

## 研究業績 (2019年03月31日)

LE HOAI NAM

### 【査読付き学術論文 Review Papers】 5件

- [1] **Hoai Nam Le**, Koji Orikiawa and Jun-ichi Itoh, "Circuit-Parameter-Independent Nonlinearity Compensation for Boost Converter Operated in Discontinuous Current Mode," in *IEEE Transactions on Industrial Electronics*, vol. 64, no. 2, pp. 1157-1166, Feb. 2017.
- [2] **Hoai Nam Le** and Jun-ichi Itoh, "Wide-Load-Range Efficiency Improvement for High-Frequency SiC-Based Boost Converter With Hybrid Discontinuous Current Mode," in *IEEE Transactions on Power Electronics*, vol. 33, no. 2, pp. 1843-1854, Feb. 2018.
- [3] **Hoai Nam Le** and Jun-ichi Itoh, "Inductance-Independent Nonlinearity Compensation for Single-Phase Grid-Tied Inverter Operating in both Continuous and Discontinuous Current Mode," in *IEEE Transactions on Power Electronics*. (In press)
- [4] **Hoai Nam Le** and Jun-ichi Itoh, "Discontinuous Current Mode Control for Minimization of Three-phase Grid-Tied Inverters in Photovoltaic System," in *IEEJ Journal of Industry Applications*, vol. 8, no. 1, pp. 90-97, Jan. 2019.
- [5] Jun-ichi Itoh, Tomokazu Sakuraba, **Hoai Nam Le**, Hiroki Watanabe and Keisuke Kusaka, "DC to Single-Phase AC Grid Connected Inverter with Boost Type Active Buffer Circuit Operated in Discontinuous Current Mode," in *IEEJ Transactions on Industry Application*, vol. 138, no. 5, pp. 453-462, Jan. 2018.

### 【査読付き国際会議論文 International Conference Papers】 14件

- [1] **Hoai Nam Le**, Koji Orikiawa and Jun-ichi Itoh, "DCM control method of boost converter based on conventional CCM control," *2014 International Power Electronics Conference (IPEC-Hiroshima 2014 - ECCE ASIA)*, Hiroshima, 2014, pp. 3659-3666.
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- [3] **Hoai Nam Le**, Koji Orikiawa and Jun-ichi Itoh, "Clarification of relationship between current ripple and power density in bidirectional DC-DC

converter," *2016 IEEE Applied Power Electronics Conference and Exposition (APEC)*, Long Beach, CA, 2016, pp. 1911-1918.

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- [5] **Hoai Nam Le** and Jun-ichi Itoh, "Current THD reduction for grid-connected inverter operating in discontinuous current mode," *2016 IEEE International Conference on Sustainable Energy Technologies (ICSET)*, Hanoi, 2016, pp. 270-275.
- [6] **Hoai Nam Le** and Jun-ichi Itoh, "Current THD reduction for high-power-density LCL-filter-based grid-tied inverter operated in discontinuous current mode," *2017 19th European Conference on Power Electronics and Applications (EPE'17 ECCE Europe)*, Warsaw, 2017, pp. 1-10.
- [7] **Hoai Nam Le** and Jun-ichi Itoh, "Mixed conduction mode control for inductor minimization in grid-tied inverter," *2017 IEEE 12th International Conference on Power Electronics and Drive Systems (PEDS)*, Honolulu, HI, 2017, pp. 893-900.
- [8] **Hoai Nam Le** and Jun-ichi Itoh, "Discontinuous Current Mode Control for Minimization of Three-phase Grid-Tied Inverter in Photovoltaic System," *2018 International Power Electronics Conference (IPEC-Niigata 2018 -ECCE Asia)*, Niigata, Japan, 2018, pp. 2519-2526.
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- [10] Jun-ichi Itoh, Tomokazu Sakuraba, **Hoai Nam Le** and Keisuke Kusaka, "Requirements for circuit components of single-phase inverter applied with power decoupling capability toward high power density," *2016 18th European Conference on Power Electronics and Applications (EPE'16 ECCE Europe)*, Karlsruhe, 2016, pp. 1-10.
- [11] Ayato Sagehashi, **Hoai Nam Le** and Jun-ichi Itoh, "One-inductor single-stage differential boost inverter operated in discontinuous current mode for single-phase grid-tied photovoltaic system," *2018 IEEE Applied Power Electronics Conference and Exposition (APEC)*, San Antonio, TX, 2018, pp. 2617-2624.
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Operated in Discontinuous Current Mode and Critical Current Mode," *2018 IEEE Energy Conversion Congress and Exposition (ECCE)*, Portland, OR, 2018, pp. 155-161.

- [13] Akiyoshi Omomo, Jun-ichi Itoh, Keisuke Kusaka, Nagisa Takaoka and **Hoai Nam Le**, "T-type NPC Inverter with Active Power Decoupling Method using Discontinuous Current Mode for Micro-Inverter," *2018 7th International Conference on Renewable Energy Research and Applications (ICRERA)*, Paris, 2018, pp. 1147-1152.
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- [10] 提橋郁人, レホアイナム, 伊東淳一: 「電流不連続モードを用いた入出力電位が共通な DC-AC コンバータの動作検証」, 電子デバイス/半導体電力変換合同研究会, EDD-17-068, SPC-17-167, pp. 87-92, 2017.
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#### 【受賞歴】2 件

2017 年 03 月 長岡技術科学大学 学術論文賞  
2019 年 03 月 長岡技術科学大学 表彰状