



processes



Special Issue Reprint

Industrial Process Operation State Sensing and Performance Optimization

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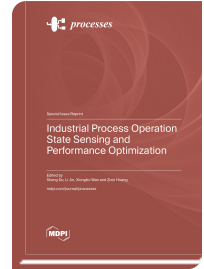
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The aim of this Special Issue is to enable readers to understand the latest technologies in industrial-process operation state sensing and performance optimization. Operational safety, energy consumption, and efficient management of industrial processes have received widespread attention with the rapid development of large-scale industries. The integration of advanced technologies such as machine learning, artificial intelligence, and data analytics will provide important support for soft sensing, process monitoring, fault diagnosis, energy consumption optimization, and performance improvement. This Special Issue collates research on industrially relevant objects such as geological drilling processes, chemical processes, conventional ageing processes in barrels, photobioreactors for algal growth, waste-to-energy plants, industrial electrical systems, and industrial robots, including technologies such as intrusion detection, fault detection, fire detection, model predictive control, integrated multi-criteria decision making, and emulsion control. By sharing their practice and insights on the development and application of new technologies, the authors of the articles in this reprint have demonstrated the value of operation state sensing and performance optimization in industrial processes, thus providing readers with valuable ideological inspiration in this area.



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