bfae1e7dfcebbd5650e1f0bcfbbbc>.

17 Romanov, K.V., Solomin, E.V., Babak, N.A., Kovalyov, A.A. Development of autonomous power supply from heat containing setting for electric equipment. (2019) *2019 International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2019*, art. no. 8742928. DOI: 10.1109/ICIEAM.2019.8742928. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068792051&doi=10.1109%2fICIEAM.2019.8742928&partnerID=40&md5=2610447c847c09abc33bd662816f641f>.

18 Solomin, E., Kaixuan, G., Yanming, J., Minghan, D. Off-shore PV and wind based energy generation. (2019) *2019 International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2019*, art. no. 8742965. DOI: 10.1109/ICIEAM.2019.8742965. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068782456&doi=10.1109%2fICIEAM.2019.8742965&partnerID=40&md5=2b7c295382f6ad2ea0dcbede6a00115c>.

Bassam Fadel Mohammed , O.J. Abdalghar and E. Solomin. *Journal of Engineering and Applied Sciences*. Year: 2019. Volume: 14/22.: 8425-8430. DOI: 10.3923/jeasci.2019.8425.8430. <http://medwelljournals.com/abstract/?doi=jeasci.2019.8425.8430>.

Web of Science:

1. Solomin, E.V. Adaptive control over the permanent characteristics of a wind turbine / Solomin E.V., Sirotkin E.A., Martyanov A.S. // *Procedia Engineering Journal* (WofS, IF=0.32). – Volume 129, 2015, Pages 640–646 (Journal reference: PROENG27157. PII: S1877–7058(15)03968–5). DOI: 10.1016/j.proeng.2015.12.084. <http://www.sciencedirect.com/science/article/pii/S1877705815039685>.

2. Solomin, E.V. Algorithms of LiFePO4 batteries automatic charge / E.V. Solomin, D.V. Topolsky, I.G. Topolskaya // *Procedia Engineering Journal* (WofS, IF=0.32). – Volume 129, 2015, Pages 213–218 (Journal reference: PROENG27158. PII: S1877–7058(15)03919–3) DOI: 10.1016/j.proeng.2015.12.035. <http://www.sciencedirect.com/science/article/pii/S1877705815039193>.

3. Solomin, E.V. Arrangement of data exchange between adaptive digital current and voltage transformer and SCADA–system under IEC 61850 standard / Solomin E.V., Topolsky D.V., Topolsky N.D. // *Procedia Engineering Journal* (WofS, IF=0.32). – Volume 129, 2015, Pages 207–212 (Journal reference: PROENG27157. PII: S1877–7058(15)03918–1). DOI: 10.1016/j.proeng.2015.12.034. <http://www.sciencedirect.com/science/article/pii/S1877705815039181>.

4. Solomin, E.V. Integration of Adaptive Digital Combined Current and Voltage Transformer into Digital Substation Ethernet Grid / E.V. Solomin, D.V. Topolskiy, N.D. Topolskiy // *Control and Communications (SIBCON), 2015 International Siberian Conference* (WofS, IF=NO) (XI Международная IEEE Сибирская конференция по управлению и связи SIBCON–2015). – Omsk. – 2015. – Date of Conference: 21–23 May 2015. Pages 1–4. DOI: 10.1109/SIBCON.2015.7147242. <http://ieeetpu.ru/files/sibcon2015.html>, <http://ieeexplore.ieee.org/document/7147242/>.

5. Kirpichnikova, I M Diagnosis and restoration of Li–Ion batteries / I M Kirpichnikova, D V Korobatov, A S Martyanov, E A Sirotkin, E V Solomin // *Journal of Physics: Conference Series* (WofS, IF=0.69) (SNIP=0.447) 803(1):012070, January 2017, DOI: 10.1088/1742-6596/803/1/012070, https://www.researchgate.net/publication/315349998_Diagnosis_and_restoration_of_Li-Ion_batteries.

6. A.S. Martyanov; D.V. Korobatov; E.V. Solomin. Simulation model of public street lighting provided by a photovoltaic converter and battery storage. *2017 International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM)* (WofS, IF=NO). Year: 2017. Pages: 1 – 5. DOI: 10.1109/ICIEAM.2017.8076213. <http://ieeexplore.ieee.org/document/8076213/>.

7. A. Miroshnichenko, E. Solomin, A. Ibrahim. Research of Aerodynamic Characteristics of Railway Train for Utilization of Related Airflow Energy. IEEE. 2018 International Ural Conference on Green Energy (UralCon). Year: 2018. DOI: 10.1109/URALCON.2018.8544354. <https://ieeexplore.ieee.org/document/8544354>.

8. A. Ibrahim, E. Solomin, A. Miroshnichenko. Control Strategy for Maximum Power Point Tracking of Doubly Fed Induction Motor for Wind Turbine. IEEE. 2018 International Ural Conference on Green Energy (UralCon). Year: 2018. DOI: 10.1109/URALCON.2018.8544372. <https://ieeexplore.ieee.org/document/8544372>.
9. [Q1] E.Solomin, I.Kirpichnikova, R.Amerkhanov, D.Korobatov, M.Lutovats, A.Martyanov. Wind-hydrogen standalone uninterrupted power supply plant for all-climate application. *2019 International Journal of Hydrogen Energy* (WofS, IF=2.48) (SNIP=1.267). Volume 44, Issue 7, 5 February 2019, Pages 3433-3449. DOI: <https://doi.org/10.1016/j.ijhydene.2018.12.001>. ELSEVIER reference HE24960. PII S0360-3199(18)33904-1. <https://www.sciencedirect.com/science/article/pii/S0360319918339041>. SNIP=1.267.
10. Solomin, E., Ibrahim, A., Sirotkin, E. Analysis of the Cell Phone Influence on the Human Body during Voice Control. *2018 International Multi-Conference on Industrial Engineering and Modern Technologies (FarEastCon-2018)* (WofS, IF=NO); Vladivostok; Russian Federation; 3 October. DOI: 10.1109/FarEastCon.2018.8602924. <https://ieeexplore.ieee.org/document/8602924>.
11. Korobatov, D., Martyanov, A., Solomin, E. Modeling of switching control algorithms over the power transistors of bi-directional synchronous-vector rectifier for storage battery charge. *Proceedings - 2018 International Conference on Industrial Engineering, Applications and Manufacturing, ICIEAM 2018. Moscow Polytechnic University, Moscow; Russian Federation; 15 May 2018 through 18 May 2018; Category number CFP18F42-ART; Code 148627*. DOI: 10.1109/ICIEAM.2018.8728853. <https://ieeexplore.ieee.org/document/8728853>.

11.2. In Brochures and monographs:

1. Solomin, E.V. Renewable power sources: Brochure for practice / I.M. Kirpichnikova, Solomin, E.V. – Chelyabinsk: Published on by SUSU. – 2009. – 50 Pages.
2. Solomin, E.V. Methodology of development and fabrication of vertical axis wind turbines: monograph / E.V. Solomin – Chelyabinsk: Published by SUSU. – 2011. – 324 pages.
3. Solomin, E.V. Basis for wind turbine development: monograph ISBN:978-3-8473-3504-7 / E.V. Solomin – Saarbrücken (Germany): Published by LAP LAMBERT Academic Publishing GmbH & Co. – 2012. – 268 pages.
4. Solomin, E.V. Vibro-diagnostics and vibro-balancing of Vertical Axis Wind Turbine: Tutorial / I.M. Kirpichnikova, E.V. Solomin. – Chelyabinsk: Published on by SUSU, 2013. – 69 pages.
5. Solomin, E.V. Development and choice of helio- and wind- power plant for hot water supply in Chelyabinsk region: Methodical instructions for practice / I.M. Kirpichnikova, L.A. Saplin, E.V. Solomin. – Chelyabinsk: Published on by SUSU, 2013. – 76 pages.
6. Solomin, E.V. Research of noise from wind turbine and methods of its reduction: Methodical instructions for scientific research practice / I.M. Kirpichnikova, E.V. Solomin. – Chelyabinsk: Published on by SUSU, 2013. – 46 pages.
7. Solomin, E.V. Wind turbines. Calculation of parameters of components: Tutorial / I.M. Kirpichnikova, E.V. Solomin. – Chelyabinsk: Published on by SUSU, 2013. – 117 pages.
8. Solomin, E.V. Solar heating Systems in power engineering: textbook (for direction (specialty) 140400.68 power engineering and electrical engineering) / I. M. Kirpichnikova, E. V. Solomin. - Chelyabinsk: SUSU publishing House, 2013. – 24 pages.
9. Solomin, E.V. Theoretical bases of use of nonconventional renewable energy sources: the manual (for the direction (specialty) 140400.62 power engineering and electrical engineering) / I. M. Kirpichnikova, E. V. Solomin. - Chelyabinsk: SUSU publishing House, 2013. – 32 pages.
10. Solomin, E.V. Wind Power in RF: monograph ISBN:978-3-659-38501-8 / E.V. Solomin, E.A. Sirotkin – Saarbrücken (Germany): Published by LAP LAMBERT Academic Publishing GmbH & Co. – 2015. – 57 pages.
11. Solomin, E.V. Energy Saving in the social sphere: textbook / I. M. Kirpichnikova, E. V. Solomin, A. S. Anikin. - Chelyabinsk: SUSU publishing House, 2015. – 46 pages.
12. Solomin, E.V. Calculation of parameters of energy storage for Autonomous power complexes: textbook (for direction (specialty) 140400.68 electric power and electrical engineering) / I. M. Kirpichnikova, E. V. Solomin. - Chelyabinsk: SUSU publishing House, 2017. – 46 pages.

11.3. Publications in International Journals (Russian – translated where applied):

1. Solomin, E.V. Wind Turbines of «SRC-Vertical» / I.M. Kirpichnikova, V.P. Krivospitskij, E.V. Solomin // *Bulletin MANEB. Attachement «Materials of 1 International scientific practical conference “Resource saving and renewable power sources”: economics, ecology, application experience »*. – S.Petersburg.–Chita, 2008. – V.13. – №3. – PAGES 129–134.
2. Solomin, E.V. Wind Turbine with vertical axis of rotation / I.M. Kirpichnikova, E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2008. – Vol.10. – №26. – PAGES 15–16.
3. Solomin, E.V. Combination of small power WPU with IR strip heater for heating the house / I.M. Kirpichnikova, I.N. Panasyuk, E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2009. – Vol.12. – №34. – PAGES 78–81.
4. Solomin, E.V. Made in Russia! Wind Turbines with vertical axis of rotation on 1...100 kW power for energy consumers / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2009. – №10. – PAGES 74–78.
5. Solomin, E.V. Vibroshokers of masts of super small vertical axis wind turbines / I.M. Kirpichnikova, E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2010. – Vol.13. – № 14(190). – PAGES 78–81.
6. Solomin, E.V. Engineering method and mathematic modeling in design of wind turbines / U.V. Grakhov, O.V. Matveenko, E.V. Solomin // *Bulletin of South Ural State University. Series «Mathematics, Mechanics, Physics»*. – Chelyabinsk: Published on by SUSU, 2010. – Vol.2. – №9(185). – PAGES 45–52.
7. Solomin, E.V. Economical aspects of using the wind turbines / E.V. Solomin // *Bulletin of South Ural State University. Series «Economics and management»*. – Chelyabinsk: Published on by SUSU, 2010. – Vol.14, 20(196). PAGES 32–36.
8. Solomin, E.V. Proposal for co-operation in production of wind turbines / J.Kul, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 115–125.
9. Solomin, E.V. Technical features and advantages of wind turbines / E.V. Solomin, R.L. Halstead // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 36–41.
10. Solomin, E.V. Technical features and advantages of wind turbines (in Russian) / E.V. Solomin, R.L. Halstead // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 36–41.
11. Solomin, E.V. Wind Turbines of SRC-Vertical / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 10–15.
12. Solomin, E.V. Lighting system based on wind turbine / A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 101–105.
13. Solomin, E.V. Conversion of energy in wind turbines / I.M. Kirpichnikova, A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 93–97.
14. Solomin, E.V. Charging controller of wind turbine / A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 106–109.
15. Solomin, E.V. Heating system on the base of WPU / N.V. Pronin, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 110–114.
16. Solomin, E.V. Comparison of characteristics of vertical axis wind turbines / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №1. – PAGES 48–53.
17. Solomin, E.V. Wind turbine economics / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010. – №2. – PAGES 28–30.
18. Solomin, E.V. Wind Turbines of SRC-Vertical for ecological resourts / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2010 – №2. – PAGES 60–64.
19. Solomin, E.V. Installation of wind turbines with vertical axis of rotation on specific engineering objects / E.V. Solomin // *Bulletin of South Ural State University. Series «Construction and Architecture»*. – Chelyabinsk: Published on by SUSU, 2010. – Vol. 11, 33(209). PAGES 47–51.
20. Solomin, E.V. Basis of methodology of development of vertical axis wind turbines / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2011 – №1. – PAGES 18–28.
21. Solomin, E.V. System of heating on the base of wind turbine and heat accumulator / A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2011 – №2. – PAGES 30–33.
22. Solomin, E.V. Development and optimizing of vertical axis wind turbines / E.V. Solomin // *Alternative Energy and Ecology*. – M.:NIIES, 2011 – №1. – PAGES 29–39.

23. Solomin, E.V. Iteration optimizing of parameters and duties of operation of vertical axis wind turbines / E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2011. – Vol. 12, 34(211). PAGES 67–71.
24. Solomin, E.V. Development of mathematic model of wind turbine 3 kW power produced by “SRC-Vertical” in Matlab / N.V. Pronin, A.S. Martyanov, E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2011. – Vol. 7, 35(211). PAGES 49–52.
25. Solomin, E.V. Methods of braking and control of wind turbine rotation speed / A.N. Kindryashev, E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2011 – №5. – PAGES 38–40.
26. Solomin, E.V. Development of Matlab mathematic model of SRC-Vertical 3 kW wind turbine / N.V. Pronin, A.S. Martyanov, E.V. Solomin // *Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2011. – Vol. 7, 35(211). PAGES 49–52.
27. Solomin, E.V. Future of the usage of small wind turbines in agriculture / E.V. Solomin // *Mechanization and electrification of agriculture*. – Moscow. – 2011. – Vol. 7. PAGES 12–15.
28. Solomin, E.V. Efficiency of autonomous energy supply of the farm / A.S. Martyanov, E.V. Solomin // *Mechanization and electrification of agriculture*. – Moscow. – 2011. – Vol. 9. PAGES 29–30.
29. Solomin, E.V. Joint scientific research of Russian and German scientists in renewable energy / E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2011 – №10. – PAGES.82–88.
30. Solomin, E.V. Photovoltaic or wind solution / E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2011 – №11. – PAGES 38–40.
31. Solomin, E.V. Scalable hybrid low power wind-solar plants / E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2012 – №2(106). – PAGES 49–60.
32. Solomin, E.V. Economic aspects of hybrid low power wind-solar plants / E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2012 – №2(106). – PAGES 71–77.
33. Solomin, E.V. Analysis of the reasons of imbalance of accumulating batteries / A.G. Vozmilov, E.V. Solomin and others // *Alternative Energy and Ecology*. – M.: NIIES, 2012 – №11(115). – PAGES 65–68.
34. Solomin, E.V. Water purification by nano-second pulses / V.V. Krymski, E.V. Solomin and others // *Alternative Energy and Ecology*. – M.: NIIES, 2012 – №11(115). – PAGES.69–74.
35. Solomin, E.V. Vertical Axis Wind Turbines. New aspects / I.M. Kirpichnikova, A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №01/2(118). – PAGES.55–58.
36. Solomin, E.V. Vertical Axis Wind Turbines. New aspects (in Russian / I.M. Kirpichnikova, A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №01/2(118). – PAGES.59–62.
37. Solomin, E.V. Electric machines of Vertical Axis Wind Turbines / A.N. Kindryashev, A.S. Martyanov, E.V. Solomin // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №01/2(118). – PAGES.59–62.
38. Solomin, E.V. Orthogonal balanced small power wind turbine / I.M. Kirpichnikova, V.M. Lyatkher, E.V. Solomin // *Bulletin of South Ural State University. Series «Energy»*. – Chelyabinsk: Published on by SUSU, 2013. – Vol.1. – №13. – PAGES.63–69.
39. Solomin, E.V. Optimization of air foil profile of orthogonal wind turbine / I.M. Kirpichnikova, V.M. Lyatkher, E.V. Solomin // *Bulletin of South Ural State University. Series «Machine building»*. – Chelyabinsk: Published on by SUSU, 2013. – Vol.1. – №13. – PAGES.112–118.
40. Solomin, E.V. Application of mechanical transmission in trucks for improvement of ecological parameters / A.V. Bakanov, E.V. Solomin and others // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №05(125). – PAGES.88–93.
41. Solomin, E.V. Autonomous energy supply of high voltage part of measuring transformer of power lines on the base of wind turbine / G.I. Volovich, E.V. Solomin and others // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №09(131). – PAGES.21–23.
42. Solomin, E.V. About the development of automation means in power engineering using the renewable energy sources / G.I. Volovich, E.V. Solomin and others // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №09(131). – PAGES.59–64.
43. Solomin, E.V. Tendencies of development of integrated approach of plants defend / A.G. Vozmilov, E.V. Solomin и др. // *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №09(131). – PAGES.65–71.

44. Solomin, E.V. Renewable energy sources. New opportunities. *Alternative Energy and Ecology*. – M.: NIIES, 2013 – №10(132). – PAGES.38–40.
45. I. M. Kirpichnikova, A. S. Martyanov, E. V. Solomin. Modeling of the generator of the wind power plant. *Electrical engineering*. - №10. - 2013. - P. 46-50. DOI: 10.3103 / S1068371213100076. – https://www.researchgate.net/publication/262891125_Simulation_of_a_generator_for_a_wind-power_unit.
46. G. M. Zeiser, E. I. Klimov, E. V. Solomin, N. and N.I. Ezhikov Problems of production and use of black sea hydrogen sulfide. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2013 - №14 (136). - P. 14-18.
47. A. G. Vozmilov, Solomin E. V., Surinsky D. O., etc. Justification of the need to combat pests (rodents) of agribusiness facilities. Analysis of technologies and technical means for scaring away and destruction. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2013 - №15 (137). - P. 69-73.
48. Vozmilov A. G., Kozlov A.V., Surin D. O., Solomin E. V., etc. Development and research of efficiency of electrolyzer to protect objects. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2013 - №15 (137). - P. 74-77.
49. Varfolomeev. Surin, O., Solomin, E. V., Vozmilov, A. G. The use of electron-ion technology in the purification of the dispersed phase of the smoke. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2013 - №16 (138). - P. 95-98.
50. G. I. Volovich, I. M. Kirpichnikova, E. V. Solomin, D. V. Topolsky, I. G. Topolskaya. Autonomous power supply of high voltage part of measuring transformer on power line on the base of wind turbines (Autonomous power supply of the high-voltage part of the measuring transformer of the power line on the basis of the wind power plant). *Alternative energy and ecology (Letters to the international scientific journal)*. - Sarov, 2014- № 01 (123). - P. 52-53.
51. Volovich G. I., Kirpichnikova I. M., Solomin E. V., Topolskaya, D. V., Topolskaya I. G. Development of automation in power engineering using renewable energy sources (the development of automation in power engineering using renewable energy sources). *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - № 1 (123). - P. 54-55.
52. Sirotkin, E. V. Solomin, et al. State of the world wind industry development. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - № 05 (145). - P. 20-25.
53. Sirotkin, E. V. Solomin, etc. The state of small wind power in the world. *International journal "Alternative energy"*. - Sarov, 2014 - № 05 (145). - P. 26-31.
54. E. V. Solomin. About the placement of wind power plants on buildings and structures. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - № 09 (149). - P. 42-45.
55. A. L. Gusev, E. V. Solomin. Wind energy in China (brief review). *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - № 17 (157). - P. 10-23.
56. E. V. Solomin. Condition of World Wind Industry Development. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - №01 (05). - P. 22-26.
57. E. V. Solomin The Status of World Small Wind Power / E. V. Solomin. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - №01 (05). - P. 27-31.
58. E. Solomin. Controlling Speed of Vertical Axis Wind Turbine. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2014 - №1 (1). - P. 32-3.
59. Kozlov, S. V. ; Kindryashov, A. N. ; Solomin, E. V. Analysis of energy storage systems efficiency. *Alternative Energy and environment (ISJAE)*, 11/05/2015, Issue 2, pp.29-34 // international scientific journal "Alternative energy and ecology". - Sarov, 2015 - №2. - P. 29-34.
60. E. V. Solomin, V. V. Dolgosheev, I. A. Vasiliev. Anti-Icing system of wind turbine blades on the basis of ultrasonic radiation. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2015 - № 05 (169). - P. 14-18. DOI: 10.15518/isjaee.2015.05.002. For citation: Solomin E. V. Dolgosheev V. V., Vasiliev I. A. RADIATION ULTRASONIC ICE PROTECTION SYSTEM FOR WIND POWER PLANT BLADE. *Alternative Energy and Ecology (ISJAE)*. 2015;(5): 19-23. (In Russ.). – <http://www.isjaee.com/jour/article/view/110>.
61. E. V. Solomin, V. V. Dolgosheev, M. A. Lartsev. Anti-Icing system of the solar module based on the infrared emitter. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2015 - № 02 (170). - P. 10-15. DOI: 10.15518 / isjaee.2015.05.002. For citation: Solomin E. V., V. Dolgosheev V. Lartsev, M. A. SOLAR PANEL the INFRARED RADIATION ICE PROTECTION SYSTEM. *Alternative Energy and Ecology (ISJAE)*. 2015;(2): 10-15. (In Russ.). – <http://www.isjaee.com/jour/article/view/1>.

62. S. V. Kozlov, A. N. Kondrashov, E. V. Solomin. Analysis of effectiveness of energy storage systems. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2015 - № 06 (170). - P. 29-34. DOI: 10.15518 / isjaee.2015.05.002. <http://elibrary.ru/item.asp?id=23735213>.
63. N. A. Pavlov, D. V. Rogachev, A. V. Sinitsky, E. V. Solomin. Autonomous power supply of objects of the Far North. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2015 - №10 (174). - P. 75-83. DOI: 10.15518 / isjaee.2015.10.007. <http://elibrary.ru/contents.asp?titleid=8395>.
64. E. V. Solomin, E. A. Sirotkin, S. V. Kozlov. Electromechanical system of emergency braking of wind power plant. *Electrical systems. Herald of MSTU.G. I. Nosova* №1(30). 2016. P. 19-23. doi 10.18503/2311-8318-2016-1(30)–19–23, <http://esik.magtu.ru/ru/21-russian/%E2%84%96-1-30-%D0%BC%D0%B0%D1%80%D1%82-2016-%D0%B3/157-19.html> ahhh!
65. D. V. Karabutov, Martyanov A. S., Solomin E. V., Sirotkin E. A. Effective methods of power control devices based on renewable energy sources. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2016 - № 11-12 (199-200). - P. 69-78. DOI: 10.15518/isjaee.2016.11–12.069–078. For citation: Korobov D. V., Martyanov A. S., Solomin E. V., Sirotkin E. A. EFFICIENT METHODS OF POWER CONTROL DEVICES BASED ON RES. *Alternative Energy and Ecology (ISJAEE)*. 2016;(11-12): 69-78. (In Russ.) – <http://www.isjaee.com/jour/article/view/788>.
66. E. V. Solomin, E. A. Sirotkin, A. A. Sirotkin. Production Technology of filtering nanofibers by means of the universal scalable installation. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2016 - № 13-14 (201-202). - P. 56-61. DOI: doi: 10.15518/isjaee.2016.13–14.056–061. For citation: Solomin E. V., Sirotkin E. A., Sirotkin A. A. THE PRODUCTION TECHNOLOGY OF SEEPAGE NANOFIBERS BY ELECTROSPINNING UNIVERSAL SCALABLE PLANT. *Alternative Energy and Ecology (ISJAEE)*. 2016;(13-14): 56-61. (In Russ.). – <http://www.isjaee.com/jour/article/view/770>.
67. E. V. Solomin, E. A. Sirotkin, Ceradsky O. V., Troitsky A. O. Overview of the global wind power industry over 2000-2016 years. *International scientific journal "Alternative energy and ecology"*. - Sarov, 2017 - № 10-12 (2017). - P. 33-44. DOI: 10.15518/isjaee.2017.10-12.033-044 ahhh! For citation: Solomin E. V., Sirotkin E. A., Seradskaya O. V., A. O. Troickiy OVERVIEW OF THE WORLD WIND INDUSTRY FOR 2000-2016. *Alternative Energy and Ecology (ISJAEE)*. 2017;(10-12): 33-44. (In Russ.) – <http://www.isjaee.com/jour/article/view/1019>.
68. E. V. Solomin, E. A. Sirotkin, E. S. Bodrova, M. S. Chinenov. Duplicate of the Electromechanical braking system of the wind power plant. *Bulletin SUSU. A Series Of "Energy"*. - Chelyabinsk: SUSU Publishing house, 2018. - Tom18. - №2. - P. 55-61.
69. Solomin E. V., Kirpichnikova I. M., R. A. Amerkhanov, Korbatov D. V., Lutovac, M., Martyanov A. S. The use of wind-hydrogen power plant in various climatic conditions. *Alternative energy and ecology (ISJAEE)*. - 2018. - №13-15. - p. 30-54. <https://doi.org/10.15518/isjaee.2018.13-15.030-054>. - <https://www.isjaee.com/jour/article/view/1386>.
70. A.A. Ibrahim, E.V. Solomin. Impacts of Voltage Dips in Doubly Fed Induction Motor for Wind Turbine Generation Systems. *Bulletin of South Ural State University. Section "Power Engineering"*. Chelyabinsk. South Ural State University. 2018. Vol 18. #4. pp.41–51. DOI: 10.14529/power180405. - <https://vestnik.susu.ru/power/issue/view/503>.
71. Ibrahim A., Miroshnichenko A.A., Solomin E.V., Gordievsky E.M., Kovalev A.A. Management Strategy on the basis of tracking the point of maximum power of the asynchronous generator of double power of the wind turbine. *Electrical systems and complexes. Information of Russian Technical Systems*. 2018. #4(41). pp.56-62. [https://doi.org/10.18503/2311-8318-2018-4\(41\)-56-62](https://doi.org/10.18503/2311-8318-2018-4(41)-56-62).
72. Romanov K.V., Motorin A.V., Solomin E.V., Kovalev A.A., Dyachenko I.I., Galeev R.G. Modeling of the thermoelectric Peltier module in a mode of generation of electricity in the environment of ANSYS Workbench. *Bulletin of Magnitogorsk state Technical University named after G.I. Nosov*. 2018. Vol.16. #4. pp. 57-64.. <https://doi.org/10.18503/1995-2732-2018-16-3-57-64>.
73. Miroshnichenko A.A., Korobov D.V., Martyanov A.S., Solomin E.V., Kulganov A.Z., Gordievsky E.M. Status of small wind in the World. *International Scientific Journal "Alternative energy and ecology"*. 2019. #1-3 (285-287). pp. 136-143.
74. Ablalar O., Ibrahim A., Kovalev A.A., Miroshnichenko A.A., Solomin E.V. The Effect of a sharp decline in voltage at double feed power asynchronous machine generation system of wind turbine. *Proceedings of the Scientific Council of the Russian Unified Energy System*. 2019. #1(80). – St. Petersburg. – pp. 122-131. <https://ntcees.ru/departments/NTO/sections/journal80.php>.

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