

Special Section on Mathematical Systems Science and its Applications

The IEICE (Institute of Electronics, Information and Communication Engineers, Japan) Transactions on Fundamentals of Electronics, Communications and Computer Sciences (published in May 2022).

Submission Deadline: April 15, 2021. (Acceptance Notification: October 2021)

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The IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences announce a forthcoming Special Section on Mathematical Systems Science and its Applications to be published in May 2022.

Mathematical systems science is the study of design, analysis, verification, and control based on mathematical models and it is applicable in many engineering and scientific research areas including emergent fields such as cyber-physical systems, man-machine systems, open systems science, and systems biology. The aim of this special section is to clarify the state of art of research on mathematical systems science and to promote the future research.

The topics of interest within the scope of this special section include the following areas:

- System theory: Petri net, concurrent systems, discrete event systems, hybrid systems
- Formal methods for verification and design: model checking, automated theorem proving, scheduling, supervisory control
- Cyber-physical systems: embedded systems, real-time systems, autonomous systems
- Mathematical approaches to human factor: modeling and analysis of human behaviors, business process, service science
- Novel mathematical methods: open systems science, systems biology
- Machine learning approaches to mathematical systems science
- Applications and case studies: multi-car elevator systems, manufacturing systems, transportation systems, enterprise information systems

We also welcome letter submissions on industrial case studies.

For the submission to this Special Section, it is not mandatory to include an author who is a member of the IEICE. We recommend that the non-member authors take this opportunity to join. For detailed information on the IEICE Membership Application, please visit the web-page, https://www.ieice.org/eng_r/join/individual_member.html. If all authors are non-members, the article processing charge for non-members will be applied, except for invited papers.

The submitted paper will be reviewed by reviewers according to the ordinary rules of the Transaction Editorial Committee. The recommended number of pages is 8 for a PAPER and 2 for a LETTER. For the initial submission of a LETTER, the number of pages excluding References is at most 4. Please consult the Information for Authors that is available at the web page: https://www.ieice.org/eng/shiori/mokuji_ess.html

This special section will accept papers only by electronic submission. Please submit a paper using the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the “[Special-MA] Mathematical Systems Science and its Applications” as a “Journal/Section” on the online screen. Do not choose “[Regular-EA]”.

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The deadline for the paper submission is April 15, 2021.

Please note that the term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than 60 days because of the tight schedule for review. The final editorial decision for acceptance would be informed to the authors by October 2021. If the number of accepted papers exceeds the limit, some papers may be published in the following transactions. Authors must agree to the "Copyright Transfer and Page Charge Agreement" via electronic submission. Upon accepted for publication, all authors should pay the page charges covering partial cost of publication around October, 2021. If payment is not completed by 15 November, 2021, your manuscript will be handled as rejection.

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