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PROFESSIONAL APPOINTMENTS

- **Assistant Professor** (2020.3–Present)
Shien-Ming Wu School of Intelligent Engineering,
South China University of Technology, Guangzhou, China
- **Post-doctoral Fellow, under the UM Macao Talent Program** (2019.1–2020.2)
State Key Laboratory of Analog and Mixed-Signal VLSI,
University of Macau, Macao, China

ACADEMIC QUALIFICATIONS

- **PhD** in Power Electronics (2018)
The Hong Kong Polytechnic University, Hong Kong, China
- **MPhil** in Mechanical and Electronic Engineering (2013)
Huazhong University of Science and Technology, Wuhan, China
- **BSc** in Electrical Engineering and Automation (2010)
Huazhong University of Science and Technology, Wuhan, China

FEATURED PUBLICATIONS

Patents:

2. **Zhicong Huang**, Chi-Seng Lam, Pui-In Mak and Rui P. Martins, “Wireless charging circuit and system,” Application No. 16711465, US Patent, Pending Application.
1. **黄智聪**, 林智声, 麦沛然, 马许愿. 无线充电电路和系统 [P]. 中国发明专利, 申请号 201911279433.4.

Journal Papers:

9. **Zhicong Huang***, Chi-Seng Lam, Pui-In Mak, Rui P. Martins, Siu-Chung Wong and Chi K. Tse, “A single-stage inductive-power-transfer converter for constant-power and maximum-efficiency battery charging,” *IEEE Transactions on Power Electronics*, in press. (**Patent Design**)
8. Zhijian Fang, **Zhicong Huang***, Hang Jing and Fei Liu, “Hybrid mode-hopping modulation for LLC resonant converter achieving high efficiency and linear behavior,” *IET Power Electronics*, vol. 13, no. 6, pp. 1153–1162, May 2020.
7. **Zhicong Huang***, Zhijian Fang, Chi-Seng Lam, Pui-In Mak and Rui P. Martins, “Cost-effective compensation design for output customization and efficiency optimization in series/series-parallel inductive power transfer converter,” *IEEE Transactions on Industrial Electronics*, in press.

6. **Zhicong Huang***, Siu-Chung Wong, and Chi K. Tse, “Comparison of basic inductive power transfer systems with linear control achieving optimized efficiency,” *IEEE Transactions on Power Electronics*, vol. 35, no. 3, pp. 3276–3286, Mar. 2020.
5. **Zhicong Huang***, Siu-Chung Wong, and Chi K. Tse, “An inductive-power-transfer converter with high efficiency throughout battery-charging process,” *IEEE Transactions on Power Electronics*, vol. 34, no. 10, pp. 10245–10255, Oct. 2019.
4. Xiaohui Qu*, Haijun Chu, **Zhicong Huang**, Siu-Chung Wong, Chi K. Tse, Chunting Chris Mi and Xi Chen, “Wide design range of constant output current using double-sided LC compensation circuits for inductive power transfer applications,” *IEEE Transactions on Power Electronics*, vol. 34, no. 3, pp. 2364–2374, Mar. 2019.
3. **Zhicong Huang**, Siu-Chung Wong*, and Chi K. Tse, “Control design for optimizing efficiency in inductive power transfer systems,” *IEEE Transactions on Power Electronics*, vol. 33, no. 5, pp. 4523–4534, May 2018.
2. **Zhicong Huang**, Siu-Chung Wong*, and Chi K. Tse, “Design of a single-stage inductive-power-transfer converter for efficient EV battery charging,” *IEEE Transactions on Vehicular Technology*, vol. 66, no. 7, pp. 5808–5821, Jul. 2017.
1. **Zhicong Huang**, Siu-Chung Wong*, and Chi K. Tse, “Revisiting stability criteria for DC power distribution systems based on power balance,” *CPSS Transactions on Power Electronics and Applications*, vol. 2, no. 1, Mar. 2017. (**Invited Paper**)

Conference Papers:

6. **Zhicong Huang**, Io Wa Iam, Iok U Hoi, Chi-Seng Lam, Pui-In Mak and Rui P. Martins, “Self-contained solar-powered inductive power transfer system for wireless electric vehicle charging,” in Proceedings, *IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, Macao, China, 2019, accepted. (**Best Track Paper Award**)
5. **Zhicong Huang**, Zhijian Fang, Chi-Seng Lam, Pui-In Mak and Rui P. Martins, “Design of series/series-parallel compensated inductive power transfer converter as wireless grid to vehicle interface,” in Proceedings, *IEEE Vehicle Power and Propulsion Conference (VPPC)*, Hanoi, Vietnam, 2019, accepted.
4. **Zhicong Huang**, Zhijian Fang, Chi-Seng Lam, Pui-In Mak and Rui P. Martins, “Efficiency optimization of series/series-parallel IPT system with load-independent output voltage and zero input phase angle,” in Proceedings, *IEEE Energy Conversion Congress and Exposition (ECCE)*, Baltimore, MD, USA, 2019, pp. 3358–3362.
3. Zhijian Fang, **Zhicong Huang**, Hang Jing, Guozhen Hu, Junhua Wang and Liang Tao, “A novel modulation method of LLC resonant converter with linear model and high efficiency,” in Proceedings, *IEEE Energy Conversion Congress and Exposition (ECCE)*, Baltimore, MD, USA, 2019, pp. 5152–5155.
2. **Zhicong Huang**, Siu-Chung Wong, and Chi K. Tse, “Fast linear control for maximum energy efficiency of wireless power transfer systems,” in Proceedings, *International Future Energy Electronics Conference and ECCE Asia (IFEEC 2017 - ECCE Asia)*, Kaohsiung, Taiwan, 2017, pp. 19–24.
1. **Zhicong Huang**, Siu-Chung Wong, and Chi K. Tse, “Design methodology of a series-series inductive power transfer system for electric vehicle battery charger application,” in Proceedings, *IEEE Energy Conversion Congress and Exposition (ECCE)*, Pittsburgh, PA, USA, 2014, pp.

1778-1782.

SUPERVISION

- **Io-Wa Iam** (2019–2020, BSc, University of Macau)
Research Topic:
- **Iok-U Hoi** (2019–2020, BSc, University of Macau)
Research Topic:
- **Ka-Weng Lei** (2018–2019, BSc, University of Macau)
Research topic: wireless inductive power transfer system for battery charging.
In recognition of *Dean's Final Year Project List 2018/2019*.

PROFESSIONAL SERVICE

Peer Review:

- IEEE Transactions on Power Electronics
- IEEE Transactions on Industrial Electronics
- IEEE Journal of Emerging and Selected Topics in Power Electronics
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Circuits and Systems II: Express Briefs
- IEEE Transactions on Transportation Electrification
- International Journal of Circuit Theory and Applications

Conference Chairing:

- The 46th Annual Conference of the IEEE Industrial Electronics Society, 2020
- The 11th IEEE PES Asia-Pacific Power and Energy Engineering Conference, 2019