

Carnegie Mellon University Software Engineering Institute



SEI Bulletin — July 25, 2018

Certifiable Distributed Runtime Assurance in Cyber-Physical Systems

Runtime assurance (RA) has become a promising technique for ensuring the safe behavior of autonomous systems (such as drones or self-driving vehicles) whose behavior cannot be fully determined at design time. The Department of Defense (DoD) is increasingly focusing on the use of complex, non-deterministic systems to address rising software complexity and the use of machine learning techniques. In this environment, assuring software correctness has become a major challenge, especially in uncertain and contested environments. In this SEI Blog post, Dionisio de Niz highlights work by a team of SEI researchers to create tools and techniques that will ensure the safety of distributed cyber-physical systems.

[Read the SEI Blog post.](#)

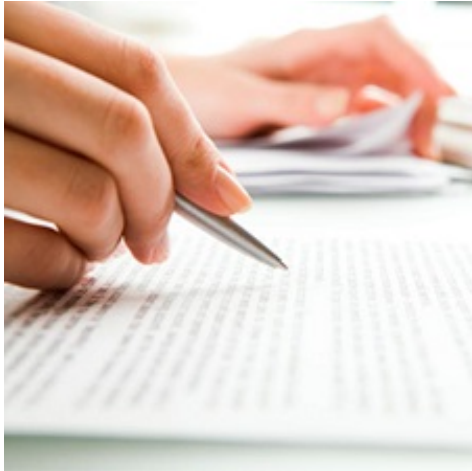
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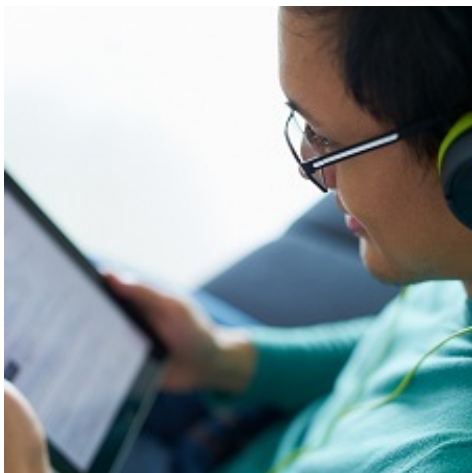
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