

APS 2019 Software Demonstration Proposal

Atlanta, USA – AT STATIONS

[DATE]

Title: [Design of High Gain Patch Antennas using Topology Optimization using FEKO and HyperStudy]

Abstract: [Patch antennas are still an ongoing topic of interest due to their advantages: low profile, low cost and ease of fabrication. One of the disadvantages of patch antenna is low directivity which results in low range performance. In this demonstration, we will introduce an efficient and novel way to improve the directivity of patch antenna using topology optimization and design of experiments (DoE). Numerical simulations are done using Method of Moments (MoM) technique in product, FEKO. We use global response surface method (GRSM) for double objectives topology optimization using the product HyperStudy. This product demonstration will show use of topology optimization and DoE techniques for the systematic design of high directivity of low profile single element patch antennas.]

This demonstration will show the pertinent steps for design of a patch antenna for V2V applications at 5.9GHz using FEKO in conjunction with HyperStudy.]

Presenter:

[Dr. Aseim Elfrgani
aelfrgani@altair.com]

Schedule: [1st choice: Tuesday AM, 2nd choice: Thursday AM]