DESCRIPTION

For JSS's full CfP including information on Special Issues, Industry, Trends, and Journal First tracks please continue to read for further details.

The Journal of Systems and Software publishes papers covering all aspects of software engineering. All articles should provide evidence to support their claims, e.g. through empirical studies, simulation, formal proofs or other types of validation. Topics of interest include, but are not limited to: Methods and tools for software requirements, design, architecture, verification and validation, testing, maintenance and evolution Agile, model-driven, service-oriented, open source and global software development Approaches for cloud/fog/edge computing and virtualized systems Human factors and management concerns of software development Artificial Intelligence, data analytics and big data applied in software engineering Metrics and evaluation of software development resources DevOps, continuous integration, build and test automation Business and economic aspects of software development processes Software Engineering education

The journal welcomes reports of practical experience for all of these topics, as well as replication studies and studies with negative results. The journal appreciates the submission of systematic literature reviews, mapping studies and meta-analyses. However, these should report interesting and important results, rather than merely providing statistics on publication year, venue etc. In addition to regular papers, JSS features two special tracks (In Practice, New Ideas and Trends Papers), as well as special issues.

In Practice is exclusively focused on work that increases knowledge transfer from industry to research. It accepts: (1) Applied Research Reports were we invite submissions that report results (positive or negative) concerning the experience of applying/evaluating systems and software technologies (methods, techniques and tools) in real industrial settings. These comprise empirical studies conducted in industry (e.g., action research, case studies) or experience reports that may help understanding situations in which technologies really work and their impact. Submissions should include information on the industrial setting, provide motivation, explain the events leading to the outcomes, including the challenges faced, summarize the outcomes, and conclude with lessons learned, take-away messages, and practical advice based on the described experience. At least one contributing author must be from industry. (2) Practitioner Insights were we invite experience reports showing what actually happens in practical settings, illustrating the challenges (and pain) that practitioners face, and presenting lessons learned. Problem descriptions with significant details on the context, underlying causes and symptoms, and technical and organizational impact are also welcome. Practitioner insights papers may also comprise invited opinionated views on the evolution of chosen
topic areas in practice. Submissions in this category are limited to four pages and the first author must be from industry. Finally, submissions to this track should be within scope of the journal's above topics of interest and they will be evaluated through industry-appropriate criteria for their merit in reporting useful industrial experience rather than in terms of academic novelty of research results.

New Ideas and Trends Papers
New ideas, especially those related to new research trends, emerge quickly. To accommodate timely dissemination thereof, JSS introduces the New Ideas and Trends Paper (NITP). NITPs should focus on the systems/software engineering aspects of new emerging areas, including: the internet of things, big data, cloud computing, software ecosystems, cyber-physical systems, green/sustainable systems, continuous software engineering, crowdsourcing, and the like. We distinguish two types of NITPs: A short paper that discusses a single contribution to a specific new trend or a new idea. A long paper that provides a survey of a specific trend, as well as a (possibly speculative) outline of a solution. NITPs are not required to be fully validated, but preliminary results that endorse the merit of the proposed ideas are welcomed.

We anticipate revisiting specific new trends periodically, for instance through reflection or progress reports.
New Ideas and Trend Papers warrant speedy publication.

Special Issues proposals
To submit a proposal for a special issue, please contact the Special Issues Editor Prof. W.K. Chan

Journal First Initiative
Authors of JSS accepted papers have the opportunity to present their work in those conferences that offer a Journal First track. Using this track, researchers may take the best from two worlds: ensuring high quality in the JSS publication (thorough, multi-phase review process of a long manuscript), while getting feedback from a community of experts and fostering possible collaborations during a scientific event.

Details may vary from conference to conference, but generally speaking, JSS papers to be presented in a Journal First track must report completely new research results or present novel contributions that significantly extend previous work. The ultimate decision to include a paper in the conference program is up to the conference chairs, not JSS. A JSS paper may be presented only once through a Journal First track.

As of today, the list of conferences with which JSS is collaborating, or has collaborated, through a Journal First track, is: ASE, ICSME, SANER, RE, ESEM, PROFES, and APSEC.

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**In Practice**
"In Practice" is exclusively focused on work that increases knowledge transfer from industry to research. It accepts: (1) experience reports, showing what actually happens in practice (contrasted to theory), illustrating the challenges (and pain) that practitioners face, detailing how research results fair in realistic settings, and presenting lessons learned; (2) problem descriptions with significant details on the context, underlying causes and explicit symptoms of the problem, the technical and organizational impact of the problem, as well as relevant research questions for researchers to investigate. Submissions to this track should include at least one co-author from industry and be within
scope of the journal’s above topics of interest. In addition, submissions will be evaluated through industry-appropriate criteria for their merit in reporting useful industrial experience; not in terms of academic novelty of research results.

**New Trends and Ideas Papers**

New ideas, especially those related to new research trends, emerge quickly. To accommodate timely dissemination thereof, JSS introduces the New Ideas and Trends Paper (NITP). NITPs should focus on the systems/software engineering aspects of new emerging areas, including: the internet of things, big data, cloud computing, software ecosystems, cyber-physical systems, green/sustainable systems, continuous software engineering, crowdsourcing, and the like. We distinguish two types of NITPs: A short paper that discusses a single contribution to a specific new trend or a new idea. The contribution should be wide-ranging, and not be confined to for example a specific technique for a small problem within one of the new trends. The novelty of the contribution should be crystal clear from the motivation letter that accompanies the submission. Such a short paper is limited to 3000 words (approx. 5 pages, a figure counts as 200 words). Because of the size and novelty of the contribution, a proper validation usually is not part of such a paper. Authors are encouraged to submit an extended version, one that does contain a proper validation of the ideas put forth, at a later stage. A long paper that provides a survey of a specific trend, as well as a (possibly speculative) outline of a solution.

We anticipate revisiting specific new trends periodically, for instance through reflection or progress reports.

New Ideas and Trend Papers warrant speedy publication. Therefore, only one round of major revision is allowed. Authors of NITPs are asked to provide a list of at least 4 potential reviewers for their paper.

**References**

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

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Results should be clear and concise.

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**Acknowledgements**

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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