Representative Publications

1. Bo Yang, Jun-jie Li, Chu Qi, **Hong-guang Li***, Ya-dong He. Novel Correlation Analysis of Alarms Based on Block Matching Similarities. *Industrial & Engineering Chemistry Research*, 58, 2019: 9465-9472
2. Yongjian Wang, Jingwen Huang, Chong Su, **Hongguang Li***. Furnace thermal efficiency modeling using an improved convolution neural network based on parameter-adaptive mnemonic enhancement optimization. *Applied Thermal Engineering*, 149, 2019: 332-343
3. Bo Yang, He Li, **Hongguang Li***. Multilayer Process Goose Queue (PGQ) Formation Adjustment Approaches based on Model-free Adaptive Control Strategies. *Transactions of the Institute of Measurement and Control*, 41(1), 2019: 45-54
4. Chong Su, Yue Gao, Bingxu Jiang, **Hongguang Li***. An Affective Cognition based Approach to Multi-attribute Group Decision Making. *Journal of intelligent & Fuzzy Systems*, 35(1), 2018: 11-33
5. Yongjian Wang, **Hongguang Li***. A novel intelligent modeling framework integrating convolutional neural network with an adaptive time-series window and its application to industrial process operational optimization. *Chemometrics and Intelligent Laboratory Systems*, 179, 2018: 64-72
6. Kashada Abubaker, **Li Hongguang***, Koshadah Osama. Analysis approach to identify factors influence digital learning technology adoption and utilization in developing countries. *International Journal of Emerging Technologies in Learning*, 13(2), 2018: 48-59
7. Bo Yang, **Hongguang Li***. A novel convolutional neural network based approach to predictions of process dynamic time delay sequences. *Chemometrics and Intelligent Laboratory Systems*, 174, 2018: 56-61
8. Bo Yang, **Hongguang Li***. A novel dynamic timed fuzzy Petri nets modeling method with applications to industrial processes. *Expert Systems with Applications*, 97, 2018: 276-289
9. Chong Su, Yue Gao, Yuxiao Xie, Yong Xue, Lijun Ge, **Hongguang Li***. A hybrid classifier based on nonlinear-PCA and deep belief networks with applications in dysphagia diagnosis. *Computer Assisted Surgery*, 22(s1), 2017: 135-147
10. Bo Yang, **Hongguang Li***. A similarity elastic window based approach to process dynamic time delay analysis, *Chemometrics and Intelligent Laboratory Systems*, 170, 2017: 13-24
11. Bo Yang, **Hongguang Li***. A dynamic time delay analysis approach for correlated process variables, *Chemical Engineering Research and Design*, 122, 2017:141-150
12. Jia Wang, **Hongguang Li***, Jingwen Huang, Chong Su. Association rules mining based analysis of consequential alarm sequences in chemical processes. *Journal of Loss Prevention in the Process Industries*, 41, 2016:178-185
13. Su Chong, **Li Hongguang***, Huang Jingwen, Bao Xianyu. Generating methods for group affective Preferences with Engineering Applications. *The Arabian Journal for Science and Engineering*, 40(6), 2015: 1539-1551
14. Jia Wang, **Hongguang Li***, Jinwen Huang, Chong Su. A data similarity based analysis to consequential alarms of industrial processes. *Journal of Loss Prevention in the Process Industries*, 35, 2015: 29-34
15. Chong Su, **Hongguang Li***. A novel interactive preferential evolutionary method for

3. Knowledge representations

4. Inference engines

Requirement: Mastering the architectures of expert systems, knowledge representations and reference methodologies

Homework: Literature reports

Chapter 7 Machine Learning (4 hours)

1. Introduction

2. Learning from examples

3. Data mining

Requirement: Knowing the fundamental technologies of machine learning

Homework: Literature reports

Chapter 8 Evolutionary Computations (4 hours)

1. Introduction

2. Genetic Algorithms

3. Detailed GAs

4. Realizations of GAs

5. Extensions of Simple GA

6. GA Application Areas

Requirement: Knowing genetic algorithms

Homework: Realizations of GA

Exams (2 hours)

Grade Points: Final exam 60%, Homework + Seminars 40%.

- 教案 **Teaching Plan**
- 视频 **Video**