Editorial

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In recent decades, various improvements have been observed in power system operation and control. This evolution was mainly focused on the development of computational and communication structures. Both structures allowed the analysis of more complex models, which resulted in more flexible system operation in almost real-time mode. All these improvements favoured the change of power system operation to a new environment in which the traditionally electrical energy system-regulated monopoly became deregulated with operations based on energy market operations.

In this environment, not only security, but also the monitoring of power flow direction and the controls in order to satisfy the load, represent critical issues. The 2003 large blackouts that occurred in the USA, Canada, Italy and England should contribute to the creation of new advanced control centres for interconnected electrical power systems. Similar tendencies happened in the past owing to the occurrence of large blackouts.

The objective of this special issue is to provide a means for the publication and interchange of information, on an international basis, on all aspects of electric power systems, including real-time monitoring and control.