

#### **Address from the General Chairman**

**Zakis, Janis** 7th International Conference-workshop Compatibility and Power Electronics : CPE 2011 : Tallinn, Estonia, June 3, 2011 : student forum 2011 / p. 3

#### **Analysis of buck mode realization possibilities in quasi-Z-source DC-DC converters with voltage doubler rectifier**

**Zakis, Janis; Rankis, Ivars; Liivik, Liisa; Chub, Andrii** 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 570-575 : ill  
<http://dx.doi.org/10.1109/PowerEng.2015.7266379>

#### **Analysis of operating modes of the novel isolated interface converter for PMSG based wind turbines**

**Bisenieks, Lauris; Vinnikov, Dmitri; Zakis, Janis** POWERENG2011 : proceedings of the 2011 International Conference on Power Engineering, Energy and Electrical Drives : Torremolinos (Málaga), Spain, May 11-13, 2011 2011 / [8] p.: ill  
<https://ieeexplore.ieee.org/document/6036538>

#### **Analysis of operating modes of the step-up DC/DC converter with a commutating LC-filter**

**Zakis, Janis; Rankis, Ivars; Vinnikov, Dmitri** Технічна електродинаміка 2011 / p. 87-92 : ill  
<https://ortus.rtu.lv/science/en/publications/11242>

#### **Analysis of state-of-the-art converter topologies for interfacing of hydrogen buffer with renewable energy systems**

**Andrijanoviš, Anna; Steiks, Ingars; Zakis, Janis; Vinnikov, Dmitri** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 87-94 : ill <https://ui.adsabs.harvard.edu/abs/2011SJRP...29...87A/abstract>

#### **Analysis of switching conditions of IGBTs in modified sine wave qZSIs operated with different shoot-through control methods**

**Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis; Ott, Silver; Jalakas, Tanel** Elektronika ir elektrotehnika = Electronics and electrical engineering 2011 / p. 45-50 : ill  
[https://www.researchgate.net/publication/269779178\\_Analysis\\_of\\_Switching\\_Conditions\\_of\\_IGBTs\\_in\\_Modified\\_Sine\\_Wave\\_qZSIs\\_Operated\\_with\\_Different\\_Shoot-Through\\_Control\\_Methods](https://www.researchgate.net/publication/269779178_Analysis_of_Switching_Conditions_of_IGBTs_in_Modified_Sine_Wave_qZSIs_Operated_with_Different_Shoot-Through_Control_Methods)

#### **Asymmetrical PWM control of galvanically isolated impedance-source series resonant DC-DC converters**

**Vinnikov, Dmitri; Zakis, Janis; Chub, Andrii; Liivik, Elizaveta** 2016 10th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings : Opera Nova's Congress Center, Bydgoszcz, Poland, 29. June - 01. July, 2016 2016 / p. 341-346 : ill <https://doi.org/10.1109/CPE.2016.7544211>

#### **Bidirectional operation of the single-phase neutral-point-clamped quasi-Z-source inverter**

**Husev, Oleksandr; Zakis, Janis; Vinnikov, Dmitri; Savenko, O.** BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 221-224 : ill

#### **Comparative analysis of boost and quasi-Z-source converters as maximum power point trackers for PV panel integrated converters**

**Zakis, Janis; Rankis, Ivars; Ribickis, Leonids** Proceedings : 2014 IEEE 23rd International Symposium on Industrial Electronics (ISIE) : Grand Cevahir Hotel and Convention Center, Istanbul, Turkey, 01-04 June, 2014 2014 / p. 1991-1995 : ill

#### **Comparison of three-phase three-level voltage source inverter with intermediate dc-dc boost converter and quasi-Z-source inverter**

**Panfilov, Dmitry; Husev, Oleksandr; Blaabjerg, Frede; Zakis, Janis; Khandakji, Kamal** IET Power Electronics 2016 / p. 1238 - 1248 <https://doi.org/10.1049/iet-pel.2015.0539> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Current sensorless control algorithm for single-phase three-level NPC inverter**

Suzdalenko, Alexander; **Zakis, Janis**; Steiks, Ingars Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2014 / p. 28-33 : ill

#### **Design and implementation issues of integrated magnetics for quasi-Z-source inverters**

**Zakis, Janis; Vinnikov, Dmitri** ISEF 2011 - XV International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering : Funchal, Madeira, September 1-3, 2011 2011 / [8] p.: ill

#### **Design and implementation of flyback MPPT converter for PV-applications**

Suskis, Pavels; **Zakis, Janis; Galkin, Ilja** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 291-296 : ill

#### **Design guidelines of new step-up DC/DC converter for fuel cell powered distributed generation systems**

**Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard** 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 : proceedings] 2010 / p. 33-41 : ill

#### **Development of single-loop current sensorless control for bidirectional three-phase PWM rectifier**

Suzdalenko, Alexander; **Zakis, Janis; Husev, Oleksandr** 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 211-214 : ill

#### **Doctoral School of Energy and Geotechnology II : closing conference of the project : Pärnu, Estonia, January 12-17, 2015**

2015 [https://www.ester.ee/record=b4448632\\*est](https://www.ester.ee/record=b4448632*est)

#### **Dynamic behaviour of qZS-based bi-directional DC/DC converter in supercapacitor charging mode [Electronic resource]**

**Zakis, Janis; Vinnikov, Dmitri; Husev, Oleksandr; Rankis, Ivars** SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 764-768 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264554>

#### **11th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 16-21, 2012**

2012 [http://www.ester.ee/record=b2741953\\*est](http://www.ester.ee/record=b2741953*est)

#### **Evaluation of control solution for grid inverter of low power wind turbine for implementation with inexpensive hardware**

Galkin, Ilja; **Zakis, Janis** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 297-302 : ill

#### **Experimental study of high step-up quasi-Z-source DC-DC converter with synchronous rectification**

**Liivik, Liisa; Chub, Andrii; Vinnikov, Dmitri; Zakis, Janis** 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 409-414 : ill <http://dx.doi.org/10.1109/CPE.2015.7231110>

#### **Experimental study of shoot-through control methods for qZSI-based DC/DC converters [Electronic resource]**

**Roasto, Indrek; Vinnikov, Dmitri; Jalakas, Tanel; Zakis, Janis; Ott, Silver** SPEEDAM 2010 : International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Pisa, Italy, 14th-16th June, 2010 : proceedings 2010 / p. 29-34 : [CD-ROM] <https://ieeexplore.ieee.org/document/5542046>

#### **Experimental verification of light electric vehicle charger multiport topology**

**Jalakas, Tanel; Zakis, Janis** 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 415-418 : ill <http://dx.doi.org/10.1109/CPE.2015.7231111>

#### **Experimental verification of novel bi-directional qZSI based DC/DC converter for short term energy storage systems [Electronic resource]**

**Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Ribickis, Leonids** International Conference on Renewable Energies and Power Quality (ICREPQ'11) : Las Palmas de Gran Canaria (Spain), 13th to 15th April 2011 2011 / [5] p. : ill. [CD-ROM] <https://www.icrepq.com/icrepq%2711/550-zakis.pdf>

#### **Feasibility study of flexible systems for reactive power compensation**

**Zakis, Janis; Vinnikov, Dmitri; Laugis, Juhan; Rankis, Ivars** Технічна електродинаміка 2010 / 2, p. 16-21 : ill <https://ortus.rtu.lv/science/en/publications/11210>

#### **Feasibility study of inductor coupling in three-level neutral-point-clamped quasi-Z-source DC/AC converter**

**Zakis, Janis; Husev, Oleksandr; Strzelecki, Ryszard** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 273-276 : ill

#### **14th International Symposium "Topical Problems in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology. II" : Pärnu, Estonia, January 13-18, 2014**

2014 [http://www.ester.ee/record=b3050698\\*est](http://www.ester.ee/record=b3050698*est)

#### **Full soft-switching bidirectional isolated current-fed dual inductor push-pull DC-DC converter for battery energy storage applications [Online resource]**

**Kosenko, Roman; Zakis, Janis; Blinov, Andrei; Chub, Andrii; Veligorskyi, Oleksandr** 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [8] p. : ill <https://doi.org/10.1109/RTUCON.2016.7763138>

#### **Impact of component losses on the efficiency of a new quasi-Z-source based dual active bridge**

**Beldjajev, Viktor; Roasto, Indrek; Zakis, Janis** Technological innovation for the Internet of things : 4th IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical and Industrial Systems : DoCEIS 2013 : Costa de Caparica, Portugal, April 15-17, 2013 : proceedings 2013 / p. 485-492 : ill [https://doi.org/10.1007/978-3-642-37291-9\\_52](https://doi.org/10.1007/978-3-642-37291-9_52) [Article collection metrics at Scopus](#) [Article at Scopus](#)

#### **Impact of component losses on the efficiency of the LC-filter based dual active bridge for the isolation stage of power electronic transformer [Electronic resource]**

**Beldjajev, Viktor; Lehtla, Tõnu; Zakis, Janis** CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 132-137 : ill [CD-ROM]

**Implementation of a web-based remote control system for qZS DAB application using low-cost ARM platform**

Korzeniewski, Marek; Kulikowski, Krzysztof; **Zakis, Janis**; Jasiński, Marek Tomasz; Malinowski, Aleksander Bulletin of the Polish Academy of Sciences: Technical Sciences 2016 / p. 887-896 <https://doi.org/10.1515/bpasts-2016-0097> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Implementation possibilities of SMD capacitors for high power applications**

**Zakis, Janis; Vinnikov, Dmitri** Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and The 1st Congress of World Engineers and Riga Polytechnical Institute : RTU Alumni, Paper 31 of Subsection of Power Electronic Converters and Applications 2012 / 6 p. : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

**Implementation possibilities of SMD capacitors for high power applications**

**Zakis, Janis; Vinnikov, Dmitri** Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and the 1st Congress of World Engineers and Riga Polytechnical Institute/RTU Alumni : 11-12 October 2012, Riga, Latvija : [abstracts] 2012 / p. 128 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

**Implementation possibilities of SMD capacitors for high power applications**

**Zakis, Janis; Vinnikov, Dmitri** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2012 / p. 18-23 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

**Improved switched-inductor quasi-switched-boost inverter with low input current ripple**

**Chub, Andrii; Liivik, Liisa; Zakis, Janis; Vinnikov, Dmitri** 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 221-226 : ill

**Investigation of radiated emissions of a galvanically isolated qZS DC-DC converter**

**Jalakas, Tanel; Jarkovoi, Marek; Roasto, Indrek; Zakis, Janis**; Garganev, Alexander 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 176-181 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266314>

**Investigation of supercapacitor bidirectional power flow system**

Rankis, Ivars; **Zakis, Janis** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering = Rīgas Tehniskās universitātes zinātniskie raksti. Serija 4. Energētika un elektrotehnika 2012 / p. 35-40 : ill <https://ortus.rtu.lv/science/en/publications/13864>

**Isolated DC/DC converter based voltage measuring system for series connected supercapacitor cells**

Sirmelis, Ugis; Grigans, Linards; Kroics, Kaspars; **Zakis, Janis** 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 443-446 : ill <http://dx.doi.org/10.1109/CPE.2015.7231116>

**Isolation stage for power electronic transformer : dual active bridge vs bi-directional current doubler rectifier [Electronic resource]**

**Beldjajev, Viktor; Roasto, Indrek; Zakis, Janis** SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 849-854 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264545>

**LCCT-derived three-level three-phase inverters**

**Shults, Tatiana; Husev, Oleksandr**; Blaabjerg, Frede; **Zakis, Janis**; Khandakji, Kamal IET power electronics 2017 / p. 996-1002 <https://doi.org/10.1049/iet-pel.2016.0023> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Loss reduction method for the isolated qZS-based DC/DC converter**

**Zakis, Janis**; Rankis, Ivars; **Liivik, Liisa** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 13-18 : ill

**Mathematical models of cascaded quasi-impedance source converter**

**Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis** Технічна електродинаміка 2010 / 1, p. 59-64 : ill <https://ortus.rtu.lv/science/lv/publications/11212>

**Multiphase interleaved DC-DC converter with directly and inversely coupled inductors [Online resource]**

Kroics, Kaspars; **Zakis, Janis**; Sirmelis, Ugis 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [6] p. : ill <https://doi.org/10.1109/RTUCON.2016.7763102>

**New active clamp circuit for current-fed galvanically isolated DC/DC converters [Electronic resource]**

**Zakis, Janis; Vinnikov, Dmitri**; Kolosov, Valery; Vasechko, Evgen CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 353-358 : ill [CD-ROM]

### **New bi-directional DC/DC converter for supercapacitor interfacing in high-power applications**

**Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis** EPE-PEMC 2010 : 14th International Power Electronics and Motion Control Conference : 6-8 September 2010, Ohrid, Republic of Macedonia 2010 / p. T11-38 - T11-43 : ill [https://www.researchgate.net/publication/224184374\\_New\\_bi-directional\\_DCDC\\_converter\\_for\\_supercapacitor\\_interfacing\\_in\\_high-power\\_applications](https://www.researchgate.net/publication/224184374_New_bi-directional_DCDC_converter_for_supercapacitor_interfacing_in_high-power_applications)

### **New high-gain step-up DC/DC converter with high-frequency isolation**

**Vinnikov, Dmitri; Zakis, Janis; Husev, Oleksandr;** Strzelecki, Ryszard 2012 Twenty-Seventh Annual IEEE Applied Power Electronics Conference and Exposition (APEC), Orlando (FL), USA, 5-9 Feb. 2012 / p. 1204-1209 : ill <https://ieeexplore.ieee.org/document/6165972>

### **New shoot-through control methods for qZSI-based DC/DC converters**

**Roasto, Indrek; Vinnikov, Dmitri; Zakis, Janis; Husev, Oleksandr** IEEE transactions on industrial informatics 2013 / p. 640-647 : ill <https://doi.org/10.1109/TII.2012.2224353> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Operation possibility of grid connected quasi-Z-source inverter with energy storage and renewable energy generation in wide power range**

Kroics, Kaspars; **Zakis, Janis;** Suzdalenko, Alexander; **Husev, Oleksandr;** Tytelmaier, Kostiantyn; Khandakji, Kamal 2017 IEEE First Ukraine Conference on Electrical and Computer Engineering (UKRCON) : May 29 - June 2, 2017, Kyiv, Ukraine : conference proceedings 2017 / p. 564-569 : ill <https://doi.org/10.1109/UKRCON.2017.8100303>

### **Optimal supercapacitor energy storage system sizing for traction substations**

Sirmelis, Ugis; **Zakis, Janis;** Grigans, Linards 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 592-595 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266383>

### **An Overview of bidirectional AC-DC grid connected converter topologies for low voltage battery integration**

Kroics, Kaspars; **Husev, Oleksandr;** Tytelmaier, Kostiantyn; **Zakis, Janis;** Veligorskyi, Oleksandr International Journal of Power Electronics and Drive System (IJPEDS) 2018 / p. 1223-1239 : ill <https://doi.org/10.11591/ijpeds.v9.i3.pp1223-1239>

### **Overview of impedance source networks for voltage source inverters**

**Shults, Tatiana; Husev, Oleksandr; Zakis, Janis** 2015 16th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices (EDM 2015) : Erlagol (Altai Republic), Russia, 29 June-3 July 2015 / p. 514-520 : ill

### **Passive power decoupling approach for three-level single-phase impedance source inverter based on resonant and PID controllers**

**Makovenko, Elena; Husev, Oleksandr; Zakis, Janis;** Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 / p. 516-521 : ill <https://doi.org/10.1109/CPE.2017.7915225>

### **Performance comparison of boost and quasi-Z-source converters**

**Andrijanovičs, Anna;** Rankis, Ivars; **Zakis, Janis** Технічна електродинаміка : тематичний випуск : силова електроніка та енергоефективність 2012 / p. 30-35 : ill <https://ortus.rtu.lv/science/en/publications/16524>

### **Practical design guidelines of qZSI based step-up DC/DC converter**

**Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2010 / p. 107-114 : ill [https://www.researchgate.net/publication/258448386\\_Practical\\_Design\\_Guidelines\\_of\\_qZSI\\_Based\\_Step-Up\\_DCDC\\_Converter](https://www.researchgate.net/publication/258448386_Practical_Design_Guidelines_of_qZSI_Based_Step-Up_DCDC_Converter)

### **PWM for single phase 3L Z/qZ-Source inverter with balanced power losses**

Roncero-Clemente, Carlos; **Husev, Oleksandr; Jalakas, Tanel;** Romero-Cadaval, Enrique; **Zakis, Janis;** Minambres-Marcos, Victor Elektronika ir elektrotehnika = Electronics and electrical engineering 2014 / p. 71-76 : ill <https://doi.org/10.5755/j01.eee.20.6.7270> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **qZS-based soft-switching DC/DC converter with a series resonant LC circuit**

**Vinnikov, Dmitri; Zakis, Janis; Liivik, Liisa;** Rankis, Ivars Энергосбережение, энергетика, энергоаудит = Energy saving, power engineering, energy audit 2013 / p. 42-50 : ill

### **QZS-based soft-switching DC/DC converter with a series resonant LC circuit [Electronic resource]**

**Vinnikov, Dmitri; Zakis, Janis; Liivik, Liisa;** Rankis, Ivars Международная Научно-Техническая Конференция "Силовая Электроника и Энергоэффективность" : 23-27.IX 2013, Алушта, Крым 2013 / [3] p. : ill [CD-ROM]

### **Quasi-Z-source half-bridge DC-DC converter for photovoltaic applications**

**Vinnikov, Dmitri; Chub, Andrii; Husev, Oleksandr; Zakis, Janis** 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 / p. 2935-2940 : ill <https://doi.org/10.1109/ICIT.2015.7125531> [Conference](#)

[proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Quasi-Z-source inverter based bi-directional DC/DC converter : analysis of experimental results [Electronic resource]**

**Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek;** Ribickis, Leonids CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 394-399 [CD-ROM]  
[https://www.researchgate.net/publication/224245116\\_Quasi-Z-source\\_inverter\\_based\\_bi-directional\\_DCDC\\_converter\\_Analysis\\_of\\_experimental\\_results](https://www.researchgate.net/publication/224245116_Quasi-Z-source_inverter_based_bi-directional_DCDC_converter_Analysis_of_experimental_results)

**Simulation study of high step-up quasi-Z-source DC-DC converter with synchronous rectification**

**Liivik, Liisa; Vinnikov, Dmitri; Zakis, Janis** 2014 55th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon) : proceedings 2014 / p. 34-37 : ill

**Simulation study of the grid-connected single-phase impedance-sourced NPC inverter with different control methods**

Roncero-Clemente, Carlos; **Husev, Oleksandr;** Romero-Cadaval, Enrique; **Zakis, Janis; Vinnikov, Dmitri;** Milanes-Montero, Maria Isabel 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2949-2954 : ill <https://doi.org/10.1109/ICIT.2015.7125533> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Simulation study of the three-level boost DC-DC converter with full ZVS for PV application**

Vorobei, Vasiliy; **Zakis, Janis; Husev, Oleksandr;** Veligorskyi, Oleksandr; Savenko, Oleksandr ICPE 2015 - ECCE Asia : 9th International Conference on Power Electronics - ECCE Asia : "Green World with Power Electronics" : June 1-5, 2015, 63 Convention Center, Seoul, Korea 2015 / p. 2038-2043 : ill <http://dx.doi.org/10.1109/ICPE.2015.7168058>

**16th International Symposium "Topical Problems in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology III" : Pärnu, Estonia, January 16-21, 2017**

2017 [http://www.ester.ee/record=b4650094\\*est](http://www.ester.ee/record=b4650094*est)

**Soft-switching capability analysis of a qZSI-based DC/DC converter**

**Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek** BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 301-304 : ill

**Some design considerations for coupled inductors for integrated buck-boost converters**

**Zakis, Janis; Vinnikov, Dmitri; Bisenieks, Lauris** POWERENG2011 : proceedings of the 2011 International Conference on Power Engineering, Energy and Electrical Drives : Torremolinos (Málaga), Spain, May 11-13, 2011 2011 / [6] p. : ill  
<https://ieeexplore.ieee.org/abstract/document/6036465>

**Steady state analysis of the commutating LC filter based dual active bridge for the isolation stage of power electronic transformer [Electronic resource]**

**Beldjajev, Viktor; Rang, Toomas; Zakis, Janis** CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 138-143 : ill [CD-ROM]

**Steady state analysis of the galvanically isolated DC/DC converter with a commutating LC filter [Electronic resource]**

**Zakis, Janis; Vinnikov, Dmitri;** Rankis, Ivars 2012 IEEE International Conference on Industrial Technology : proceedings CD 2012 / p. 838-843 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6210041>

**Study of simple MPPT converter topologies for grid integration of photovoltaic systems**

**Zakis, Janis; Vinnikov, Dmitri** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 67-72 : ill  
[https://www.researchgate.net/publication/258547430\\_Study\\_of\\_Simple\\_MPPT\\_Converter\\_Topologies\\_for\\_Grid\\_Integration\\_of\\_Photovoltaic\\_Systems](https://www.researchgate.net/publication/258547430_Study_of_Simple_MPPT_Converter_Topologies_for_Grid_Integration_of_Photovoltaic_Systems)

**Survey of loss minimization methods in tram systems [Electronic resource]**

**Hõimoja, Hardi; Vinnikov, Dmitri; Lehtla, Madis; Rosin, Argo; Zakis, Janis** SPEEDAM 2010 : International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Pisa, Italy, 14th-16th June, 2010 : proceedings 2010 / p. 1356-1361 : [CD-ROM] <https://ieeexplore.ieee.org/document/5544863>

**Switched-capacitor current-fed quasi-Z-source inverter**

**Chub, Andrii; Husev, Oleksandr; Zakis, Janis;** Rabkowski, Jacek BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 229-232 : ill

**Tehnikaülilikoolil on tõmmet**

Ummelas, Mart Mente et Manu 2009 / lk. 1, 4 : fot

**7th International Conference-workshop Compatibility and Power Electronics : CPE 2011 : Tallinn, Estonia, June 3, 2011 : student forum**

2011 [https://www.ester.ee/record=b2695380\\*est](https://www.ester.ee/record=b2695380*est)

**13th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : in memoriam of professor Juhan Laugis : Pärnu, Estonia, January 14-19, 2013**

2013 [http://www.eester.ee/record=b2925939\\*est](http://www.eester.ee/record=b2925939*est)

**Verification of current sensorless control for single-phase NPC multilevel inverter**

Suzdalenko, Alexander; **Zakis, Janis**; Steiks, Ingars; Chaiko, Yelena 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 462-466 : ill <http://dx.doi.org/10.1109/CPE.2015.7231119>

**Voltage balancing circuit for modular step-down DC/DC converter**

Uljans, Austris; **Zakis, Janis** 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 329-332 : ill