



# MOHAMMAD GHOLIZADEH

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## Personal Information

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- **Date of Birth:** October 10, 1993
- **Place of Birth:** Ahvaz, Iran
- **Nationality:** Iranian
- **Gender:** Male
- **Marital Status:** Married

## Education

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- **2020-2023:** M.Sc. of Electrical Engineering (System communications), Department of Electrical Engineering, Khajeh Nasir al-Din Toosi University of Technology, Tehran, Iran.  
Analysis of cluster-based multi-hop millimeter wave networks (master's thesis, grade: 18.99/20)  
**Supervisor:** Dr. Ali Habibi Bastami
- **2012-2016:** B.Sc. of Electrical Engineering, Department of Electrical Engineering, Jundishapur University of Technology, Dezful, Iran

## Publications

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- M. Gholizadeh, A.H. Bastami, " Cluster-Based Multi-Hop MMWave Networks: Relay Selection and Performance Analysis ", accepted for publication in IEEE Transactions on Communications (May 2025).

## Honors and Awards

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- Paper accepted for publication in the prestigious journal IEEE Transactions on Communications (TCOM): "Cluster-Based Multi-Hop MMWave Networks: Relay Selection and Performance Analysis" (May 2025).
- The best seminar titled "millimeter wave communication" in the 7th student seminar of Electrical and computer engineering updates in Khajeh Nasir al-Din Toosi University of Technology, Tehran, Iran (2022).
- Accepted through National University Entrance Exam to Iran University of Khajeh Nasir-o-din Toosi, College of Engineering for M.Sc. degree in Electrical Engineering (Telecommunications, System), and ranked 315 among approximately 167000 participants (2020).
- Accepted through National University Entrance Exam to University of Dezful, College of Engineering for B.Sc. degree in Electrical Engineering and ranked 2253 among approximately 420000 participants (2012).

## Research Interests

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- Wireless Communications
- Massive MIMO
- Millimeter Wave Networks
- Cooperative Networks (Relay Selection Algorithms)
- Beamforming
- Optimization Theory
- Machine Learning (Supervised Learning & Unsupervised Learning, Deep Learning & Reinforcement Learning)

## Academic Experiences and researches

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- Cluster-Based Multi-Hop MMWave Networks: Relay Selection and Performance Analysis (paper).
- Analysis of cluster-based multi-hop millimeter wave networks (master's thesis).
- Study and analysis of millimeter wave communications (master's seminar).
- Investigating optimization applications in millimeter wave communications.
- Capacity analysis in relay channels.
- Using the constant modulus algorithm for semi-blind adaptive beamforming in smart antennas.
- Investigating the question of limited noise or limited interference for millimeter wave networks.
- Study of millimeter wave mobile communication for 5G cellular.
- Implementation of coding and decoding arithmetic program in python language. [Click here](#)
- Design and manufacture of a smart, wireless temperature control system for closed environments, utilizing the Atmega16 microcontroller, HMT&R transmitter and receiver modules, and LM35 temperature sensor (bachelor's thesis). [Click here](#)

## Teaching Experiences

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**Lecturer** of the following courses at **GAJ Andisheh Moalem** Institute (2011-2020), Khuzestan, Iran

- Calculus I (2012)
- Calculus II (2013)
- Differential Equations (2014)
- Engineering Mathematics (2014)
- Electronic Circuits (2015)
- Communication I (2016-2017)
- Signals and systems (2019-2023)
- Engineering Probability and Statistics (2019-2023)

## Licenses & Certifications

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- Machine Learning Specialization, Online Course, Coursera, Stanford University, [Click here](#)
- Unsupervised Learning, Recommenders, Reinforcement Learning, Online Course, Coursera, Stanford University, [Click here](#)
- Advanced Learning Algorithms, Online Course, Coursera, Stanford University, [Click here](#)

- Supervised Machine Learning: Regression and Classification, Online Course, Coursera, Stanford University, [Click here](#)
- Machine Learning with Python, Online Course, Coursera, IBM, [Click here](#)
- MATLAB Programming for Engineers and Scientists Specialization, Online Course, Coursera, Vanderbilt University, [Click here](#)
- Introduction to Programming with MATLAB, Online Course, Coursera, Vanderbilt University, [Click here](#)
- Mastering Programming with MATLAB, Online Course, Coursera, Vanderbilt University, [Click here](#)
- Introduction to Data, Signal, and Image Analysis with MATLAB, Online Course, Coursera, Vanderbilt University, [Click here](#)
- Programming for Everybody (Getting Started with Python), Online Course, Coursera, University of Michigan, [Click here](#)
- Python Data Structures, Online Course, Coursera, University of Michigan, [Click here](#)
- Using Python to Access Web Data, Online Course, Coursera, University of Michigan, [Click here](#)
- Learning MATLAB, Online Course, LinkedIn
- MATLAB Programming Fundamental, IEEE KNTU Student Branch

## Computer and Programming Skills

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- **Programming:** MATLAB (advanced), Python (advanced), C++ (intermediate)
- **Technical Applications:** Visual Studio Code (advanced), Visio (intermediate), Pycharm (advanced), LT Spice (advanced), Proteus Design Suite (advanced), Code Vision AVR (advanced)
- **Data Analysis:** Microsoft office (Word (advanced), Excel (advanced), Power Point (advanced), etc.), Latex (advanced)
- **Hardware Skills:** Oscilloscope (advanced), Multi Meter (advanced)

## Languages

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- Persian (native)
- English (fluently)
- Arabic (familiar)

## Recreational Activities

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### Art:

- Playing guitar (Basic)
- Playing piano (Basic)

### Sports:

- Football (advanced)
- Volleyball (intermediate)
- Ping-Pong (intermediate)

### Activity:

- Reading English novels and magazines
- Watching Documentaries

## References

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### **Dr. Ali Habibi Bastami**

Associate Professor

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