

**Analysis of cost function composition based on the horizon time prediction of an indirect MPC current control in single-phase grid-connected PV inverters**

**Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii** 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982377>

**A comparison of a discrete-time PI and an indirect MPC current controllers for a single-phase grid-connected inverter operating with distorted grid and significant computation feedback delay**

**Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii; Kütt, Lauri; Rodriguez, Jose** 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC) 2019 / 6 p.: ill <https://doi.org/10.1109/COBEP/SPEC44138.2019.9065396>

**Distorted grid and significant computation feedback delay**

**Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii; Kütt, Lauri; Rodriguez, Jose** 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC 2019) Santos, Brazil, 1-4 December 2019 2019 / p. 1481-1486 <http://toc.proceedings.com/52923webtoc.pdf>

**Experimental comparison of two-level full-SiC and three-level Si-SiC quasi-Z-source inverters for PV applications**

**Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Pimentel, Sergio Pires; Santasheva, Elena** Emerging converter topologies and control for grid connected photovoltaic systems 2021 / P. 121-137 : ill <https://doi.org/10.3390/books978-3-03943-910-2>

**Experimental efficiency and thermal parameters evaluation in Full-SiC Quasi-Z-Source inverter**

**Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Pires Pimentel, Sergio; Prystupa, Anatoliy** 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982288>

**Indirect model predictive control for inverter connected to distorted grid with significant computation delay**

**Husev, Oleksandr; Pimentel, Sergio Pires; Vinnikov, Dmitri; Kütt, Lauri; Rodriguez, Jose** IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 6483-6488 : ill <https://doi.org/10.1109/IECON.2019.8927279>