Osama Alkhateeb, PhD

US Citizen
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Work Experience

The University of Akron, Akron, USA   **08/2019   Present**
Visiting Assistant Professor

Teaching of lower-level courses, preparation of course materials, conducting examinations, grading, holding office hours.
One-year experience with online mode of delivery.
Courses: Basic Electrical Engineering, Tools of Electrical and Computer Engineering Laboratory, Programing for Engineers.

Al- Balqa' Applied University, Salt, Jordan   **09/2018   05/2019**
Part-time Lecturer

Teaching of lower-level courses, preparation of course materials, conducting examinations, grading, holding office hours.

Education

PhD in Electrical Engineering - 12/2017
The University of Akron, Akron, OH
Dissertation title: "Data-Driven Uncertainty Quantification in Applications of Electromagnetics and Wireless Communication via Arbitrary Polynomial Chaos".

MS in Electrical Engineering - 05/2012
The University of Akron, Akron, OH
Thesis title: "Singularity-Free Boundary Methods for Electrostatics and Wave Scattering".

BA in Electrical Engineering - 08/2007
The University of Jordan, Amman, Jordan
Senior project: implemented autonomous cruise control system in vehicles using PIC microcontrollers, ultrasonic sensors, and infrared sensors.

Technical Skills: MATLAB/SIMULINK, MathCAD, HFSS, CST, Mathematica, Pspice, C, C++, LabView, and MEEP.
Numerical Methods: finite-difference time-domain (FDTD) method, method of moments (MoM), and finite element method (FEM).

Professional Publications

[1] A N M Shahriyar Hossain, Osama J. Alkhateeb, Igor Tsukerman, and Nathan Ida. Finite element analysis of metaguides and metasurfaces for dynamic beam steering.19th Biennial IEEE Conference on Electromagnetic Field Computation, Pisa, Italy, November 2020.

[2] Osama J. Alkhateeb and Nathan Ida. Data-driven arbitrary polynomial chaos for uncertainty quantification in filters. Applied Computational Electromagnetics Society Journal, vol.33, no.9, September 2018.

[3] Shampy Mansha, Osama Alkhateeb, Igor Tsukerman, Chong Yidong. Trefftz-based methods for electromagnetic wave scattering in aperiodic slabs. 11th International Symposium on Electric and Magnetic Fields. Darmstadt, Germany, April 2018.

[4] Osama Alkhateeb and Nathan Ida. Data-driven multi-element arbitrary polynomial chaos for uncertainty quantification in sensors. IEEE Transactions on Magnetics, vol.54, issue.3, pp.1-4, March 2018.

[5] O. Alkhateeb and N. Ida. Uncertainty analysis on band-stop filter using data-driven arbitrary polynomial chaos. In 2017 International Applied Computational Electromagnetics Society Symposium - Italy (ACES), pages 1-2, March 2017.

[6] Igor Tsukerman, Osama AlKhateeb. Fritz Kretzschmar and Sascha Schnepp, Trefftz Approximations: Finite-Difference, Boundary-Difference and Discontinuous Galerkin Schemes. Sixth Conference on Finite Difference Methods: Theory and Applications, Lozenetz, Bulgaria, June 2014

[7] Alkhateeb, O.; Tsukerman, I. A boundary difference method for electromagnetic scattering problems with perfect conductors and corners. IEEE Transactions on Ante-2(L4r)-3(y)] TJETQq0.00000912 0 612 792 reW*nBT/F2 9.96 Tf1 0 0 1 559.1[(d)-e. In 2017