JSEET - Joint Track on Software Engineering Education and Training

Call for Papers

Educating the Next Generation of Software Engineers

In 2021, ICSE's **Software Engineering Education and Training** (SEET) Track is joining forces with the **Conference on Software Engineering Education and Training** (CSEE&T) to bring you the **Joint Track on Software Engineering Education and Training** (JSEET). To prepare for the future and bring the two communities together, JSEET will focus on "Educating the Next Generation of Software Engineers."

Millennials and Generation Z have been dominating higher education programs for some time. In a decade, our classes will be hosting Generation Alpha. We have all noticed that these cohorts have unique needs and different learning styles, social behaviors, and skills. With their increasing mobility, our classes will become more and more diverse. Our students will become increasingly collaborative, socially aware, tech-savvy, multi-disciplinary, and interested in emerging technologies. How shall the software industry capitalize on the mix of qualities that the new breed of software engineers will possess? How shall software engineering educators effectively and equitably cater to the students', society's, and industry's evolving and diverse interests while ensuring that the next generation of software engineers learn the timeless principles, have a firm grounding in both software engineering theory and practice, behave responsibly, and make a positive contribution to the society?

JSEET seeks contributions in multiple categories on all aspects of learning and teaching software engineering. We are in particular interested in contributions addressing JSEET's theme or discussing the implications of their topic on JSEET's theme. Regardless of their topic, contributions should recognize the distinction between general computer science education and software engineering education, between a programmer and a software engineer, and between writing code and engineering a software system. Topics of interest include, but are not limited to:

- Foundational research on software engineering skills
- Methods of teaching software engineering skills
- Methods of evaluating, assessing, and measuring software engineering skills
- Evaluations of teaching and assessment methods in software engineering
- Empirical studies describing software engineering education contexts
- Learning technologies and tools that support software engineering education and training
- Automated evaluation of software engineering skills
- Role of soft skills (communication, collaboration, teamwork, organization, negotiation, conflict management) for software engineers
- Studies of equity, diversity, and inclusion in software engineering education and training
- Onboarding and on-the-job training of software engineers

- Continuing education of software engineers
- Extra-curricular training of software engineering students (e.g., through hackathons, bootcamps)
- Certification of software engineers
- Software engineering body of knowledge
- Role of culture and gender in software engineering education and training
- Use of online sources for software engineering education
- Encouraging software engineering education in K-12 programs

Submission Categories

- **Research Papers** (max 10 pages, plus up to 2 pages for references)—A research paper must address a topic related to software engineering and education using appropriate research techniques and proper scholarly writing. Negative and mixed findings are acceptable. Papers in this category will be evaluated against these criteria:
    - Relevance: to what extent the submission is relevant to JSEET and its theme;
    - Soundness: how well the paper's contributions are supported by rigorous application of appropriate research methods and whether the paper discusses meaningfully the research methods' limitations and threats to the validity of the findings;
    - Significance: the extent to which the paper is well-motivated and its contributions are original and important, with respect to the existing literature on software engineering education and training;
    - Verifiability: the extent to which the paper includes sufficient information to support independent verification or replication of the paper's claimed contributions;
    - Presentation: the extent to which the paper's organization and quality of writing is up to the standard: the paper is well-structured, employs clear and correct scholarly language, avoids ambiguity, includes clearly readable figures and tables, and is appropriately formatted.

- **Experience Reports** (max 9 pages, plus up to 1 page for references)—An experience report provides anecdotal evidence by describing an experience related to software engineering education and training (typically a course, a teaching or training technique or strategy, or an assessment method) and interprets the experience in terms of actionable advice and lessons learned, but does not need to evaluate it or use rigorous research methods to support its claims. Negative and mixed findings are acceptable. Papers in this category will be evaluated against these criteria:
    - Relevance: to what extent the submission is relevant to JSEET and its theme;
    - Significance: the extent to which the described experience is important with respect to the current state of software engineering education and training;
    - Actionability: the extent to which the paper provides actionable advice with clear take-away messages;
    - Lessons: the extent to which the paper meaningfully discusses lessons learned in terms of what went right, what went wrong, and what could be improved if the experience is repeated.
    - Presentation: the extent to which the paper's organization and quality of writing is up to the standard: the paper is well-structured, employs clear and correct language, avoids ambiguity, includes clearly readable figures and tables, and is appropriately formatted.

- **Idea Papers** (max 5 pages, plus 1 page of references)—An idea paper must present a new software engineering education and training idea with a proposed formal evaluation strategy, possibly with some preliminary or informal results. This track gives the authors the opportunity to get feedback on their idea before formally embarking on the proposed research. Papers in this category will be evaluated against these criteria:
    - Relevance: to what extent the submission is relevant to JSEET and its theme;
    - Soundness: to what extent the proposed research methods are appropriate to evaluate the proposed idea, and if present, the preliminary results are meaningful and promising;

    - Significance: the extent to which the idea is original, well-motivated, and has the potential to impact software engineering education and training;
    - Presentation: the extent to which the paper's organization and quality of writing is up to the standard: the paper is well-structured, employs clear and correct scholarly language, avoids ambiguity, includes clearly readable figures and tables, and is appropriately formatted.

- **Tool Papers** (max 5 pages, plus 1 page of references)—A tool paper describes a tool or technology that supports software engineering education and training. Papers in this category should discuss the impact of the tool on the learning process. A tool paper can optionally be accompanied by a short video (not exceeding five minutes) demonstrating the tool's main functionality (if you use this option, please provide the link at the end of the abstract). Papers in this category will be evaluated against these criteria:
    - Relevance: to what extent the submission is relevant to JSEET and its theme;
    - Significance: the extent to which the tool or technology is original and addressing a real need with respect to the existing technological landscape in software engineering education and training;
    - Maturity: the extent to which the tool or technology is mature enough to be presented at ICSE;
    - Availability: whether the tool or technology is available online, open-sourced, or on a trial basis and the extent to which it can be evaluated by potential users;
    - Presentation: the extent to which the paper's organization and quality of writing is up to the standard: the paper is well-structured, employs clear and correct language, avoids ambiguity, includes clearly readable figures and tables, and is appropriately formatted.

- **SEENG Workshop Position Papers (http://seeng2021.se-edu.org/)** (max 4 pages containing a position statement, plus a single page with the author's profile and references)—The Workshop on Software Engineering Education and Training for the Next Generation will be an interactive event intended to specifically support JSEET's theme. We strongly encourage submitters to other JSEET categories to also submit to the SEENG Workshop. We also encourage stakeholders other than software engineering educators—students, recent graduates, employers, and representatives of STEM education from government and non-government organizations —to submit. Accepted position papers will be published in the ICSE Companion Proceedings. SEENG submissions will follow the ICSE Workshops schedule. Contributions in this category will be evaluated against these criteria:
    - Relevance: extent to which the submission is relevant to JSEET's theme;
    - Profile: potential of the author to contribute to the workshop's goals and help it be successful;
    - Significance: potential of the author's position to impact the education and training of the next generation of software engineers;
    - Clarity: clarity of the author's position.

JSEET submissions should not exceed their respective category limit, including all text, figures, tables, and appendices. Up to two additional pages containing only references are permitted for certain categories. Please check the category page limits carefully. The page limits are strict and non-compliance will result in a desk reject.

All submissions must conform to the IEEE Conference Proceedings Formatting Guidelines (https://www.ieee.org/conferences/publishing/templates.html) (title in 24pt font and full text in 10pt type, LaTEX users must use `\documentclass[10pt,conference]{IEEEtran}` without including the `compsoc` or `compsocconf` option).

By submitting to this track, authors acknowledge that they are aware of and agree to be bound by the ACM Policy and Procedures on Plagiarism (https://www.acm.org/publications/policies/plagiarism (https://www.acm.org/publications/policies/plagiarism)) and the IEEE Plagiarism FAQ (https://www.ieee.org/publications/rights/plagiarism/plagiarism-faq.html (https://www.ieee.org/publications/rights/plagiarism/plagiarism-faq.html)). In particular, papers submitted to

ICSE 2021 must not have been published elsewhere and must not be under review or submitted for review elsewhere whilst under consideration for ICSE 2021. Contravention of this concurrent submission policy will be deemed a serious breach of scientific ethics, and appropriate action will be taken in all such cases. To check for double submission and plagiarism issues, the chairs reserve the right to (1) share the list of submissions with the PC Chairs of other conferences with overlapping review periods and (2) use external plagiarism detection software, under contract to the ACM or IEEE, to detect violations of these policies. By submitting to this track, authors acknowledge that they conform to the authorship policy of the ACM (https://www.acm.org/publications/policy-on-authorship (https://www.acm.org/publications/policy-on-authorship)), and the authorship policy of the IEEE (https://journals.ieeeauthorcenter.ieee.org/become-an-ieee-journal-author/publishing-ethics/definition-of-authorship/ (https://journals.ieeeauthorcenter.ieee.org/become-an-ieee-journal-author/publishing-ethics/definition-of-authorship/)).

Accepted contributions will be published in the ICSE 2021 Proceedings and Companion Proceedings, as well as in the ACM and IEEE digital libraries. The official publication date of the proceedings is the date the proceedings are made available in the ACM Digital Library. This date may be up to two weeks prior to the first day of the conference. The official publication date affects the deadline for any patent filings related to published work.

All submissions will follow a single-blinded review process (reviewers will be anonymous to the authors). Therefore submission should not take any precautions to obscure the identities of the authors.

Important Dates—Research Papers, Experience Reports, Idea Papers, Tool Papers

- JSEET Submissions Deadline: 18 October 2020
- JSEET Acceptance Notification: 15 January 2021
- JSEET Camera Ready: 12 February 2021

Important Dates—SEENG Workshop Position Papers

- SEENG Workshop Website Online: 23 November 2020
- SEENG Abstracts Deadline: 15 January 2021
- SEENG Submissions Deadline: 22 January 2021
- SEENG Acceptance Notification: 22 February 2021
- SEENG Camera Ready: 12 March 2021

All contributions must be submitted to EasyChair at:

https://easychair.org/conferences/?conf=icsejseet2021 (https://easychair.org/conferences/?conf=icsejseet2021)

Please make sure to choose the right submission sub-track and category when submitting. All submissions, except SEENG Workshop Position Papers, must be submitted to the ICSE-JSEET 2021 sub-track. SEENG Workshop Position Papers must be submitted to the JSEET 2021 SEENG Workshop sub-track.

Conference Attendance Expectation

If a submission is accepted, at least one author of the paper is required to register for and attend the full 3-day technical conference and present the paper. The presentation is expected to be delivered in person, unless this is impossible due to travel limitations (related to, e.g., health, visa, or COVID-19 prevention).

Important Dates	AoE (UTC-12h)
Fri 12 Mar 2021 SEENG Camera Ready	
Mon 22 Feb 2021 SEENG Acceptance Notification	

Fri 12 Feb 2021
JSEET Camera Ready

Fri 22 Jan 2021
SEENG Submissions Deadline

Fri 15 Jan 2021
SEENG Abstracts Deadline

Fri 15 Jan 2021
JSEET Acceptance Notification

Mon 23 Nov 2020
SEENG Workshop Website Online

Sun 18 Oct 2020
JSEET Submissions Deadline

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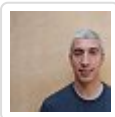

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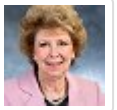

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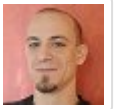

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