

International Conference on the Software and Systems Process 2020 ICSSP 2020

Seoul, South Korea, May 23 and 24, 2020

Synergies of AI, Serverless, and Software and Systems Processes Call for Submissions

Overview

Techniques under the general heading of artificial intelligence (AI) are transforming many industries. Software development and evolution is no exception. These techniques including (but not limited to) Machine Learning (ML) and Deep Learning (DL) are redefining how developers build software products. ML and DL are accelerating contemporary software development lifecycles by analyzing huge amounts of data produced and consumed throughout the process. Concurrently, hardware provisioning is undergoing fundamental changes. We now see the rise of serverless infrastructure provisioning and a move towards pay-per-use hardware with the invention of microservices and Function-as-a-Service (FaaS) technology. AI and serverless hardware provisioning are rising trends that warrant careful software and systems process attention. AI can be an aid to software and systems processes, while software and system processes are required to build AI-based systems. This raises an important question for our field: How will human intelligence be supported and augmented by machine intelligence? With automated toolchains and cloud-based hardware provisioning paradigms driving more rapid and continuous integration and delivery, how will this combination of process, technology and people improve the quality, effectiveness and efficiency of software and systems development?

ICSSP 2020 is seeking contributions on research, practice, and compelling new ideas pertaining, but not limited, to the following topics:

- Software and systems processes for AI-based systems
- AI for general software and systems processes
- General software process related studies and research reports
- Measurement for hybrid and evolving processes
- The impact of serverless infrastructure on software and systems processes
- Empirical studies and experience reports on agile or hybrid processes
- Factors affecting selection, design, adoption, management and success of hybrid processes
- Continuous integration and deployment for serverless infrastructure
- Function-as-a-Service software and systems processes
- Impacts of special requirements such as high safety/reliability, globally distributed development, continuous integration, and others
- Evolution or transformation of organizations
- Enterprise processes for advanced development paradigms such as agile, lean, DevOps or customer-centric development
- Data science for analysis and management of hybrid and evolving processes

All accepted papers will be included in the ICSSP Proceedings, which will be published as part of the ICSE companion proceedings. In addition, a selection of the best papers from the ICSSP 2020 conference will appear in a special issue of the *Journal of Software Evolution and Process*.

We invite the following submissions:

Full papers (10 pages including references) that reflect completed and evaluated research on novel approaches to major software and systems engineering process challenges, especially relating to synergies of AI, serverless, and software and systems Processes. Enhanced versions of the best research papers will be included in a special issue of the *Journal of Software: Evolution and Process*. Full papers can also be industry experience papers that report and reflect on in-depth experience, potentially including challenges, solutions, lessons, and recommendations, of significance for the research and practice communities.

Short papers (5 pages including references) that present concise research results, describe work-in-progress (e.g. Ph. D. research), or conceptual and position papers addressing new perspectives, open questions and future directions. Short papers can also be industrial papers, for instance, describing practical challenges or research needs motivated by experience.

Posters (2 pages extended abstract (including references) + DIN A2 poster draft) for research or industry experience that is not yet ready for publication as a paper, but nevertheless would be of interest to other researchers in terms of ideas, participation, or collaboration.

Doctoral Track papers: The detailed submission instructions for Doctoral Track papers will be available soon.

Important Dates

- Fri 17 Jan 2020 Abstracts due (Main Track & Doctoral Track)
- Fri 21 Feb 2020 Notification to authors (All)
- Fri 24 Jan 2020 Full papers due (Main Track), letter of support for Doctoral Track
- Fri 6 Mar 2020 Camera-ready copies due (All)

Preconditions for Submission

All submissions must comply with the ACM and IEEE policies on authorship and publication. These include:

- The Policy on Roles and Responsibilities in ACM Publishing as they apply to authors
- The ACM Policy and Procedures on Plagiarism
- The ACM policy on Prior Publication and Simultaneous Submissions
- The IEEE guidance on publishing ethics

Note that submitted papers must reflect the original work of the authors, the authors must be entitled to publish the work, the work must not have been published previously in a refereed or formally reviewed publication, and the work must not be under review or in press elsewhere while under review for ICSSP, among other provisions.

How to Submit

Submissions to ICSSP must not exceed the page limits specified above for the applicable type of submission. Page limits include all text, figures, tables, references, and appendices. All submissions must be in English.

To submit follow the submission link: <https://icssp2020.hotcrp.com/>

Important: ICSSP is **NOT** following a double-blind reviewing process, so author names and affiliations should appear beneath the title of a submission. (This is different from the policy followed by ICSE and some other co-located events.)

Submissions must conform to the IEEE Conference Proceedings Formatting Guidelines.

Submissions must be made through the ICSSP submission site prior to the submission deadline. Be sure to direct your submissions to the main conference and select the appropriate submission type when uploading your submission.

The official publication date is the date the proceedings are made available in the ACM or IEEE Digital Libraries.

This date may be up to two weeks prior to the first day of ICSE 2020. The official publication date affects the deadline for any patent filings related to published work.

Purchases of additional pages in the proceedings is not allowed.

Requirement to Register, Attend and Present

If a submission is accepted, at least one author of the paper must register for and attend the conference and present the paper in person. **Failure to meet this requirement may result in the paper being withdrawn from the program and proceedings.**