International Workshop
TOwards A Safer systems' architecture Through Security (TOASTS)

SAFECOMP 2024, Florence, Italy, Sept. 17th, 2024

The workshop covers various layers of the system stack aimed at facilitating the design and implementation of safer and more secure architectures for complex, networked systems. These layers encompass: i)Hardware designs ensuring the integrity of executed code. ii) Operating system (OS) features providing robust isolation of processes. iii) Trusted applications for self-diagnosing system states. iv) Monitoring indicators to detect malicious activities on computing devices and network links exploitations. Integrating these layers offers a dual benefit to the safety of complex systems and networks. Firstly, their design and operation would encompass tested methods to prevent errors that could lead to failures. Secondly, addressing security issues reduces the risks associated with cyberattacks that could potentially compromise the structural integrity of facilities and the well-being of operators and users alike.

Sessions are planned to present scientific contributions, case studies, and work-in-progress reports addressing topics such as
- Trusted Execution Environments (TEE) and Trusted Platform Modules (TPM)
- Architecture, applications, and implementation technologies for trusted platforms
- Hardware/Software co-design aimed at Control Flow Integrity monitoring
- Remote Attestation (RA) and system/network trust monitoring
- OS support for TEE, TPM, RA
- OS support for process isolation and secure virtualization
- OS support for isolated network access by processes and threads
- Side-channel attacks and defenses for OS/Hypervisor/TEEs
- Formal modeling for secure applications
- Network programmability for security
- Efficient embedding of security functions in network elements
- Risk assessment methodologies in industrial plants, safety and security implications
- Anomaly detection in complex systems and networks to detect attacks and failures
- Distributed identification systems in IoT
- Blockchain and IoT

All submissions will be peer-reviewed by at least three PC members to ensure novelty and potential, rather than full maturity, with the goal of gathering researchers as well as practitioners to foster discussion and exchange of ideas.

Reports of the activities of European or national research projects (as part of the required dissemination) as well as industrial experience reports from work in progress are most welcome, and a specific session is planned for the dissemination of the EcoCyber project, part of the national SERICS project (PE00000014) under the MUR National Recovery and Resilience Plan funded by the European Union - NextGenerationEU.

Workshop proceedings will be provided as a complementary book to the SAFECOMP Proceedings in Springer LNCS. Papers (6 - 12 pages). Please keep your paper format according to SPRINGER LNCS style guidelines http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0

Submission will be via EasyChair: https://easychair.org/conferences/?conf=toasts2024
Deadlines:
- Full paper submission: 6 May 2024
- Notification of acceptance: 27 May 2024
- Camera-ready submission: 10 June 2024
- Workshop: 17 September 2024

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