



# Call For Papers Student Track – 22<sup>nd</sup> escar Europe 2024

## OVERVIEW AND TOPICS



Information technology is the driving force behind most innovations in the automotive industry. Today, even compact vehicles have often dozens of interconnected microprocessors with up to several hundred megabytes of software and integrated communication capabilities to the outside world. For commercial vehicles like trucks or high-end vehicles these numbers are substantially higher. One crucial aspect in vehicles is their security. Whereas automotive safety is a relatively well established (if not necessarily well understood) field, the protection of automotive IT systems against malicious attacks has emerge significantly later. At the same time, security is nowadays considered a mandatory prerequisite for automotive IT applications. Therefore, automotive security contributes to both, reliability and safety, and has created an own ecosystem of approaches, tools, and services.

The escar conference has established itself as the premier forum for information, discussion and exchange of ideas and innovation in automotive security and attracts a broad audience from academia and industry. As in previous years, the program will include invited talks and submitted papers in security related areas like:

- Security in Software-Defined Vehicle and eco systems, incl changing value chains, continuous development, DevOps, application of new technologies
- Cyber Security Management System, incl. regulation, standardization, certification, interoperability, connection to other management systems, UN R155, ISO/SAE21434
- Offensive Security, e.g., car hacking, penetration testing, protocol analysis, automation, fuzzing, etc.
- Architectures for securing new applications, like highly-automated and autonomous vehicles, electric vehicles, big data in automotive, backend- and cloud-infrastructures, domain controller, vehicle computer, zero trust architectures, etc.
- Security engineering, safety & security co-design, trust models & formal methods, development & validation tools, security (long term) maintenance, security (credential and overall) management, incident handling and response, and security economics for automotive domain, etc.

- Future security technologies and their application to automotive systems, e.g., post-quantum cryptography, Trusted Execution Environments, privacy-enhancing technologies, etc.
- Security technologies for systems and subsystems, automotive ECUs and subcomponents, networks, and applications, e.g., hardware security, OTA, in-vehicle and V2X network security, access control, intrusion detection, monitoring, automotive SIEM, security functions, etc.
- Further automotive- and security-related topics such as security usability, legal aspects, privacy and data protection, security for other transport systems like railway or aerospace, mobility services like robotaxis, etc.
- Use of AI and machine learning in automotive contexts, e.g., generative AI, privacy-preserving machine learning, adversarial examples, security of automated driving mechanisms using AI.

## INSTRUCTIONS FOR PAPER SUBMISSION

Theoretical/scientific articles, case studies and descriptions of real-world experiences are all welcome. All submissions will be peer-reviewed. Prospective authors should contact one of the steering committee members in case they have a doubt about the appropriateness of their submission for the conference.

As a novelty, escar Europe 2024 features a STUDENT TRACK where students from B.Sc. or M.Sc. programs can present their thesis work to an international audience from industry and academia. Presentation will be in form of a poster session. The submission consists of two parts: a form providing information about the thesis including a short abstract. The second part is a PDF containing a two - three page description.

Students with accepted submission will receive a significantly discounted admission to the conference. Their CVs will be made available to our sponsors (opt-out possible).

## IMPORTANT NOTES

All submissions must use the templates provided on the website. Templates are available either in Word or LaTeX format. Submissions must be in PDF format and will be accepted only via escar's submission site:

<https://easychair.org/conferences/?conf=escareurope2024>

## IMPORTANT DATES

**Submission deadline:** ~~June 1, 2024~~ Extended to July 31, 2024

**Acceptance notification:** August 15, 2024

**Final paper due:** September 15, 2024

### Contact



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