

The 1st International Workshop on Electrical and Autonomous Vehicle Software

In conjunction with [QRS 2020](#) - The 20th IEEE International Conference on Software Quality, Reliability, and Security in Macau, China, December 11-14, 2020

Introduction

The automobile industry is being transformed by three-dimensional disruptions, being from internal combustion engine to the electrical engine, from the human driver to the autonomous driving and from the ownership business model to the mobility as a service. The future electrical and autonomous vehicle is a moving data center connected to the cloud brains with the 5G network. The transformation will not only reshape the automobile industry in the coming decade with the trillion-dollar new market opportunities but also offer humanity a better future with more clean energy consumption, cheaper and safer transportation services and more efficient use of the urban infrastructure. This is the next big thing for software researchers, engineers, and industry players.

The International Workshop on Electrical and Autonomous Vehicle Software at QRS creates a unique venue for the researchers, engineers, industry players and policy makers to present the latest advancements and innovations in the theoretical work, open source projects, software applications and regulation work in the electrical and autonomous vehicle software.

Topic of Interest

The Workshop welcomes technical papers technical papers which are related to (but not limited to) the following topics:

- Theoretical Study on autonomous driving safety, explainable AI, AI ethics
- Theoretical Study on the vehicle's software functional safety and safety of the intended functionality
- Computer vision algorithm safety measurement and certification
- V2X information model for distributed sensor fusion
- Software defined electrical vehicle system architecture
- High performance operating systems, virtualization, micro service frameworks, data services and messaging
- High performance telemetry and data processing frameworks
- Trust computing in the vehicle software
- Safe and secure programming languages and practices in the mission critical in vehicle software
- High availability and reliability software architecture for the connected vehicle
- Data driven software quality assurance for the electrical and autonomous vehicle
- Software defined network in the connected vehicle

Important Dates

- Paper submission due: **June 15, 2020**
- Notification of acceptance: **July 10, 2020**

Submit Your Contributions

At the time of submission, all papers must conform to the Format and Submission Guideline set in advance by QRS 2020. All submissions must be in English and in PDF format. Submissions that do not comply with the above instructions will be rejected without review. Papers must be submitted electronically through the EAVS 2020 submission site. Each submission will be reviewed by members of the Program Committee and evaluated on originality, contribution, soundness, and presentation. The program committee as a whole will make final decisions about which submissions to accept for presentation at the conference. The length of a camera ready paper will be limited to eight pages, including the title of the paper, the name and affiliation of each author, a 150-word abstract, and up to 6 keywords. Authors must follow the [IEEE Computer Society Press Proceedings Author Guidelines](#) to prepare papers. At least one of the authors of each accepted paper is required to pay full registration fee and present the paper at the workshop. Arrangements are being made to publish selected accepted papers in reputable journals. The submissions must be in PDF and uploaded to the conference submission site:

<http://banana.utdallas.edu/qrs2020/start/www/EAVS/>

Organizing Committee

- Zijiang Yang, Western Michigan University, USA (zijiang.yang@wmich.edu)
- Yue Chen, Futurewei Technologies, USA (yue.chen@futurewei.com)
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Program Committee

- Angelo Corsaro, Ph.D., ADLINK Technology's chief technology officer, France
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- Ziang Hu, Ph.D., VP of Software Lab of Futurewei Technologies, USA
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