



Safe Autonomous Systems – Challenges and Potential Solutions

*Wilfried Steiner
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Date: Oct 22nd, 2021

Time: 14:00-15:00

Teams Link: [Join Seminar](#) (We'd appreciate if you could optionally [register](#) to join our mailing list)

Abstract:

Over the last decades we have managed to build quite sophisticated dependable systems, like airplanes or power plants. However, the complexity of autonomous systems like self-driving cars is unprecedented, and so is their safety assurance. In this talk I will discuss a conceptual architecture as the foundation for safe autonomous systems, followed by practical design considerations and challenges. I will present some formal verification studies and discuss possible strategies to achieve dependability of systems that incorporate ML components.

Biography:

[Wilfried Steiner](#) is the Director of the [TTTech Labs](#) which acts as center for strategic research as well as the center for IPR management within the TTTech Group. Wilfried Steiner holds a degree of Doctor of Technical Sciences and the Venia Docendi in Computer Science, both from the Vienna University of Technology, Austria. From 2009 to 2012 Wilfried Steiner has been awarded a Marie Curie International Outgoing Fellowship that has been hosted by SRI International in Menlo Park, CA. His research is focused on dependable cyber-physical systems for which he designs algorithms and network protocols with real-time, dependability, and security requirements. Wilfried Steiner has been the editor of the SAE AS6802 standard (Time-Triggered Ethernet), served multiple years as voting member in the IEEE 802.1 that standardizes time-sensitive networking (TSN), and is currently member in the ISO TC 22 that develops standards for safe autonomous road vehicles.

Please [contact](#) Jennifer for any Teams connectivity issues: j.mcculloch@lancaster.ac.uk