Qingchao Jiang

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Profile

Dr. Qingchao Jiang received the B.E. degree in 2010 and the Ph.D degree in 2015, both from Department of Automation, East China University of Science and Technology, Shanghai, China. From March to September 2015, he had been a Postdoctoral Fellow in Department of Chemical and Materials Engineering, University of Alberta, Canada. From September 2015 to September 2016, he had been a Humboldt Research Fellow in the Institute for Automatic Control and Complex Systems (AKS), University of Duisburg-Essen, Germany. From October 2016 to May 2017, he had been a Visiting Research Fellow in Department of Chemical and Biomolecular Engineering, The Hong Kong University of Science and Technology. He is currently an Associate Professor with East China University of Science and Technology, Shanghai, China. His research interests include data mining and analysis, data-driven soft sensing, multivariate statistical process monitoring and deep learning-based process modeling. He has published more than 40 research papers in SCI journals like IEEE TIE、IEEE TCST、IEEE TII，AIChE J and J Process Control.

Research Field

data mining and analysis, data-driven soft sensing, multivariate statistical process monitoring and deep learning-based process modeling

Research results and selected published papers

1. Qingchao Jiang, Xuefeng Yan*, Biao Huang, Review and Perspectives of Data-Driven Distributed Monitoring for Industrial Plant-Wide Processes, Industrial & Engineering Chemistry Research, 2019, 58(29): 12899-12912.
2. Qingchao Jiang, Xuefeng Yan*, Hui Yi, and Furong Gao, Data-Driven Batch-End Quality Modeling and Monitoring Based on Optimized Sparse Partial Least Squares, IEEE Transactions on Industrial Electronics, Online DOI: 10.1109/TIE.2019.2922941.
3. Qingchao Jiang, Xuefeng Yan*, Multimode Process Monitoring Using Variational Bayesian Inference and Canonical Correlation Analysis, IEEE Transactions on Automation Science and Engineering, 2019, DOI: 10.1109/TASE.2019.2897477.
4. Qingchao Jiang, Xuefeng Yan*, Learning Deep Correlated Representations for Nonlinear Process Monitoring, IEEE Transactions on Industrial Informatics, 2018, Online DOI: 10.1109/TII.2018.2886048.
5. Qingchao Jiang, Xuefeng Yan*, Locally Weighted Canonical Correlation Analysis for Nonlinear Process Monitoring, Industrial & Engineering Chemistry Research, 2018, 57 (41): 13783-13792.
6. Qingchao Jiang, Xuefeng Yan*, and Biao Huang*, Neighborhood Variational Bayesian Multivariate Analysis for Distributed Process Monitoring with Missing Data, IEEE Transactions on Control Systems Technology, Online DOI: 10.1109/TCST.2018.2870570.
7. Qingchao Jiang, Xuefeng Yan*, Parallel PCA–KPCA for Nonlinear Process Monitoring, Control Engineering Practice, vol. 80, 17-25, 2018.
8. Qingchao Jiang*, Furong Gao*, Xuefeng Yan, and Hui Yi. Multiobjective Two-Dimensional CCA-Based Monitoring for Successive Batch Processes with Industrial Injection Molding Application. IEEE Transactions on Industrial Electronics, 2018.8, 66(5): 3825~2834.
9. Qingchao Jiang, Furong Gao, Hui Yi, and Xuefeng Yan. Multivariate Statistical Monitoring of Key Operation Units of Batch Processes Based on Time-Slice CCA. IEEE Transactions on Control Systems Technology, 2019, 27(3) 1368-1375.
10. Qingchao Jiang, Steven X. Ding, Yang Wang, and Xuefeng Yan. Data-driven Distributed Local Fault Detection for Large-Scale Processes Based on the GA-Regularized Canonical Correlation Analysis. IEEE Transactions on Industrial Electronics, 2017, 64(10): 8148-8157.
11. Qingchao Jiang, Biao Huang*. Distributed Monitoring for Large-Scale Processes Based on Multivariate Statistical Analysis and Bayesian Method. Journal of Process Control, 2016, 46, 75-83.
12. Qingchao Jiang, Biao Huang*, Steven X. Ding, Xuefeng Yan. Bayesian Fault Diagnosis with Asynchronous Measurements and Its Application in Networked Distributed Monitoring. IEEE Transactions on Industrial Electronics, 2016, 63, 6316-6324.
13. Qingchao Jiang, Biao Huang*, Xuefeng Yan. GMM and Optimal Principal Components-Based Bayesian Method for Multimode Fault Diagnosis. Computer & Chemical Engineering, 2016, 84, 338-349.
14. Qingchao Jiang*, Xuefeng Yan, Huang, Biao. Performance-Driven Distributed PCA Process Monitoring Based on Fault-relevant Variable Selection and Bayesian Inference. IEEE Transactions on Industrial Electronics, 2016, 63, 377-386.
15. Qingchao Jiang, Xuefeng Yan*. Nonlinear Plant-Wide Process Monitoring Using MI-Spectral Clustering and Bayesian Inference-Based Multiblock KPCA. Journal of Process Control, 2015, 32, 38-50.
16. Qingchao Jiang, Xuefeng Yan*. Just-In-Time Reorganized PCA Integrated with SVDD for Chemical Process Monitoring. AIChE Journal, 2014, 60 (3): 949–965.