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Title Given name Father's name Grandfather's name Family name

# Dr. Mutamed Turki Nayef Khatib

### **Associate Professor**

### Personal Info.

Marital status: Married
Nationality: Palestinian
Date of birth: 3 May 1973
Place of birth: Nablus
Gender: Male

### **Education**

[1989-1990] Secondary School Degree

Islamic Secondary School, Nablus, Palestine, Av.: 84.5%

[1990-1996] B.Sc. in Telecommunication Engineering

Yarmouk University, Irbid, Jordan, Av.: 70.5%, Rating: C (good)

[2001-2003] M.Sc. in Electrical & Electronic Engineering,

Digital Mobile Telecommunications

Jordan University for Science & Technology, Irbid, Jordan, Av.: 80%

[2006-2009] Ph.D. in Electrical & Electronic Engineering,

Wireless and Mobile Systems

University of Science Malaysia (USM), Penang, Malaysia.

**B.Sc. Project:** Single Quadrant Digital Waveform Frequency Synthesis using Microprocessor Techniques.

**M.Sc. Thesis:** Efficient Modulations with OFDM for Next-Generation Mobile Communication Systems.

This thesis studies the BER performance of MDPSK-OFDM signals in mobile communication systems. The performance analysis is conducted for a post-detection equal-gain combining diversity receiver using Nakagami-m fading channels. BIB-design technique is applied to improve the performance.

Ph.D. Thesis: Transmitter Precoding and Code-sharing Techniques using Block Transmission System.

This thesis presents new techniques that improve the performance of the downlink channel in the communication system. The first system simplifies the mobile unit using a precoding technique at the base station that reduces the receiver at the mobile unit to a decision device only. The other two systems increase the signal to noise ratio of the precoding system by sharing the equalization process between the transmitter and the receiver in different values.

# **Training**

#### [2/94 - 8/94]Training as partial fulfillment of B.Sc. Degree

Jordan Telecommunication Corporation & BAQA Earth Station Amman,

Jordan.

### [May, 2000] Training course: "T.V. Signal Measurements"

Arabian Center for Broadcasting Training, Arab States League, Damascus,

Syria.

#### Workshop: "Developing Methods for Co-Design with FPGA" [Jan., 2010]

AnNajah National Univ / IUT Cachan, Paris-Sud11 Univ. (France), Nablus,

Palestine.

### [Mar., 2010] Workshop: "Signal Processing and Control with DSP"

Palestine Technical Univ / IUT Cachan, Paris-Sud11 Univ (France), Tulkarm.

Palestine.

### Work

#### [2/96 - 9/05] **Transmission, Outside Broadcasting & Studio Engineer**

Palestinian Broadcasting Corporation (PBC),

Ramallah, Palestine.

#### [9/02 - 6/03] **Teaching Assistant During M.Sc.**

Jordan University of Science and Technology,

Irbid, Jordan.

#### **Instructor** (part time) [9/04 - 6/05]

Electrical Engineering Department, AnNajah National University,

Nablus, Palestine.

### [9/05 - 8/09] Instructor

Electrical Engineering Department,

Palestine Technical University (Kadoorie),

Tul Karm, Palestine.

### [8/09 – 11/14] Assistant Professor

Telecommunication Engineering and Technology Department,

Palestine Technical University (Kadoorie),

Tul Karm, Palestine.

### [2/11 - 6/11] Assistant Professor (part time)

Telecommunication Engineering Department,

Arab American University,

Jenin, Palestine.

### [9/11 – 8/13] Head of Telecommunication Engineering and Technology Dept.

Palestine Technical University (Kadoorie),

Tul Karm, Palestine.

### [9/13 – 8/17] Dean of College of Engineering and Technology,

Palestine Technical University (Kadoorie), Tul Karm, Palestine.

### [12/14 - NOW] Associate Professor

Telecommunication Engineering and Technology Department, Palestine Technical University (Kadoorie), Tul Karm, Palestine.

### [9/17 – NOW] Vice President for Academic Affairs,

Palestine Technical University (Kadoorie), Tul Karm, Palestine.

# **International Projects and Grants:**

### [06/14 – 05/15] Palestinian American Research Center (PARC).

"Evaluation of Electromagnetic Radiation Safety from Wireless Transmission Systems in Tulkarm City"

### [2014 - 2016] TEMPUS.

"Joint MSc in Electrical Engineering (JMEE)"

### [2016 - 2018] ERASMUS+.

"Research Output Management through Open Access Institutional Repositories in Palestinian Higher Education (ROMOR)"

### **Publications**

### **Research Interests:**

- Broadband Access Network and Services
- Adaptive Signal Processing for Communications
- Cellular Networks

### **Books:**

- [1] **Mutamed Khatib,** Block Transmission in Wireless Communications: Precoding and Code Sharing Techniques, Lambert Academic Publishing, Germany, 2010. (ISBN: 978-3-8433-7203-9)
- [2] **Mutamed Khatib**, *OFDM for Mobile Communications Systems: Efficient Modulations and Techniques*, Lambert Academic Publishing, Germany, 2011. (ISBN: 978-3-8443-0373-5)

### **Edited Books:**

[1] Advanced Trends in Wireless Communications, Edited by Mutamed Khatib, INTECH Open Access Publisher, Croatia, 2011. (ISBN 978-953-307-573-0) 532 pages.

[2] Contemporary Issues in Wireless Communications Edited by Mutamed Khatib, INTECH Open Access Publisher, Croatia, 2014. (ISBN 978-953-51-1732-2), 252 pages.

### Journals:

- [1] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib** and Syed Idris Syed Hassan, *Performace Improvement of Synchronous Multiuser Communication Systems by using Process Sharing Techniques*, WSEAS Transactions on Communications, Issue 12, Volume 6, pp. 875-880, December 2007. (ISSN: 1109-2742)
- [2] **Mutamed Khatib**, Mohd Fadzil Ain, Farid Ghani and Syed Idris Syed Hassan, *Study of Parameters Effect on the Performance of Precoding and Equalizer Sharing Systems*, NAUN International Journal of Communications, Issue 1, Volume 2, pp. 54-64, December 2008. (ISSN: 1998-4480)
- [3] Farid Ghani, **Mutamed Khatib**, *Adaptive Transmitter Precoder in Synchronous Communication Systems*, International Journal of Engineering and Technology IJET/IJENS Volume 10, Issue 5, pp. 25-29, October 2010. (ISSN: 2077-1185).
- [4] **Mutamed Khatib**, Farid Ghani, *Block Transmission Systems in Synchronous Multiuser Communications*, International Journal of Latest Trends in Computing IJLTC, Volume 2, Issue 1, pp. 72-79, March 2011. (ISSN: 2045-5364)
- [5] Arafat Zaidan, **Mutamed Khatib** and Basim Alsayid, *A controlling Strategy for Industrial Machines using Bluetooth Technology*, International Journal of Latest Trends in Computing IJLTC (UK), Volume 2, Issue 1, pp. 67-71, March 2011. (ISSN: 2045-5364).
- [6] Arafat Zaidan, **Mutamed Khatib** and Basim Alsayid, *Mobile SMS Based Controller with Message Feedback*, International Journal of Latest Trends in Computing IJLTC (UK), Volume 2, Issue 2, pp. 269-275, June 2011. (ISSN: 2045-5364).
- [7] **Mutamed Khatib**, Single Quadrant Digital Waveform Frequency Synthesis, Journal of Asian Scientific Research, Volume 2, Issue 11, pp. 766-772, November 2012. (Online ISSN: 2223-1331, Print ISSN: 2226-5724).
- [8] **Mutamed Khatib**, *Use of Chaotic Behavior in Communication Security*, Journal of Asian Scientific Research, Volume 2, Issue 11, pp. 698-704, November 2012. (Online ISSN: 2223-1331, Print ISSN: 2226-5724).
- [9] **Mutamed Khatib**, Evaluation of Electromagnetic Radiation Safety from Wireless Transmission Systems in Tulkarm City Palestine, International Journal of Engineering and Innovative Technology (IJEIT), Volume 3, Issue 10, pp. 38-41, February 2014. (ISSN: 2277-3754)

### **Conferences:**

- [1] Farid Ghani, Mohd Fadzil Ain and **Mutamed Khatib**, *Transmitter Precoding in Synchronous Multiuser Communications*, The 8th Seminar on Intelligent Technology and its Applications (SITIA07), 9-10 May 2007, Surabaya, Indonesia. (ISBN: 978-979-95989-9-8)
- [2] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib**, Syed Idris Syed Hassan and Mandeep Singh, *Transmitter and Receiver Process Sharing In Synchronous Multi-user Communication*, International Conference on Robotics, Vision, Information and Signal Processing (ROVISP07), 28 30 November 2007, pp. 692-695, Penang, Malaysia. (ISBN: 978-983-43178-1-2)
- [3] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib**, Syed Idris Syed Hassan and Mandeep Singh, *Process Division Between the Transmitter and the Receiver in Synchronous Multiuser Communications*, IEEE Asia-Pacific Conference on Applied Electromagnetics 2007 (APACE07), 4 6 December 2007, pp. 1-4, Melaka, Malaysia. (ISBN: 978-1-4244-1434-5)
- [4] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib** and Syed Idris Syed Hassan, *Simulation Model for a Process Sharing Technique in Wireless Systems*, The IEEE International Workshop on Digital infoTainment and Visualization (IWDTV-2008), 16-18 June 2008, Terengganu, Malaysia.
- [5] Mohd Fadzil Ain, **Mutamed Khatib** and Mohammad Abul Rub, *Performance of MDPSK Based on BIB Design Signals over Nakagami-m Fading Channels*, The IEEE International Workshop on Digital infoTainment and Visualization (IWDTV-2008), 16-18 June 2008, Terengganu, Malaysia.
- [6] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib** and Syed Idris Syed Hassan, *Equalizer Sharing in Wireless Communications: Simulation Study*, The IEEE 6th National Conference On Telecommunication Technologies (NCTTMCP08), 26-28 August 2008, pp. 305-308, Putrajaya, Malaysia. (ISBN: 978-1-4244-2214-2)
- [7] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib** and Syed Idris Syed Hassan, *Parameters Effect on Block Transmission Communication Systems*, 7<sup>th</sup> WSEAS International Conference on Data Networks, Communications, Computers (DNCOCO'08), 7-9 November 2008, pp. 13-17, Bucharest, Romania. (ISBN: 978-960-474-020-8)
- [8] Mohd. Fadzil Ain, Farid Ghani, Mutamed Khatib, Syed Idris Syed Hassan, Receiver Simplification in Synchronous Communication Systems-Simulation Study, 2008 IEEE International RF and Microwave Conference (RFM2008CFP) 2-4 December 2008, pp. 86-90, Kuala Lumpur, Malaysia. (ISBN: 978-1-4244-2866-3)
- [9] **Mutamed Khatib**, Mohd Fadzil Ain, Farid Ghani, *Simulation Model for an Equalizer Sharing Technique in Wireless Communication Systems*, Spectrum Research Colloquium 2008 Proceedings, 18-19 December 2008, pp. 65-69, Putrajaya, Malaysia. (ISBN: 978-983-42563-2-6)

- [10] **Mutamed Khatib**, Farid Ghani, Mohd Fadzil Ain, *Design and Simulation of a Modified Block Transmission System with Pre-Coding*, IEEE International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT-2009), 14- 16 March 2009, pp. 254 257, Aligarh, India. (ISBN: 978-1-4244-3602-6)
- [11] **Mutamed Khatib**, Simulation Model of the Block Linear Precoder, International Conference on Communications, Propagation, and Electronics (MIC-CPE2011), 4-6 February 2011, Amman, Jordan.
- [12] **Mutamed Khatib**, Single Quadrant Digital Waveform Frequency Synthesis, International Conference on Engineering and Built Environment (ICEBE 2012), 6-7 November 2012, Kuala Lumpur, Malaysia
- [13] **Mutamed Khatib**, Use of Chaotic Behavior in Communication Security, International Conference on Engineering and Built Environment (ICEBE 2012), 6-7 November 2012, Kuala Lumpur, Malaysia

### **Book Chapters:**

- [1] Mohd Fadzil Ain, Farid Ghani, **Mutamed Khatib** and Syed Idris Syed Hassan, *Parameters Effect on Block Transmission Communication Systems*, A chapter in: *Recent Advances in Data Networks, Communications, Computers*; from the series: Recent Advances in Computer Engineering, A Series of Reference Books and Textbooks, Published by WSEAS Press, Greece, 2008. (ISBN: 978-960-474-020-8)
- [2] **Mutamed Khatib**, *Block Transmission Systems in Wireless Communications*, A chapter in: *Advanced Trends in Wireless Communications*, Editor: Mutamed Khatib, INTECH Open Access Publisher, Croatia, 2011. (ISBN 978-953-307-573-0)

### **Journal Editor:**

- [1] Palestine Technical University Research Journal (PTUKRJ) Managing Editor, ISSN: 2307-8081 (print), 2307-809X (online)
- [2] Canadian Journal on Electrical and Electronics Engineering, ISSN: 1923-0540
- [3] International Journal of Latest Trends in Computing (IJLTC), E-ISSN: 2045-5364
- [4] Journal of Computer Engineering and Science, Cambridge Publisher (JCES).

### **Technical Program Committee (TPC) and Reviewer:**

- [1] Recent Advances in Communications, Circuits and Technological Innovation, Proceedings of the 3rd European Conference of Communications (ECCOM '12), Paris, France, December 2-4, 2012, ISBN: 978-1-61804-138-8
- [2] Latest Trends in Circuits, Automatic Control and Signal Processing, Proceedings of the 3rd International conference on Circuits, Systems, Control, Signals (CSCS '12), Barcelona, Spain, October 17-19, 2012, ISSN: 1790-5117, ISBN: 978-1-61804-131-9

- [3] Latest Trends in Circuits, Control and Signal Processing, Systems & Signal Processing (MUSP '13), Kuala Lumpur, Malaysia, April 2-4, 2013, ISSN: 1790-5117, ISBN: 978-1-61804-173-9
- [4] Recent Advances in Information Science, Proceedings of the 7th European Computing Conference (ECC '13), Dubrovnik, Croatia, June 25-27, 2013, ISSN: 1790-5109, ISBN: 978-960-474-304-9
- [5] Recent Advances in Circuits, Communications and Signal Processing, Proceedings of the 12th International Conference on Electronics, Cambridge, UK, February 20-22, 2013, ISSN: 1790-5117, ISBN: 978-1-61804-164-7
- [6] Progress in Electromagnetics Research (PIER), ISSN: 1070-4698, E-ISSN: 1559-8985
- [7] International Journal of Innovative Technology and Creative Engineering (IJITCE), ISSN:2045-8711
- [8] International Research Journal for Science Engineering and Technology (IRJSET)
- [9] Journal of Electromagnetic Waves and Applications (JEMWA), ISSN: 0920-5071, E-ISSN: 1569-3937
- [10] The institution of Engineering and Technology (IET) Communications Journal, ISSN: 1751-8628.
- [11] International Journal of Latest Trends in Computing (IJLTC), ISSN: 2045-5364.
- [12] International Journals of Engineering and Sciences (IJENS), ISSN: 2077-1185.
- [13] 6th International Conference on Communications, Signals and Coding (MIC-CSC2013), Spread Spectrum Communications (SSC) track, London, UK: 23-25 August 2013.
- [14] International Conference on Communications, Propagation, and Electronics (MIC-CNIT2010), Amman, Jordan, 4-6 February 2011
- [15] International Conference on Communications, Propagation, and Electronics (MIC-CPE2011), Optical Fiber Communications (OFC) track, Amman, Jordan, 4-6 February 2011
- [16] International Conference on Communications and Signal Processing (MIC-CSP2011), Communication Systems and Applications (CSA) track, Dubai, UAE, 2-4 April 2011.
  - [17] Jordanian International Electrical and Electronics Engineering Conference (JIEEEC2011), Amman, Jordan, 11-14 April 2011
- [18] International Conference on Wireless Communications and Mobile Computing (MIC-WCMC2011), Wireless Communication Systems (WCS) track, Amman, Jordan, 3-5 June 2011

- [19] International Conference on Communications, Signals and Coding (MIC-CSC2011), Spread Spectrum Communications (SSC) track, Larnaca, Cyprus, 7-9 October 2011.
  - [20] International Conference on Communications, Signals and Coding (MIC-CSC2011), Information Theory and Coding (ITC) track, Larnaca, Cyprus, 7-9 October 2011.
  - [21] International Conference on Communications and Electronic Systems (MIC-CES2011), Satellite Communication Systems (SCS) track, Amman, Jordan, 4-6 November 2011
  - [22]4th IEEE International Conference on Computer Science and Information Technology (IEEE ICCSIT 2011), Chengdu, China, 10-12 June, 2011.
- [23] International Conference on Information Technology and Communication ICICT?2011
- [24] International Conference on Communications, Propagation, and Electronics (MIC-CPE2012), Optical Fiber Communications (OFC) track, Amman, Jordan, 3-5 February 2012.
- [25] International Conference on Biomedical Engineering, Electronics and Nanotechnology (MIC-BEN2011), Electronic Circuits and Systems (ECS) track, Amman, Jordan, 9-11 September 2011.
- [26] International Conference on Communications, Signals and Coding (MIC-CSC2011), Signal, Image and Speech Processing (SISP) track, Larnaca, Cyprus, 7-9 October 2011.
- [27] International Conference on Engineering and Built Environment (ICEBE 2012), 6-7 November 2012, Kuala Lumpur, Malaysia

### Awards:

- [1] Best Paper for the 7th WSEAS International Conference on DATA NETWORKS, COMMUNICATIONS, COMPUTERS (DNCOCO '08). Bucharest, Romania, November 7-9, 2008: Parameters Effect on Block Transmission Communication Systems, pp.13-17
- [2] Universiti Sains Malaysia (USM) research fellowship, Sept 2007-Jan 2009
- [3] Palestinian American Research Center (PARC) fellowship, 2013

# **Courses Taught**

- 1. Electric Circuits 1
- 2. Electric Circuits 2
- 3. Electromagnetic Theory 1
- 4. Electromagnetic Theory 2
- 5. Fiber Optic Communications
- 6. Analog Communications
- 7. Digital Communications
- 8. Electric Installations

- 9. Microwave Systems
- 10. Digital Signal Processing
- 11. Signals and Systems
- 12. Information theory and Coding
- 13. Probability and Random Variables
- 14. Mobile Communications
- 15. Communication Networks
- 16. Wireless Communications
- 17. Digital Logic Design Lab.
- 18. Basic Electronics Lab.
- 19. Electric Circuits Lab.
- 20. Analog Communications Lab.
- 21. Microwave Lab.
- 22. Graduation Projects

### Languages

**Arabic:** Native speaker

**English:** Excellent reading, writing and conversation

# **Computer skills**

Ability to design in some advance engineering software such as: Matlab, Simulink, Pspice, LabView, ...etc

# **Memberships**

- Institute of Electrical and Electronics Engineers (IEEE)
- Palestinian Engineers Association
- Arab Engineers Association
- Higher Council for Engineers Qualifying and Accrediting
- Scientific Committee for Palestinian Engineers.