

Industrial Workshop IW16

Antenna Arrays and Filter Design for 5G and Autonomous Vehicles in CST Studio Suite (by Dassault Systems)



Abstract:

CST Studio Suite is a product of Dassault Systèmes for simulating electromagnetics. The workshop will focus on recent developments to handle the full complexity of complete antenna systems, incorporated in Dassault Systèmes electromagnetic simulation suite. The main focus areas of the workshop will be 5G, autonomous vehicles / ADAS and filter design. Details of the solution for antenna array design, antenna placement, mmWave antennas, network coverage, or 3D model build automation for cavity filters will be shown. The above mentioned workflows are supported by state-of-the art solver technology including time domain, frequency domain, integral equations and asymptotic techniques and their hybridization.



Workshop Program (Wednesday, 24 March 2021, 12.10-12.40 h)

The workshop will demonstrate capabilities of SIMULIA CST Studio Suite 2021. The focus will be on the following application areas:

- 5G – Network Coverage, Antenna Array Design, mmWave Antenna Design
- Autonomous Driving / ADAS – Radar Sensor Design & Integration into Vehicle
- Filter Design – 3D Model Build Automation and Workflow Improvements



Jan Eichler is a SIMULIA Industry Process Consultant Specialist at Dassault Systèmes. He received his M.Sc. and Ph.D. in radioelectronics from the Czech Technical University in Prague. His research was focused on antenna modal decomposition and integral equations in electromagnetics. He joined CST in 2014 his main area of work involves high frequency applications and EMC/EMI simulation. He also worked on development of techniques to characterize material properties from measured data. In recent years he focuses on T&M industry and develops workflows and recommendations for ADAS/AV sensors design and placement in particular on FMCW automotive radar technology.