

Special Section on:

Implementation of Sliding Mode Control: New Perspectives and Future Challenges

Sliding mode control (SMC) is a powerful technique for control of systems under perturbations in which the plant becomes completely insensitive to the effects of uncertainties. It is shown that the discrete implementation of this control law does not reveal similar behavior as its analog counterpart because the trajectories do not slide exactly along a predesigned surface. Although different approaches, e.g., reaching law approaches, event-triggered design, implicit discretization, have been proposed to address the issues related to the implementation, the application of these techniques to real-world problems is rather challenging. Particularly, in the network-based controller implementation, the design of SMC by taking into account the network induced constraints has been an active area of research within the community in the past decade because of limitations on the feedback.

This special section invites the researchers to submit the manuscripts on the recent advances on SMC and its applications. The focus of this section will be on state-of-art of different implementation techniques of SMC. The topics of interest to this issue are, but not limited to:

- **Event-triggered SMC**
- **Event-triggered high-order SMC**
- **Discrete time SMC**
- **Discrete-time SMC with high relative degree**
- **Distributed SMC for industrial applications**
- **Output feedback based event-triggered SMC**
- **Applications of SMC to electric drive systems, power systems, robotic systems**

Manuscript Preparation and Submission

Check carefully the style of the journal described in the guidelines “Information for Authors” in the IEEE- IES website: <http://www.ieee-ies.org/pubs/jestie>. Please submit your manuscript in electronic form through: <https://mc.manuscriptcentral.com/jestie-ieee/>.

On the submitting page, in pop-up menu of manuscript type, select: “**SS on Implementation of Sliding Mode Control: New Perspectives and Future Challenges**”, then upload all your manuscript files following the instructions.

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Timetable

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