MAJID AHMED

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<https://majid-0.github.io>

**OBJECTIVE**

Electrical engineering master's student eager to leverage academic expertise and hands-on experience in roles that foster innovation and problem-solving.

**EDUCATION**

2022 – Present **American University of Sharjah**, Sharjah, UAE

Master of Science in Electrical Engineering

Expected graduation date: December 2024

2018 – 2022 **American University of Sharjah**, Sharjah, UAE

Bachelor of Science in Electrical Engineering (**cum laude**)

graduation date: June 2022

**Work**

2022 – 2024 **American University of Sharjah**, Sharjah, UAE

Graduate Research Assistant:

* Led the development of an amateur portable satellite ground station

**AWARDS, HONORS, & Memberships**

2019- 2022 Placed on the Dean’s List for 4 times and on the Chancellor’s List twice.

2023 IEEE Eta Kappa Nu (HKN) Member

2024 Tau Beta Pi (TBP) Engineering Honor Society Member

**COMPUTER SKILLS**

* Python Programming
* MATLAB programming
* Siemens TIA Portal for PLC programming
* Keysight’s Advanced Design System (ADS)
* ANSYS Electronics (HFSS)
* NI LABVIEW
* ORCAD PSPICE circuit simulations
* NI MULTISIM & ULTIBOARD
* Dspace

**RESEARCH PROJECTS**

* **Design of Class AB Power Amplifier:** Designed a Class AB Power amplifier for high-frequency applications using Keysight ADS.
* **Pyramidical Horn Antenna Design:** Designed and verified the performance of a horn antenna for a 2.6-3.95 GHz frequency range using Ansys Electronics for performance simulation followed by 3D printing to fabricate the antenna.
* **Automatic Modulation Classification: Investigated the use of machine learning for automatic modulation classification for varying signal to noise ratios.**
* **2D Brain Tumor Segmentation: investigated the use of machine learning to segment brain tumor region using 2D slices from multimodal MRI scans.**
* **2D FDTD Horn Antenna Simulation: developed a simplified electromagnetic simulation of a horn antenna.**
* **Photovoltaic System Design:** Simulated the design of a buck-boost converter to implement an MPPT control algorithm.
* **Portable** **Amateur Satellite Ground-station:** Developed a software program that calculates satellite orbits, controls antenna rotator positioning, and interfaces with a software-defined radio (SDR) to receive satellite transmissions.
* **Microwave Non-destructive Testing for food:** Studied how the dielectric properties of cold cuts change as spoilage occurs and designed a simplified proof of concept measurement setup to detect spoilage.
* **Design of a 4x4 Butler Matrix:** Designed a 4x4 Butler matrix for analog beamforming applications through electromagnetic simulations.

**PUBLICATIONS**

**Article** (Ahmed2024)   
  
Ahmed, Majid / Hammi, Oualid   
**Hybrid Digital/Analog Predistorter Architecture With Enhanced Robustness to Hardware Impairments**   
2024   
  
*IEEE Access* , Vol. 12   
Institute of Electrical and Electronics Engineers (IEEE)   
p. 113928-113943   
**InProceedings** (Ahmed2024a)   
  
Ahmed, Majid / Dalbah, Ahmad / Hammi, Oualid / Ghannouchi, Fadhel M.   
**Neural Networks Based Behavioral Modeling of Dual-Band RF Power Amplifiers using Augmented BiLSTM Structures**   
2024-02   
*2024 International Conference on Artificial Intelligence in Information and Communication (ICAIIC)*   
  
IEEE   
**Article** (Ahmed2024b)   
  
Ahmed, Serien / Ahmed, Majid / Bensmida, Souheil / Hammi, Oualid   
**Power Amplifier Predistortion Using Reduced Sampling Rates in the Forward and Feedback Paths**   
2024-05   
  
*Sensors* , Vol. 24, No. 11   
MDPI AG   
p. 3439   
**InProceedings** (Ahmed2023)   
  
Ahmed, Majid / Zakaria, Amer S. / Hammi, Oualid   
**A Low-Cost Portable and Agile Amateur Satellites Ground-Station**   
2023-10   
*2023 IEEE 9th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)*   
  
IEEE   
**InProceedings** (Ali2023)   
  
Ali, Asma / Ahmed, Majid / Hammi, Oualid   
**BiLSTM Neural Network Digital Predistorter with Reduced Feedback Sampling Rate**   
2023-08   
*2023 IEEE Symposium on Wireless Technology &amp; Applications (ISWTA)*   
  
IEEE

**ADDITIONAL SKILLS**

* + Pays attention to details
  + Meets deadlines
  + Teamwork
  + Familiar with poster presenting
  + Willing to accept feedback

**Languages**

* Arabic, English Fluent

References:

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|  | Professor John Doe |
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|  | Professor John Doe |
|  | **Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam condimentum, diam quis convallis euismod, arcu mi ullamcorper lorem, a vestibulum nunc magna at sem. Sed in risus ac felis varius blandit. D** |