

Summary

- PhD student in Electrical and Computer Engineering at the University of Florida
- Senior RF engineer and project manager at RF Research Center (Tehran, Iran) for over six years
- Experienced in Superheterodyne receiver design, implementation, test, and measurement.
- Experienced in microwave passive and active antenna and circuits design.
- Proficient in several RF and antenna design software packages such as ANSYS HFSS, CST Microwave Studio, and Keysight ADS

Education

PhD Student, Electrical and Computer Engineering (2021-present)

[University of Florida](#), Gainesville, Florida, USA

M.Sc., Electrical and Computer Engineering: Microwave and Optics (2010-2013)

[Sharif University of Technology](#), Tehran, Tehran, Iran

Thesis: Anomalous reflection and transmission in resonant magneto-optic structures

B.Sc., Electrical Engineering, Major: Telecommunications (2006-2010)

[K. N. Toosi University of Technology](#), Tehran, Tehran, Iran

Professional Experience

[University of Florida](#), Gainesville, Florida, USA (2021-Present)

Research Assistant

- Design of a standing wave based VCO circuit for 6G applications.
- Design and implementation of a band selective passive dual band frequency doubler/divider circuit for nonlinear tag communication in wireless frequency band for localization and sensing applications.

[University of Illinois at Chicago](#), Chicago, Illinois, USA (2020-2021)

Research Assistant

- Design of a diplexer-based energy harvesting circuit for simultaneous and unified power and data transfer.

[RF Research Center](#), Tehran, Tehran, Iran (2011-2019)

Senior RF engineer and project manager

- **18GHz compact battery based portable receiver with android spectrum monitoring application and remote control and Data transferring**
Superheterodyne receiver design: Frequency planning, spurious signal optimization, gain, noise figure, and image rejection analysis and calculation, component selection, schematic design, PCB and mechanical design supervision, test, and measurement.
- **Ka-band LNB (low Noise Figure < 2dB and low Phase Noise :-100dBc/Hz @ 10KHz offset in 17-22GHz, DC controlled band selection with superheterodyne structure, L band down-conversion)**
Engaged in all steps from concept to production, environmental and field test.
- **1MHz-8.5GHz 2Ch superheterodyne frequency tuner:**
Frequency planning, component selection, PCB level design and optimization, thermal simulation, and mechanical design supervision, environmental test supervision
- **L band Tuner** (using image reject Hartley mixer architecture):
Automated test setup design using MATLAB code and GPIB connection between measurement instruments.

- **Digital GSM Receiver with I/Q output and Wi-Fi data transferring:**
RF schematic and PCB design, test and measurements.

[Pardis Lab](#), Tehran, Tehran, Iran

(2010-2011)

RF Engineer and Researcher

- Design and fabrication of a 10MHz-4GHz frequency synthesizer module.
- Design and production of a matrix switch.
- Design, simulation, and implementation of an ultra-low phase noise multi loop PLL.

Software Skills

- **Engineering Software:** ANSYS HFSS, CST Studio, Genesys, ADS, COMSOL Multiphysics, Microwave office, PSPICE, Altium Designer, Cadence Virtuoso, OrCAD capture, ADSimPLL, TICS Pro,
- **Code Developing:** MATLAB

PUBLICATIONS

1. Payman Pahlavan, 2021, Conversion between EOT and Fabry-Perot Resonances for Light Transmission Peaks through Two-Dimensional Metallic Slit Array, INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) Volume 10, Issue 11 (November 2021),
2. Payman Pahlavan, Milad Sharifi Sorkherizi, Alireza Tadjalli and Reza Hosseini "Frequency Scanning in the Uniform Leaky-Wave Antenna Based on Nonradiative Dielectric (NRD) Waveguide" *19th Iranian Conference on Electrical Engineering, ICEE2011*
3. Hosseini, Seyyed Reza, Reza Sarraf Shirazi, A. Kiaee, P. Pahlavan, and M. Sharifi Sorkherizi. "UHF Propagation Prediction in Smooth Homogenous Earth Using Split-step Fourier Algorithm" *Progress in Electromagnetics Research 685 (2012)*.
4. B. Smida and P. Pahlavan, "Unified Wireless Power and Information Transfer Using a Diplexed Rectifier," *2021 IEEE Global Communications Conference (GLOBECOM)*, 2021, pp. 01-05, doi: 10.1109/GLOBECOM46510.2021.9685263.
5. Payman Pahlavan, Najme Ebrahimi "Dual-band Harmonic and Subharmonic Frequency Generation Circuitry for Joint Communication and Localization Under Severe Multipath Environment" *To be submitted to IEEE Transactions on Microwave Theory and Techniques*