

Towards an Integrated Model for Safety and Security Requirements of Cyber-Physical Systems

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Abstract	<p>Increasing interest in cyber-physical systems with integrated computational and physical capabilities that can interact with humans can be identified in research and practice. Since these systems can be classified as safety- and security-critical systems the need for safety and security assurance and certification will grow. Moreover, these systems are typically characterized by fragmentation, interconnectedness, heterogeneity, short release cycles, cross organizational nature and high interference between safety and security requirements. These properties combined with the assurance of compliance to multiple standards, carrying out certification and re-certification, and the lack of an approach to model, document and integrate safety and security requirements represent a major challenge. In order to address this gap we developed a domain agnostic approach to model security and safety requirements in an integrated view to support certification processes during design and run-time phases of cyber-physical systems.</p>
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