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**AVS 2021 is sponsored by IEEE
Technical Committee on
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Call For Papers

The IEEE International Symposium on Autonomous Vehicle Software (AVS 2021), a co-located event of QRS 2021 (The 21st IEEE International Conference on Software Quality, Reliability, and Security), creates a unique venue for the researchers, engineers, industry players and policy makers to present the latest advancements and innovations in the theoretical research, open source projects, software applications and regulation work in the autonomous vehicle software. AVS 2021 features keynote addresses by eminent scientists from both academia and industry. All research papers will be peer reviewed on the basis of a full length manuscript and acceptance will be based on quality, originality and relevance. IEEE Conference Publishing Services (CPS) will publish the proceedings. Accepted papers will also be submitted for inclusion in the IEEE Xplore and to other abstracting and indexing partners such as the Ei Compendex. Selected papers of top quality will be published in a special section of IEEE Transactions on Reliability instead of the conference proceedings. This will speed up the journal publication of these papers.

Topics

The topics of interests in this special issue include, but are not limited to:

- *Autonomous vehicle software vulnerability assessment, risk analysis, attack and threat models*
- *Safe design and implementation of autonomous vehicle software and applications for autonomous vehicles*
- *Autonomous vehicle operating system security*
- *Availability, resiliency and fault tolerance in autonomous vehicle software*
- *Autonomous vehicle software testing, verification and validation*
- *Autonomous vehicle software quality evaluation methodologies and metrics*
- *Autonomous vehicle software forensics, events monitoring and auditing*
- *Autonomous vehicle software standardization, certification, and interoperability*
- *Secure intra-vehicle, vehicle-to-vehicle, and other vehicular network communications*
- *Testing of machine learning components for autonomous vehicles*
- *Practical experiences, empirical studies, and testbeds for autonomous vehicle software*
- *Industrial experiences and best practices for autonomous vehicle software development*
- *Program synthesis for autonomous vehicle software*

Paper Submission

All papers must conform to the IEEE conference proceedings format and Submission Guideline set in advance by AVS 2021. They must be in English, PDF format, and must not be published or considered elsewhere. Submissions that do not comply with the above instructions will be rejected without review.

Regular Papers

Submit original manuscripts with a maximum of twelve pages. Each paper should include a title, the name and affiliation of each author, a 150-word abstract, and up to 6 keywords.

Short Papers

The objective of short papers is to report novel ideas and results that have not been fully evaluated. Submit original manuscripts with a maximum of six pages. Each paper should include a title, the name and affiliation of each author, a 150-word abstract, and up to 6 keywords.

Extended Abstracts

Submit an extended abstract with a maximum of two pages. Each extended abstract should include a title and the name and affiliation of each author.

Presentations

Submit a description of your talk on a selected topic within the scope of AVS 2021, including the title, the name and affiliation of the speaker, and a brief bio via email to Dr. Zijiang Yang. Speakers have the option to publish their presentation slides on the AVS website after the conference. Each submission will be evaluated on originality, contribution, soundness, presentation and relatedness. The program committee as a whole will make final decisions about which submissions to accept for presentation at the conference.

Dates

Regular and Short papers due

October 10, 2021

Author notification

November 1, 2021

Extended abstracts and presentations due

October 20, 2021

Camera-ready and copyright due

November 10, 2021