XINGJIAN(VICTOR)-SHANGGUAN
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EDUCATION

Zhejiang University	B.E. in Information Engineering	GPA: 3.78/4.00	Sep 2015-Jun 2019

RESEARCH EXPERIENCE

UIUC Summer Research   Jul 2018-Sep 2018

Undergraduate Researcher, Prof. José Schutt Ainé, University of Illinois at Urbana-Champaign

- Constructing of an interconnect structure using CST and HFSS software and write VB Marco/MATLAB scripts to automate the simulation procedure. Using parallel computing to boost simulation, while recording the run time and all relative simulation cost

- Use TASMANIAN to interpolate high dimension simulation results, trying to get stochastic modeling results using less simulations

Graduation Project-Source reconstruction using phase-less scanning results   November 2018 – May 2019

Undergraduate Researcher, Prof. Xing-Chang Wei, Zhejiang University

- Research on source reconstruction. Using near field phase-less simulation results on a single surface to reconstruct the equivalent dipole source. Using singular value decomposition to solve the reverse EM problem, with approximation in phase reconstructing process.

- Experiment in near-field scanning, setting up the scanner and adjusting coordinate system, setting the scanner to automatically scan a surface with fixed steps. And compare the reconstructed field with the original one.

- Proposed a method for improvement by placing the dipoles on known radiation edges to get better phase results.

- During the process, developed two visualization methods for the broadband radiation visualization. An RGB algorithm and a filter-based algorithm and used a three-frequency example and a filter-based multi-frequency example to show dominant frequencies and propagation of waves in the scanned surface.

- Wrote two conference papers in the process. '*Application of Iteration Algorithm for the Source Reconstruction*' and '*Broadband Visualization Method for Near Field Scanning*'.

SKILLS

Experience in using ANSYS HFSS, ADS for model simulations

Experience in automating simulation process using scripts

Experience in using MATLAB, knowledge of Python