

Rawan Alghamdi

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Education

Ph.D. Candidacy [King Abdullah University of Science and Technology \(KAUST\)](#) 2022 – current

- Exploring signal processing techniques for time-varying channels in next-generation wireless communication systems.
- Advisors: Prof. Mohamed-Slim Alouini and Prof. Tareq Al-Naffouri.

Master of Science [King Abdullah University of Science and Technology \(KAUST\)](#) 2020 – 2022

- Program: Electrical and Computer Engineering.
- Thesis: *Joint Beamforming and User Association in Cloud-Enabled High-Altitude Platform Station.*
- Grade Point Average: 3.97/4.0
- Advisors: Prof. Mohamed-Slim Alouini and Prof. Tareq Al-Naffouri.

Bachelor of Science [Effat University](#) 2015 – 2020

- Program: Electrical and Computer Engineering.
- Capstone Project: *Design of Multi-hop Visible Light Communication Networks Using Transmit Diversity Schemes.*
- Grade Point Average: 3.88/4.0
- Advisor: Prof. Hayssam Dahrouj.

Publications

- **R. Alghamdi**, H. Dahrouj, T. Y. Al-Naffouri and M-S. Alouini, "Equitable 6G Access Service via Cloud-Enabled HAPS for Optimizing Hybrid Air-Ground Networks," in IEEE Transaction on Communication, vol. 72, no. 5, May 2024. [\[Online\]](#)
- **R. Alghamdi**, H. Dahrouj, T. Y. Al-Naffouri and M-S. Alouini, "Toward Immersive Underwater Cloud-Enabled Networks: Prospects and Challenges," in IEEE BITS the Information Theory Magazine, vol. 3, no. 2, pp. 54-66, June 2023. [\[Online\]](#)
- H. Dahrouj, **R. Alghamdi**, *et al.*, "An overview of machine learning-based techniques for solving optimization problems in communications and signal processing," in IEEE Access, vol. 9, May 2021. [\[Online\]](#)
- A. Faisal, **R. Alghamdi**, *et al.*, "Diversity Schemes in Multi-hop Visible Light Communications for 6G Networks," in Procedia Computer Science, vol. 182, Jan. 2021. [\[Online\]](#)
- **R. Alghamdi**, *et al.*, "Intelligent Surfaces for 6G Wireless Networks: A Survey of Optimization and Performance Analysis Techniques," in IEEE Access, vol. 8, Oct. 2020. (*cited 160+ times*)[\[Online\]](#)
- **R. Alghamdi**, N. Saeed, H. Dahrouj, and T. Y. Al-Naffouri, "Towards Ultra-Reliable Low-Latency Underwater Optical Wireless Communications," in Proceedings of IEEE 90th Vehicular Technology Conference (VTC2019-Fall), Honolulu, HI, USA, 2019. [\[Online\]](#)

Teaching Appointments

- Digital Communication and Coding** (*MSc. level*) **KAUST** Fall 2022, 2023, 2024
- Graduate teaching assistant for Prof. Tareq Al-Naffouri.
- Advanced Wireless Communication Systems** (*Ph.D. level*) **KAUST** Summer 2023, 2024
- Graduate teaching assistant for Prof. Mohamed-Slim Alouini.
- Stochastic Processes** (*MSc. level*) **KAUST** Spring 2023, 2025
- Graduate teaching assistant for Prof. Mohamed-Slim Alouini.
- Introduction to Programming with Python** (*BSc. and MSc. level*) **KAUST** Summer 2021
- Graduate teaching assistant for Prof. Malek Smaoui.

Professional Service

- Podcast Coordinator for IEEE Women in Engineering (WIE) Podcast
- Peer Reviewer for IEEE Transactions on Communication
- Peer Reviewer for IEEE Transactions on Wireless Communications
- Peer Reviewer for IEEE Wireless Communications Letters
- Peer Reviewer for IEEE Transactions on Vehicular Technology
- Peer Reviewer for IEEE Internet of Things Journal
- Peer Reviewer for IEEE Sensors Journal
- Peer Reviewer for International Conference on Acoustics, Speech, and Signal Processing
- Peer Reviewer for IEEE Global Communications Conference (GLOBECOM)
- Peer Reviewer for IEEE International Conference on Communications (ICC) Workshop

Fellowships, Awards, and Honors

- IEEE Women in Engineering (WIE) Travel Grant
- KAUST-CEMSE Dean's Excellence Award (awarded to the Top 20% of Ph.D. students)
- King Abdullah University of Science and Technology (KAUST) Graduate Student Fellowship
- Communications, Space & Technology Commission (CST) and IEEE Future Networks Initiative Competition (Second Place)
- King Abdullah University of Science and Technology (KAUST) Master Student Fellowship
- Effat Students Scientific Research Forum (Best Paper Presentation)
- The 17th Learning and Technology Conference (Best Paper Award)
- Saudi Summer Internship (SSI) Poster Competition (First place)
- Effat University Dean's List

Activities

- Communication Theory Workshop: Poster
- International Zurich Seminar on Information and Communication: Poster
- International Network Generations Roadmap: Satellite Working Group (Invited Talk)
- Communications and Networking for Aerial, Terrestrial, Marine and Underwater Robotics Workshop (Invited Talk)
- Abu-Dhabi 2022 6G Summit: Poster
- Effat University research and innovation standing committee student representative
- Effat University IEEE student branch chair