Ramin Ala

Electrical Engineer

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Website

EDUCATION

- **Ph.D.** 2019 – 2023
  Electrical Engineering
  University of New Brunswick
  New Brunswick, Canada
  Thesis: *Efficient and Ultra Low Mass Harmonic Radar Transponders for Insect Tracking Applications*

- **M.Sc.** 2007 – 2010
  Electrical Engineering
  K. N. Toosi University of Technology
  Tehran, Iran

- **B.Sc.** 2002 – 2007
  Electrical Engineering
  University of Isfahan
  Isfahan, Iran

WORK EXPERIENCE

- **Iranian Space Research Center,** *Tehran, Iran* 2017 – 2018
  RF Design Engineer

- **Bakhtar,** *Tehran, Iran* 2016 – 2017
  Microwave Engineer

- **Ertebatat Baregheh Pardis,** *Tehran, Iran* 2014 – 2016
  RF Engineer

PROJECT PORTFOLIO and SKILLS

- **Design expertise:**
  - Design and implementation of the RF Section of Superheterodyne Receivers and Transmitters, encompassing various frequency bands, including X-band and Ku-band..

- Design and implementation of the Microwave passive devices (Filters, Antenna, Power dividers and directional couplers, in wide ranges of frequencies and structures).
- Design and implementation of Microwave active devices (Power amplifiers, Frequency Synthesizer).
- Design and implementation of Electronic circuits (Voltage regulators, Power amplifier bias controller, . . .).
- Testing and troubleshooting the wide range of devices.

- **Lab expertise:**
  - All electronic lab instruments (Oscilloscope, Power supplies, Multimeter).
  - All Microwave and RF lab instruments (Vector Network Analyzer, Spectrum Analyzer, . . .).
  - Antenna measurements
- **Data Science:**

  Proficient in data manipulation and analysis using R packages.

SOFTWARE PROFICIENCY

- **Industrial tools:**
  - Ansys HFSS
  - CST
  - Altium Designer
  - PathWave Advanced Design System (ADS)
  - AWR Microwave Office
- **Programming and other Tools:**
  - R
  - MATLAB
  - LaTaX
  - Git

JOURNAL PUBLICATIONS

1. **R. Ala, C. D. Rouse and B. G. Colpitts, "An Extra Low-Mass Harmonic Radar Transponder for Insect Tracking Applications," in *IEEE Transactions on Radar Systems*, vol. 1, pp. 146-154, 2023, doi: 10.1109/TRS.2023.3286270.**
2. **R. Ala, B. Ahmadi, "A comparative study of high-power low-pass filters for satellite communications," *Microw Opt Technol Lett*, 2019; 61: 1968-1971. doi: 10.1002/mop.31783.**

REFERENCES

1.	**Dr Chris Rouse**	Professor at UNB	chris.rouse@unb.ca
2.	**Dr Bruce Colpitts**	Professor at UNB	colpitts@unb.ca
3.	**Dr Brent Petersen**	Professor at UNB	Brent.Petersen@unb.ca