



3rd Workshop on
**Security and Dependability of
Critical Embedded Real-Time Systems**

<https://certs2018.uni.lu>

Co-located with the IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), Luxembourg

<p>Workshop Organizers</p> <p>Sibin Mohan University of Illinois, Mikael Asplund Linköpings Universitet</p> <p>Steering Committee</p> <p>Marcus Völz SnT - University of Luxembourg Paulo Veríssimo SnT - University of Luxembourg Antonio Casimiro University of Lisbon Rodolfo Pellizzoni University of Waterloo</p> <p>Important Dates</p> <p>Workshop submission deadline 1st April 2018 8th April 2018</p> <p>Notification of acceptance 22th April 2018</p> <p>Final versions 4th May 2018</p> <p>Workshop tba</p> <p>Conference 25 - 28 June 2018</p>	<p>Call for Papers</p> <p>At their heart, many critical systems and system infrastructures are composed of real-time and embedded systems (RTES). For example, RTES control our power grids, maintain our smart homes, steer our vehicles or they host the software in road-side units that allow our vehicles to drive more safely and more efficiently. For sure, they will open the way to even more challenging applications, such as in autonomous and cooperating vehicles, terrestrial or aerial. However, most of these RTES are distributed or networked, which makes them vulnerable both to accidental faults and targeted attacks and advanced and persistent threats. Worse, compromise of a few nodes may bring down the entire system, in particular if attacks persist. The grand challenges brought in by these scenarios include ensuring continuous unmaintained operation under faults and attacks. Systems may possibly utilize easier to upgrade computation resources in mobile phones or road side units whose trustworthiness needs to be established while the RTES approaches these units. And while attackers may try to compromise the RTES' functionality or timing, we seek to protect the integrity and timeliness of systems and the privacy of their users. Mastering these challenges requires the expertise of several research areas, and so, the goal of this workshop is to bring together researchers and engineers from the security and dependability, distributed systems and real-time communities, in order to discuss and promote new and exciting research ideas and initiatives, and to identify and discuss the challenges that lie ahead for such critical applications. CERTS'18 strives for an inclusive and diverse program and solicits short and long technical papers on open problems, experiments, case studies, new ideas, or future challenges. See https://certs2018.uni.lu for a detailed description of contribution formats.</p> <p>Scope and Topics of Interest</p> <p>CERTS'18 is open to all topics at the intersection of security and dependability of embedded and real-time systems, with an emphasis on criticality and distribution. As such, areas of interest include but are not limited to the following topics:</p> <ul style="list-style-type: none">○ Security and dependability of cyber-physical and other real-time and embedded systems,○ Vulnerabilities and protective measures of CPS infrastructure,○ Fault and intrusion tolerant distributed real-time systems,○ Confidentiality and privacy in real-time and embedded systems, and○ System architectures encompassing combinations of distribution, security, dependability and timeliness. <p>Contribution formats include technical presentations of systems, system models and architectures, methods, tools, protocols and infrastructures to improve the dependability and security of real-time systems but also open problems and future challenges papers and experimental papers including experience reports and negative results.</p> <p>Submission Formats</p> <ul style="list-style-type: none">○ Short Work-in-Progress Paper: up to two pages, standard IEEE format○ Full Paper: up to six pages, standard IEEE format <p>Adherence to the format is strict, but we tolerate moderately exceeding the page limit (by up to two pages) if the content so justifies. Visit https://certs2018.uni.lu for further details.</p>
<p>Program Committee:</p> <p>Antônio Augusto Fröhlich Rakesh Bobba Christian Esposito Martin Gilje Jaatun Karl Goeschka</p>	<p>Zbigniew Kalbarczyk Ravi Prakash Sasikumar Punnekat Hans Reiser Guillermo Rodriguez-Navas José Rufino</p> <p>Elad Schiller Elena Troubitsyna Martin Törngren Bryan Ward Heechul Yun Saman Zonouz</p>