

Special Issue

Model Predictive Control: Advances in Sensor Technologies and Applications

Message from the Guest Editor

The synergy between model predictive control (MPC) and evolving sensor technologies represents a new era of intelligent control. This Special Issue, "Model Predictive Control: Advances in Sensor Technologies and Applications", explores the multi-faceted relationship between these two fields. The depth of sensor feedback loops, revealing the crucial role of sensors in MPC, highlights their integral function in feedback control. The fusion of different sensor data provides a broader perspective on MPC and enriches decision-making processes. In the era of data overload, techniques to control inconsistent or unreliable sensor data are becoming increasingly important in MPC. Moreover, the real-time applicability of MPC, when tested via the integration of wireless sensor networks, is both a challenge and a breakthrough. The introduction of soft sensors that can either complement or potentially replace traditional hardware is exciting. Finally, the transformative impact of self-calibrating sensors that redefine the adaptability of MPC is being explored.

Guest Editor

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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