

## Associate Professor BAI, LIPING

Department of Engineering Science, Faculty of Innovation Engineering  
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### Academic Qualification:

**Ph.D. in Industry engineering**, Guangdong University of Technology, 2010

**Master in Mechatronics engineering**, Shenyang Institute of Automation, Chinese Academy of Sciences, 2000

**Bachelor in Mechanical engineering**, Northeastern University, 1995

### Teaching Area

Industry Engineering, Operations Research, Production Planning and Control, Information system, E- Commerce

### Research Area

Production planning and scheduling, Discrete event system, Petri net, building energy saving, Intelligent Traffic System

### Working Experience

Associate Professor, Faculty of Innovation Engineering, MUST, 2022 - present

Associate Professor, Faculty of Information Technology, MUST, 2013 - 2022

Associate professor, Department of Industrial Engineering, Guangdong University of Technology, 2007 - 2013

Lecturer, Department of Industrial Engineering, Guangdong University of Technology, 2003 - 2007

Assistant engineer, Shenyang Transformer Co.,Ltd, 1995-1997

### Academic Publication ( selected )

Longqing zhang · Liping Bai; XinWei Zhang; Lei Yang · Multi-Factor Indicator of CHIC Intelligent Lighting System with Personal in the Office · Applied Soft Computing Journal · <https://doi.org/10.1007/s11227-021-04289-z>.

WenQing Xiong, Yan Qiao, LiPing Bai, Mohammadhossein Ghahramani, NaiQi Wu, and PinHui Hsieh, Wafer Reflectance Prediction for Complex Etching Process Based on K-Means Clustering and Neural Network, IEEE transactions on semiconductor

L.Q. Zhang, L. P. Bai, X. W. Zhang, Y. H. Zhang, F. Sun, C. C Chen, Comparative variance and Multiple Imputation Used for Missing Values in Land Price DataSet, Computers, Materials & Continua, vol. 61, no.3, 1175 – 1187, 2019.

L.Q. Zhang, L. P. Bai, X. W. Zhang, Y. H. Zhang, Y. L, X. D. Yan, Cultivated land monitoring system based on dynamic wake-up UAV and wireless of distributed storage, Computers, Materials & Continua, vol. 61, no.2, 817 – 828, 2019.

- L. P. Bai, N. Q. Wu, Z. W. Li and M. C. Zhou, Optimal One-wafer Cyclic Scheduling and buffer space configuration for single-arm multi-cluster tools with linear topology, IEEE Transactions on Systems, Man, & Cybernetics, 2016, 46(10):1456-1467.
- N. Q. Wu, L. P. Bai, and M. C. Zhou, An Efficient Scheduling Method for Crude Oil Operations in Refinery With Crude Oil Type Mixing Requirements, IEEE Transactions on Systems, Man, and Cybernetics: Systems, vol. 46, no.3, 413 – 426, 2016.
- N. Q. Wu, M. C. Zhou, L. P. Bai, Short-term scheduling of crude oil operations in refinery with high fusion point oil and two transportation pipelines, Enterprise Information Systems, Vol. 10, No. 6, 581–610, 2016
- N. Q. Wu, L. P. Bai, M. C. Zhou, F. Chu, and S. Mammam, A novel approach to optimization of refining schedules for crude oil operations in refinery, IEEE Transactions on Systems, Man, & Cybernetics, Part C, vol. 42, no. 6, 1042-1053, 2012.
- Y. Qiao, N. Q. Wu, Q. H. Zhu, and L. P. Bai, Cycle Time Analysis of Dual-Arm Cluster Tools for Wafer Fabrication Processes with Multiple Wafer Revisiting Times, Computers & Operations Research, accepted.
- L. P. Bai and N. Q. Wu, Short-term scheduling of crude oil operations and its complexity. Industrial engineering Journal, vol. 14, no. 1,67-71, 2011.
- N. Q. Wu, L. P. Bai, and C. B. Chu, Modeling and conflict detection of crude-oil operations for refinery process based on controlled-colored-timed Petri net, IEEE Transactions on Systems, Man, & Cybernetics, Part C, vol. 37, no. 4, 461-472, 2007.
- L. P. Bai and N. Q. Wu, Performance analysis of cluster tool with revisiting in semiconductor manufacturing. Computer Integrated Manufacturing Systems, vol.11 · no.3 · 320-325 · 2005.
- L. P. Bai and N. Q. Wu, Performance analysis of cluster tool with Non-Revisiting in semiconductor manufacturing. Systems engineering theory and practice. vol.25, no.6, 11-18, 2005
- N. Q. Wu and L. P. Bai, A review of scheduling optimization in petroleum refining industry. Computer Integrated Manufacturing Systems, vol.11, no.1 · 90-96 · 2005.

## Research Grants

“複雜製造裝備和生產系統控制與調度新技術”與2016年獲澳門科學技術發明三等獎，排名第三。

“製造系統的Petri網建模、控制和運行優化”於2010年獲廣東省科學技術獎（基礎研究類）一等獎，排名第四。