



IEICE Transactions on Information and Systems
CALL FOR PAPERS



Special Section on

Formal Approaches

The IEICE Transactions on Information and Systems announces a forthcoming special section on Formal Approaches to be published in August 2019.

Formal methods and techniques play a key role in designing and developing highly reliable information systems and embedded systems. The last decades have seen various new techniques and profound theoretical results using formal methods in surprisingly many fields such as modeling, requirements analysis, specification, automatic generation of codes, testing, verification, and maintenance. They are rapidly extending their application domains as a result of the recent growth of information and communication technologies.

The Special Section on Formal Approaches aims at stimulating research on formal approaches to information systems and embedded systems, ranging from fundamental theory to practical applications. Our emphasis is put on the cross-fertilization of related research fields and encouragement of young researchers.

1. Topics

The major topics are listed below, but we solicit submissions in all areas of formal approaches, i.e., first to formalize information systems, embedded systems, and their environment, next to analyze their behavior and to derive their properties rigorously, and then to solve various problems in designing and managing the systems.

· **Theoretical foundations:**

all aspects of theory related to formal description and verification for structure and behavior of systems.

· **Formal techniques:**

techniques for mainly describing and analyzing systems, such as software, hardware and network.

· **Formal tools:**

tools based on formal methods such as model checker, theorem prover, and static and dynamic analysis.

· **Applications:**

practical experiences applying formal methods to information systems, embedded systems, circuits, security, AI systems, machine learning systems, automotive systems, etc.

· **Education:**

education on formal methods.

2. Submission Instructions

The deadline for submission is Sep 25, 2018, 23:59 JST(GMT+9). Manuscripts should be carefully prepared according to the guideline in the "Information for Authors" (available at http://www.ieice.org/eng/shiori/mokuji_iss.html). The preferred length of the manuscript is 8 pages. Only electronic submission through the web page is accepted.

Submit a complete paper and transfer copyright of the paper using the IEICE Web site at https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the [Special FO] Formal Approaches" as a "Journal/Section" on the online screen.

3. Editorial Committee

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4. Important Dates

Submission Deadline: September 25, 2018 23:59 JST (GMT+9) [firm deadline]

First Notification: November 23, 2018

Final Notification: March 8, 2019

5. Further Information

All inquiries should be sent to the guest editor in chief.

6. Important Notice

At least one of the authors must be an IEICE member when the manuscript is submitted for review. For the application of IEICE membership, visit https://www.ieice.org/eng/join_ieice/index.html.

When a paper has been accepted for publication, the authors are required to pay the page charges covering part of the cost of publication. Please carefully read [the submission guideline](#).

Upon accepted for publication, all authors, including authors of invited papers, should pay the page charges covering partial cost of publication around April, 2019. If payment is not completed by May 15, 2019, your manuscript will be handled as rejection.

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