



POLITECNICO
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Automation and Control Industry Seminar:

Dr. Son Tong, Siemens Digital Industries Software

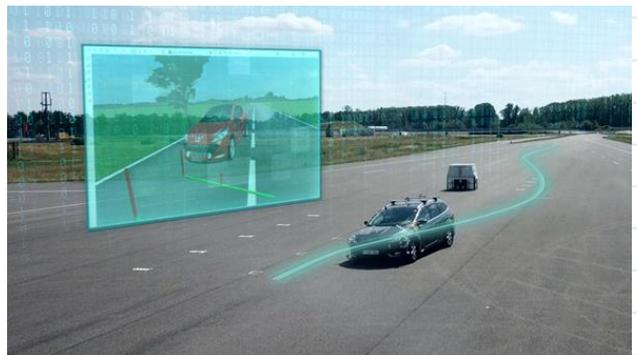


[Download the calendar invitation](#)

WHEN: Thursday, October 28th 2021, 9.00-10.00 (45' seminar + 15' Q&A)

WHERE: <https://politecnicomilano.webex.com/meet/lorenzo.fagiano>

ABSTRACT: In this talk, I will discuss several topics on control system development in automotive industry, in particular autonomous driving (AD) and advanced driver-assistance systems (ADAS) applications. First, I will provide a global picture of different technology blocks in an ADAS system. Next, the development cycle process of how a control system is developed starting from requirements, proof-of-concept, to testing and operation will be presented. Through the concrete use cases, for example, lane keeping assist, collision avoidance and autonomous valet parking, I will discuss challenges, technologies and how they are connecting well to the university studies. Multiple aspects that you have been learning such as simulation, linear/nonlinear/optimal control, testing and data collection, filtering, model identification, design specifications, hardware validation,... will be shown in a systematic framework from my personal views. Finally, several simulation and experimental demonstrations of autonomous vehicle driving made from our R&D team in Siemens Digital Industries Software will be shown.



SPEAKER: Son Tong is a senior research engineer and project manager at Siemens Digital Industries Software in Leuven, Belgium. He is currently managing a R&D team of industrial PhDs and research engineers working on control and autonomous driving engineering topics. Son Tong studied control at Hanoi University of Technology, Vietnam and GIST, South Korea. He received his Ph.D. degree as a Marie Curie fellow from KU Leuven in 2012 in the field of learning control in mechatronics. He is actively involved in different R&D projects in Siemens and EU-Belgian research schemes, and was awarded Siemens PL Invention of the Year Award and in the finalist of the AutoSens Award 2019 in Most Influential Research. He serves in the Conference Editorial Board of the IEEE Control Systems Society.

The seminar is organized by the Automation and Control Engineering Degree Programme and primarily intended for students enrolled in the third year of the BSc Degree or in the MSc Degree. The seminar will be held in English.

For information you can contact Prof. Lorenzo Fagiano (lorenzo.fagiano@polimi.it)