IEEE International Conference on Industrial Informatics INDIN'17

Special Session on

"Big data analysis and diagnosis for industrial applications"

Principal Organizer: Tommy W. S. Chow (eetchow@cityu.edu.hk)
Affiliation: Department of Electronic Engineering
City University of Hong Kong, Hong Kong
Organizer 1: Jonathan Wu (jwu@uwindsor.ca)
Affiliation: Electrical and Computer Engineering Department
University of Windsor, Canada
Organizer 2: Kai Liu (liukai0807@gmail.com)
Affiliation: Department of Computer Science
Chongqing University, China

Call for papers:

Theme:

Big data is a huge collection of dataset that could contain abundant of useful information. Big data has started transforming the landscape of many industries. In business and finance sectors, they are continuing to research how big data can help transform their business process, increase profit and predict market trend. In industrial engineering, big data is helping technological development through shaping the system design and operations. Typical real-world applications include rolling element bearing fault diagnosis, process plant conditions monitoring, wireless sensor network faulty detection, time series data mining, video stream data analysis, and systems prognosis health management (PHM). In these applications, the number of data and features are usually huge and large-scale. To characterize the property of big data, dimensionality reduction, feature selection, and representational learning techniques are usually involved in big data analysis. In this special section, we look for cutting-edge machine learning techniques to handle big data for emerging industrial applications.

Topics of interest include, but are not limit to:

Large-scale machine fault diagnosis
Machine learning-based system design with big data

Deep learning technique-based fault diagnosis
Telecommunication system design
Recommender system design
Representational learning techniques
Data mining and its industrial applications
Big data processing techniques