Industry 4.0 is the current trend for automation and data exchange in manufacturing technologies and includes cyber-physical systems, the Internet of Things, cloud computing, and cognitive computing. It is commonly referred to as the fourth industrial revolution, and industrial systems including smart factories, transportation systems, robotic systems, and power systems are becoming more complex as they are generally composed of a number of interconnected systems and/or have highly nonlinear dynamics. Furthermore, various disturbances such as external disturbance, modeling uncertainties, and parameter uncertainties may cause degradation of the system and control performance. Thus, it is challenging to develop effective techniques in control and modeling for complex industrial systems.

This special issue aims to collect original research and review articles that report results focused on advanced robust control and dynamics modeling for complex industrial systems.

Potential topics include but are not limited to the following:

- Novel modeling and validation techniques for industrial systems
- Advanced modeling techniques for evolution and degradation of complex dynamic systems
- Prognosis and health management for complex dynamic systems
- Estimation for industrial systems
- Advanced control for industrial systems
- Real-time implementation for modeling and control approaches
- Application and integration of various techniques such as linear and nonlinear system approaches, hybrid system and switching system approaches, networked system approaches, game theory, and knowledge-based methods

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/complexity/acdmis/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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