

### **Control scheme of a Three-Phase Three-Level NPC qZ-Source inverter with LCL filter for RES applications**

Roncero-Sanches, Pedro; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Makovenko, Elena**

Proceedings of the IECON 2016 - 42nd Annual Conference of the IEEE Industrial Electronics Society : Florence, Italy, October 24-27 2016 2016 / p. 6540-6547 <https://doi.org/10.1109/IECON.2016.7793338> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Digital control strategy for interleaved quasi-Z-source inverter with active power decoupling**

**Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Makovenko, Elena**

IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 3725-3730 : ill

### **Modified DQ control approach for three-phase inverter**

**Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri** 2017 IEEE 58th

International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [3] p. : ill <http://dx.doi.org/10.1109/RTUCON.2017.8124800>

### **New interleaved single-phase quasi-Z-source inverter with active power decoupling**

**Stepenko, Serhii; Roncero-Clemente, Carlos; Husev, Oleksandr; Makovenko, Elena; Pires Pimentel, Sergio; Vinnikov, Dmitri**

2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 437-442 : ill <https://doi.org/10.1109/CPE.2018.8372558>

### **Novel quasi-Z-source derived inverter with unfolding circuit and battery storage**

**Makovenko, Elena; Husev, Oleksandr; Vinnikov, Dmitri** 2018 IEEE 12th International Conference on Compatibility, Power

Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 431-436 : ill <https://doi.org/10.1109/CPE.2018.8372557>

### **Optimization and implementation of the proportional-resonant controller for grid-connected inverter with significant computation delay**

**Husev, Oleksandr; Roncero-Clemente, Carlos; Makovenko, Elena; Pires Pimentel, Sergio; Vinnikov, Dmitri; Martins, Joao**

IEEE transactions on industrial electronics 2020 / p. 1201 -1211 <https://doi.org/10.1109/TIE.2019.2898616> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Overview of advanced functionalities for residential photovoltaic inverter connected to the grid**

**Makovenko, Elena; Husev, Oleksandr; Romero-Cadaval, Enrique** 17th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral school of energy and geotechnology. III : Kuressaare, Estonia, January 15-20, 2018 2018

/ p. 99-102 : ill [http://ise.elnet.ee/record=b2950024~S2\\*est](http://ise.elnet.ee/record=b2950024~S2*est)

### **Overview of control methods of DC-AC grid connected converter**

**Makovenko, Elena; Husev, Oleksandr** 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 / p. 69-71 : ill [http://www.ester.ee/record=b4650094\\*est](http://www.ester.ee/record=b4650094*est)

### **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 2017 / p. 516-521 : ill <https://doi.org/10.1109/CPE.2017.7915225>

### **qZS inverter as synchronverter in small-scale micro-grid**

**Zakis, Janis; Makovenko, Elena; Zeng, Hao; Husev, Oleksandr; Kütt, Lauri** Elektronika ir elektrotehnika = Electronics and

electrical engineering 2018 / p. 58-62 : ill <https://doi.org/10.5755/j01.eie.24.2.20636> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Review of novel topologies for PV applications**

**Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique** Technological innovation for cyber-

physical systems : 7th IFIP WG 5.5/SOCOLNET Advanced Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2016, Costa de Caparica, Portugal, April 11-13, 2016 : proceedings 2016 / p. 369-377 : ill [https://doi.org/10.1007/978-3-319-31165-4\\_35](https://doi.org/10.1007/978-3-319-31165-4_35) [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Single-phase 3L PR controlled qZS inverter connected to the distorted grid**

**Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Blaabjerg, Frede** 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. 234-239 : ill <https://doi.org/10.1109/CPE.2016.7544191>

### **Single-phase qZS-based PV inverter with integrated battery storage for distributed energy generation**

**Husev, Oleksandr; Makovenko, Elena; Vinnikov, Dmitri; Jalakas, Tanel** 2018 IEEE 12th International Conference on

Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 508-513 : ill <https://doi.org/10.1109/CPE.2018.8372570>

**Single-phase three-level qZ-source inverter connected to the grid with battery storage and active power decoupling function**

**Makovenko, Elena; Husev, Oleksandr;** Romero-Cadaval, Enrique; **Vinnikov, Dmitri; Stepenko, Serhii** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659843>

**Small signal modeling of interleaved quasi-z-source inverter with active power decoupling circuit**

**Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Makovenko, Elena; Vinnikov, Dmitri** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659903>

**Small signal modeling of interleaved quasi-z-source inverter with active power decoupling circuit**

**Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Makovenko, Elena; Vinnikov, Dmitri** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659903>

**Three-level single-phase quasi-Z source inverter with active power decoupling circuit**

**Makovenko, Elena; Husev, Oleksandr;** Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** 18th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices : proceedings : Erlagol, Altai - 29 June - 3 July, 2017 2017 / p. 497-502 : ill <https://doi.org/10.1109/EDM.2017.7981804>

**Voltage control tuning of a single-phase grid-Connected 3L qZS-based inverter for PV application**

**Pires Pimentel, Sergio; Husev, Oleksandr; Vinnikov, Dmitri;** Roncero-Clemente, Carlos; **Makovenko, Elena** 2018 IEEE 38th International Conference on Electronics and Nanotechnology (ELNANO 2018) : Kyiv, Ukraine, 24-26 April 2018 2018 / p. 692–698 : ill <https://doi.org/10.1109/ELNANO.2018.8477438>