

Dr. Yazid M. Khattabi

Curriculum Vitae (May 1, 2019)

Contact Information

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Nationality

Jordanian.

Current Occupation

Assistant Professor of Electrical Engineering.

Topics of Research Interests

- Wireless & Digital Communication Theory.
- Channel Coding & Information Theory.
- Physical-Layer Design & Performance Evaluation.
- Diversity Techniques.
- Relaying and Cooperative Wireless Systems.
- Multiple Input Multiple Output (MIMO) Systems.
- Spatial Modulation Systems.
- Interference Cancellation Techniques.
- Space-Time-Coding Systems.
- Physical-Layer Security.
- High Mobility (V2V) Cooperative Networks.
- LTE Resource Allocation.
- Adaptive-Transmission Schemes.
- Practical System Architecture Design.
- 5G Device-to-Device (D2D) Communications.

Education

Jan. 2013 – Aug. 2016 **Ph.D., Electrical Engineering**, *University of Mississippi*, Oxford, MS USA.

- **GPA:** 3.91/4.00.
- **Dissertation Topic:** *Performance Evaluation and Improvement of Wireless Amplify-and-Forward Cooperative-Based Systems under Nodes Mobility and Imperfect CSI Estimation Impacts.*
- **Area of Study:** Wireless Communications.
- **Key courses:** Digital Communications, Information Theory and Convolutional Coding, Spread Spectrum Communications, Mobile and Wireless Communications, Applied Probability Modeling, Introduction to Algorithms, Mathematical Statistics II, Advanced Mathematical Statistics I, Detection Theory, Integer and Non-integer Optimization.

2008–2010 **M.Sc., Electrical Engineering**, *Jordan University of Science and Technology (JUST)*, Irbid, Jordan.

- **Percentage Average:** 88.5% (Top 5% of graduates).
- **Thesis Topic:** *Different Diversity Techniques Applied to Time-Selective and Frequency-Nonselective Rayleigh Fading Channels.*
- **Area of Study:** Wireless Communications.
- **Key courses:** Digital Data Transmission, Wireless Networking, Wireless Communications, Advanced Wireless Communications, Error Correcting Coding, Image Processing, Antenna and Radio Wave Propagation, Random Processes.

2003–2008 **B.Sc., Electrical Engineering**, *Jordan University of Science and Technology (JUST)*, Irbid, Jordan.

- **Percentage Average:** 86% (rank 2 out of 101).
- **Undergraduate Project:** *Binary Frequency Shift Keying (BFSK) Digital Communication System: Design and Hardware Implementation.*
- **Area of Study:** Communications and Electronics.
- **Key courses:** RF Communications Systems, Mobile Communications, Antenna Design, Microwave Systems, Signals & Systems Analysis, Digital Signal Processing, Computer Networks, Control Systems, Electrical Circuits, Electronics.

2002–2003 **Secondary School Certificate, Scientific Stream**, *Kufranjah Secondary School*, Kufranjah, Ajloun, Jordan.

- **Percentage Average:** 92.9%.

Academic & Research Experience

Aug. 2016 to Present **Assistant Professor in Electrical Engineering**, *University of Jordan*, Amman, 11942 Jordan.

2008-2010 **Teacher Assistant in Electrical Engineering**, *Jordan University of Science and Technology (JUST)*, Irbid, Jordan.

- Electric Circuits LAB (instructor).
- Electronic Circuits LAB (instructor).
- Signals and Linear Systems (grading assignments).
- Electromacnatics I (grading assignments).
- Electronics I (grading assignments).

Academic Awards

- Spring 2016** Graduate Fellowship, *University of Mississippi*, Oxford, MS USA.
- November 2015** Best Poster Award, *Broadband Wireless Access & Applications Center (BWAC) Workshop (NSF-sponsored)*, Oxford, MS USA.
- 2013-2015** Department of Electrical Engineering Assistantship,, *University of Mississippi*, Oxford, MS USA.
- Summer 2014** Summer Research Assistantship Award, *Graduate School*, University of Mississippi, Oxford, MS USA.
- 2008-2010** Graduate Scholarship, *Ministry of Higher Education and Scientific Research (MHESR)*, Amman, Jordan.
- 2003-2008** Undergraduate Scholarship, *MHESR/Scientific Research Support Fund*, Amman, Jordan.

List of Publications

Refereed Journal Papers

- Yazid Khattabi, "New Analytical Approach in the SER Evaluation of CSIN-Assisted AF Dual-Hop Wireless Systems," *IEEE Wireless Communications Letters*, vol. 8, no. 2, pp. 604-607, April 2019.
- Yazid Khattabi, "Exact error rate analysis of two-hop AF Rayleigh fading cooperative systems with variable amplification gain," *AEU-International Journal of Electronics and Communications*, vol. 100, pp. 86-94, February 2019.
- Yazid Khattabi and Mustafa M Matalgah, "Alamouti-OSTBC Wireless Cooperative Networks With Mobile Nodes and Imperfect CSI Estimation," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 4, pp. 3447-3456, April 2018.
- Yazid Khattabi and Mustafa M Matalgah, "Performance Analysis of Multiple-Relay AF Cooperative Systems over Rayleigh Time-Selective Fading Channels with Imperfect Channel Estimation," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 1, pp. 427-434, January 2016.
- Yazid Khattabi and Mustafa M Matalgah, "Improved Error Performance ZFSTD for High Mobility Relay-Based Cooperative Systems," accepted for publication in *IET Electronics Letters*.

- **Yazid Khattabi**, Haythem Bany Salameh, and Mohammad Al-Ibrahim, “**Performance Study of Diversity Combining for Error-floor Reduction over Fast Fading Channels**,” *WSEAS Transaction on Communications*, Vol. 12 Issue 9, pp. 479-487, September 2013.

Refereed Conference Papers

- **Yazid Khattabi** and Mustafa M Matalgah, “**A Low-Complexity Sub-Optimal Decoder for OSTBC-Based Mobile Cooperative Systems**,” accepted to appear *in the Proceedings of the 2016 IEEE Wireless Communications and Networking Conference (IEEE WCNC 2016)*, 3-6 April, 2016, Doha, Qatar.
- **Yazid Khattabi** and Mustafa M Matalgah, “**OSTBC Transmission over Cooperative Diversity Systems under Nodes Mobility Impact**,” accepted to appear *in the Proceedings of the 2016 IEEE Wireless Communications and Networking Conference (IEEE WCNC 2016)*, 3-6 April, 2016, Doha, Qatar.
- **Yazid Khattabi** and Mustafa M Matalgah, “**Conventional and Best-Relay-Selection Cooperative Protocols Under Nodes-Mobility and Imperfect-CSI Impacts: BER Performance**,” *in the Proceedings of the 2015 IEEE Wireless Communications and Networking Conference (IEEE WCNC 2015)*, 8-12 March, 2015, New Orleans, USA.
- **Yazid Khattabi** and Mustafa M Matalgah, “**Conventional AF Cooperative Protocol Under Nodes-Mobility and Imperfect-CSI Impacts: Outage Probability and Shannon Capacity**,” *in the Proceedings of the 2015 IEEE Wireless Communications and Networking Conference (IEEE WCNC 2015)*, 8-12 March, 2015, New Orleans, USA.
- **Yazid Khattabi** and Mustafa M Matalgah, “**Performance Analysis of AF Cooperative Networks with Time-Varying Links: Error Rate and Capacity**,” *IEEE Proceedings of the 2014 Wireless Telecommunications Symposium (WTS 2014)*, 9-11 April, 2014, Washington, DC, USA.
- **Yazid Khattabi** and Mustafa M Matalgah, “**Performance Analysis of AF Cooperative Networks with Time-Varying Links: Outage Probability**,” *IEEE Proceedings of the 2014 Wireless Telecommunications Symposium (WTS 2014)*, 9-11 April, 2014, Washington, DC, USA.

Conference Presentations

- **Yazid Khattabi** and Mustafa M Matalgah, “**Performance Analysis of Wireless Cooperative Networks with Moving Nodes**,” *In the Proceedings of the 2013 Mid-South Area Engineering and Science Conference (MAESC 2013)*, 28–29 October, 2013, The University of Mississippi, Oxford, MS, USA.

Posters

- **Yazid Khattabi** and Mustafa M Matalgah, “**BER Performance of Amplify-and-Forward Cooperative Networks with Mobile Nodes**,” *Broadband Wireless Access & Applications Center (BWAC) Workshop*, January 2015, Oxford, MS, USA.

- **Yazid Khattabi** and Mustafa M Matalgah, “Improved Error Performance Zero-Forcing Decoder for High Mobility OSTBC-Based Cooperative Systems,” *Broadband Wireless Access & Applications Center (BWAC) Workshop*, November 2015, Oxford, MS, USA.

Industry Project Work Experience

Mar. **RF & Electronics Systems Design-Engineer**, *King Abdullah II Design and Development Bureau-KADDB*, Amman, Jordan.
2011–Dec. 2012

Technical Skills

- Hands-on hardware design, implementation, and maintenance-debugging experience: baseband Electronics and Integrated Circuits.
- Technical knowledge & experience in circuit simulation, designing Printed Circuit Boards (PCB) layout & schematic capture, and fabrication process.
- Basic experience in communication protocols: UART, RS232 (MAX232), I2C, USB, SPI.
- knowledge in C++ Microprocessors Programming.
- RF Modules: ZigBee, Bluetooth, XTend OEM, CISCO IEEE 802.11 Modules, and others.
- Basic experience: GSM, CDMA, WCDMA (UMTS), 3GPP, LTE, WiMax, OFDMA, TCP/IP, MAC, etc.
- Radio-Frequency (RF) circuits design, hardware implementation, and maintenance (power amplifiers, filters, and matching circuits).
- RF lab equipment: Spectrum Analyzer, Network Analyzer, Signal Generator, Oscilloscope, Power Meter, Signal Source Analyzer
- Wireless Telecommunication Systems design, selection, and testing for Unmanned-Ground-Vehicles (UGVs), Unmanned-Aerial-Vehicles (UAVs), and Surveillance Systems.

Technical Projects

- Power Circuits and Interfacing Boards: design and hardware implementation
- Mini-Digital-Voltmeter for Unmanned-Aerial-Vehicles: design and hardware implementation
- Wire-line and Wireless (remote) DC-Motors Drivers: design and hardware implementation
- RF Global-Positioning-System (GPS) Jammer: design and hardware implementation
- RF GSM-900 and GSM-1800 Jammer: design and hardware implementation

Training Tutorials

- RF Telecommunications Printed Circuit Boards Design, KADDB, Jordan.

- Electronic Devices Maintenance, IEEE branch, JUST, Irbid, Jordan.
- Practical Digital-Signaling-Processing Over Embedded Systems, KADDB, Jordan.
- Fundamentals of Laser Technology, KADDB, Jordan.
- Autodesk Inventor Basics, KADDB, Jordan.

Summer Undergraduate Internship, Jordan Telecommunications Group, Irbid, 2007 Jordan.

Other Technical Skills

Editorial Reviewer for several leading Journals, e.g.:

- IEEE Transactions on Vehicular Technology.
- IEEE Access.
- IEEE Wireless Communications Letters.
- Transactions on Emerging Telecommunications Technologies.
- IET Communications.
- IET Signal Processing.
- International Journal of Electronics and Communications.
- International Journal of Communication Systems
- IET Electronics Letters.

Technical Program Committee (TPC) member in leading IEEE and international conferences, e.g.:

- 2019 JEEIT
- 2019 PICECE
- Mosharaka International Conferences

Membership

- Member of Institute of Electrical and Electronics Engineers (IEEE).
- Member of IEEE Communications Society.
- Member of Jordan Engineers Association.
- Member of the International Association of Engineers (IAENG).

References

- 1 Mustafa M. Matalgah (PhD adviser) *mustafa@olemiss.edu*
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- 2 Ramanarayanan "Vish" Viswanathan *viswa@olemiss.edu*
Department Chair & Professor of Electrical Engineering, University of Mississippi, Oxford, MS 38655
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