

HUANG Chao

Affiliation: State Key Laboratory of Internet of Things for Smart City, University of Macau

Email: chao.huang@my.cityu.edu.hk

Research Interests

Machine Learning, Computational Intelligence, and Energy Informatics

Education

City University of Hong Kong, Hong Kong SAR, China (2014-2017)

Ph.D. in Systems Engineering and Engineering Management

Université de Technologie de Compiègne, France (2011-2013)

M.Phil. in Intelligent Systems for Transport

Harbin Institute of Technology, China (2007-2011)

B.Eng. in Electrical Engineering and Automation

Appointments

Postdoc, University of Macau, Macau SAR, China (Oct. 2019-present)

Associate Professor, University of Science and Technology Beijing, China (Sep. 2018-present)

Postdoc, City University of Hong Kong, Hong Kong SAR, China (Oct. 2017-Apr. 2018)

Selected Publications

- 1) **C. Huang**, L. Wang, Z. Zhang*, R. S. C. Yeung, A. Bensoussan, H. S. H. Chung, “A Novel Spline Model Guided Maximum Power Point Tracking Method for Photovoltaic Systems”, *IEEE Transactions on Sustainable Energy*, early access (DOI: 10.1109/TSTE.2019.2923732), 2019.
- 2) **C. Huang**, L. Wang*, and L. L. Lai, “Data-driven Short-term Solar Irradiance Forecasting Based on Information of Neighboring Sites”, *IEEE Transactions on Industrial Electronics*, vol. 66 (12), pp. 9918-9927, Dec. 2019.
- 3) **C. Huang**, L. Wang, R. S. C. Yeung, Z. Zhang*, H. S. H. Chung and A. Bensoussan, “A prediction model guided Jaya algorithm for the PV system maximum power point tracking,” *IEEE Transactions on Sustainable Energy*, vol. 9, pp. 45-55, Jan. 2018. (ESI highly cited paper)
- 4) **C. Huang** and L. Wang*, “Simulation Study on the Degradation Process of Photovoltaic Modules”, *Energy Conversion and Management*, vol.165, pp. 236-243, Jun. 2018.

- 5) **C. Huang***, A. Bensoussan, M. Edesess, and K. L. Tsui, "Improvement in artificial neural network-based estimation of grid-connected photovoltaic power output," *Renewable Energy*, vol. 97, pp. 838-848, Nov 2016.
- 6) **C. Huang**, Z. Wang*, Z. Zhao, L. Wang*, C. S. Lai, and D. Wang, "Robustness Evaluation of Extended and Unscented Kalman Filter for Battery State of Charge Estimation", *IEEE Access*, vol. 6, pp. 27617-27628, 2018.
- 7) **C. Huang** and L. Wang*, "Gaussian Process Regression Based Modeling of Lithium-ion Battery Temperature-dependent Open-circuit-voltage", *IET Electronics Letters*, vol.53, pp.1214-1216, Aug. 2017.
- 8) L. Wang, **C. Huang***, and L. Huang, "Parameter Estimation of the Soil Water Retention Curve Model with Jaya Algorithm," *Computers and Electronics in Agriculture*, vol. 151, pp. 349-353, 2018.
- 9) L. Wang and **C. Huang***, "A Novel Elite Opposition-Based Jaya Algorithm for Parameter Estimation of Photovoltaic Cell Models", *Optik*, vol. 155, pp. 351-356, 2018.
- 10) L. Wang, Z. Zhang*, **C. Huang**, and K. L. Tsui, "A GPU-accelerated Parallel Jaya Algorithm for Efficiently Estimating Li-ion Battery Model Parameters", *Applied Soft Computing*, vol. 65, pp. 12-20, 2018.

Awards

Outstanding Academic Performance Award, City University of Hong Kong, 2016

Research Tuition Scholarship, City University of Hong Kong, 2016

Ph.D. Scholarship, City University of Hong Kong, 2014 to 2017

1st Prize in National Undergraduate Electronic Design Contest, China, 2010

Professional Activities

Memberships:

IEEE

CCF

Reviewer:

IEEE Transactions on Industrial Electronics

IEEE Transactions on Sustainable Energy

IEEE Transactions on Neural Networks and Learning Systems

IEEE Transactions on Systems, Man and Cybernetics: Systems