

CURRICULUM VITAE

Full Name: Dr. Abdulkareem Abdulrahman Kadhim

Designation: Professor

Date of Birth: 15/12/1958

Permanent Address:

House No. 3/2 - Street 9 - Quarter 608 - Al-Maamoon - Baghdad - Iraq



Work Address:

College of Information Engineering/ University of Al-Nahrain/ Baghdad /Iraq
www.coie.nahrainuniv.edu.iq

Mobile No.: +9647901421022

E-mails : abdulkareem.a@coie-nahrain.edu.iq
ak_kadhim@yahoo.com

Scopus Author ID: 25925043200

ORCID ID: 0000-0001-8680-2140

Academic Qualifications

1- Ph.D. in Digital Communication systems (1989).

Electrical and Electronic Eng. Dept., Loughborough University of Technology (U.K).
Thesis Title "*Detection of Coded & Distorted QAM Signals*"

2- M.Sc. in Digital Communication systems (1985).

Electrical and Electronic Eng. Dept., Loughborough University of Technology (U.K).
Thesis Title "*Detection Processes For 9600 Bit/s Modem*".

3- B.Sc. in Electrical & Electronic Engineering (1981).

From Electrical Eng. Dept., University of Technology (Previously MEC), (Iraq).

Experience

1-Since February 2019

Professor, Computer Networks Eng. Department, College of Information Engineering, Al-Nahrain University, Baghdad, Iraq

2- From June 2016 till February 2019

Head of Computer Engineering Department, College of Engineering, Al-Nahrain University, Baghdad, Iraq.

3-From September 2014 till May 2016

Head of Networks Engineering Department, College of Information Engineering, Al-Nahrain University, Baghdad, Iraq

4-From September 2013 till September 2014

Head of Information & Communication Eng. Department, College of Information Engineering, Nahrain University, Baghdad, Iraq

5-From October 2012 till September 2013

Lecturer, Information & Communication Eng. Department, College of Information Engineering, Al-Nahrain University, Baghdad, Iraq

6- From September 2009 till October 2012

Head of Networks Eng. Department, College of Information Engineering, Al-Nahrain University, Baghdad, Iraq

7- From September 2008 till September 2009

Associate Professor at Electrical Engineering Department, Nizwa College of Technology, Nizwa, Oman

8- From September 2007 till September 2008

Associate Professor at Electrical Engineering Department, Amman Private University, Amman, Jordan.

9- From September 2006 till September 2007

Associate Professor at Electrical Engineering Department, Al-Isra Private University, Amman, Jordan.

10- From July 2004 till September 2006

Deputy Dean (Academic), College of Information Engineering, Nahrain University, Baghdad, Iraq.

11- From July 2003 till July 2004

Head of Computer and Information Engineering Department at Al-Rasheed College for Engineering & Science, University of Technology, Baghdad, Iraq.

12- From October 2000 till July 2003

Head of Computer Engineering Section, Al-Rasheed College for Engineering & Science, University of Technology, Baghdad, Iraq.

13- From April-1989 till October 2000

Lecturer then Assistant Professor at Al-Rasheed College for Engineering & Science, faculty of Electrical and Electronic Engineering, Baghdad, Iraq.

14- From September 1984 till April 1989

Scholarship for postgraduate study (M.Sc. & Ph.D.), Loughborough University of Technology, U.K.

15- From June-1981 till August-1984

Demonstrator at Communication Laboratory at MEC (now Al-Rasheed College, University of Technology) for undergraduate students and responsible for covering tutorial lectures for the following subjects; Eng. Statistics, Information & Coding Theory, and Communication Systems.

Organizations

Member of the following organizations;

- 1- Senior Member IEEE (No. 85025380), ComSoc.
- 2- Member of ACM (No. 2122933)
- 3- Iraqi Engineering Union
- 4- Iraqi Engineering Committee
- 5- Iraqi Telecommunication Research Center.

Projects, Consultations & Other Activities

- 1- Chairman of the Board of Engineering Consulting Bureau (College of Engineering, Al-Nahrain University) (2016-2018).
- 2- Director of Engineering Consulting Bureau (College of Information Engineering, Al-Nahrain University) (2012-2014).
- 3- Organizer & Editor of ICFCN'12 IEEE conference;
<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6203246>
- 4- Member of the following two DELPHI – Iraq projects supported by British council
 - a- Development of Iraqi Higher Education Institutes
 - b- Virtual Iraqi Telecommunication Research Center (VICTER).
- 5- Coordinator for Iraqi Telecommunication Research Center www.trc-iq.org
- 6- IT Management of Iraqi Libraries Network project: A Joint project with Bielefeld University, Germany to create web based digital library for Iraqi universities
<http://iraklib.uni-bielefeld.de/> 2005.
- 7- Member of the Organization committees for 4 International and 6 National scientific conferences.
- 8- Participated as delegate or presenter in 6 International and 14 National scientific conferences.
- 9- Member of editing board for:
 - a- The scientific journal “The Engineering Journal”, Al-Nahrain University, Iraq (2004-2006).
 - b- The scientific journal of Ministry of Industry (since 2014)
 - c- The scientific journal, "Iraqi Journal of Information & Communication Technology (IJICT)" (Since 2017).
- 10- Consultant for the following projects :
 - a- Health Geographical Information System (HGIS), Ministry of Health, Iraq, 2012
 - b- Cultural Child City, Ministry of Culture, Iraq, 2012-2013
 - c- Experimental satellite system / modulation and coding techniques/ 2002.
 - d- Adaptive bit rate HF modem project / /2001.
 - e- Iraqi Internet Company (SCIS) (Consultant)/ 2001.
- 11- Program Evaluator for Telecommunication Engineering Department “Mobile and Networks Engineering (BSMNE)”, College of Engineering, Ahlia University, Kingdom of Bahrain.

Publications/Journal's papers:

- 1-Zahra A. Hamodi and Abdulkareem A. Kadhim. "Performance of RPL Protocol based on New Objective Function for IoT-WSN", Iraqi Journal of Information and Communications Technology (IJICT), Vol. 3, Issue 2, March 2020.
- 2- Mais S. Ali and Abdulkareem A. Kadhim, "Coding Schemes for Energy Constrained IoT Devices", International Journal of Mobile Network Communications & Telematics (IJMNCT), Vol.9, No.2, April 2019.
- 3- Sara A. Rafea and Abdulkareem A. Kadhim, " Routing with Energy Threshold for WSN-IoT Based on RPL Protocol", Iraqi Journal of Computer Communication & Control Engineering (IJCCCE), Vol. 19, No.1, January 2019.
- 4- Abdulkareem A. Kadhim, "Flexible Wavelet-Based Image Hiding Approach", International Journal of Computing and Optimization, Vol.4, No.1, (193-205), Dec. 2017.
- 5-Ali D. Jalil & Abdulkareem A. Kadhim, "An Overview of Software Defined Environment", Qalaa Zanist Journal (Special Issue of the 1st International Conference on Information Technology (ICoIT'17)), Lebanese French University, Vol. (2), No. (2), April 2017.
- 6-Nagham A. Mansour and Abdulkareem A. Kadhim, "Improved DFT – Based Channel Estimation Techniques for OFDM Signal", International Journal of Engineering Research, Volume No.5, Issue No.12, pp :922-926, India., December 2016
- 7- Shamam A. Chasib and Abdulkareem A. Kadhim, Software Defined Network for Data Center Using Open Flow Protocol", International Journal of Scientific Engineering and Technology, Volume No.5 Issue No.12, pp: 537-541, 1 December 2016
- 8- Ali K. Al-Janabi and Abdulkareem A. Kadhim, "Efficient Scalable Image Compression Algorithms with Low Memory and Complexity", International Journal of Computer Applications 136(9):12-19, Published by Foundation of Computer Science (FCS), NY, USA. February 2016.
- 9- A-K. Kadhim and M. Abboud, "Joint Forward Error Correction and Network Coding for Wireless Sensor Networks", International Journal of Innovations in Engineering and Technology (IJJET), Volume 6 Issue 2 December 2015
- 10- A-K.Kadhim, A. Al-Joudi, & H. Al-Raweshidy, "Error Correction Schemes for Wireless Sensor Networks", Journal of Telecommunications, Vol. 29, Issue 2, February 2015.
- 11- A-K.Kadhim & M. W. Abdulrazzaq, "Efficient Routing Techniques for Wireless Sensor Networks", Journal of Applied Science, 14(24), 2014.
- 12-Z. A. Abduljabbar & A-k. A-R. Kadhim, "Performance of Combined Fountain Code with Network Coding over Wireless Channel", International Journal of Computer Engineering & Technology (IJCET), Vol-5, Issue-3, March 2014.
- 13-M. D. Al-Hassani, & A-K. A-R.Kadhim , "Design of A Text-Prompt Speaker Recognition System Using LPC-Derived Features", International Journal of Information Technology & Management of Information System (IJITMIS), Vol-4, Issue-3, Sept.-Dec. 2013.
- 14-M. D. Al-Hassani, & A-K. A-R.Kadhim, "Fingerprint Identification Technique Based on Wavelet-Bands Selection Features (WBSF)", International Journal of Computer Engineering and Technology (IJCET), Volume 4, Issue 3, June 2013.
- 15-A-K.Kadhim& Abdul-Aziz A. Hussain, " Hierarchical Matched Filter Based on FPGA for Mobile Systems",Computers & Electrical Engineering Journal, Elsevier Publishing, Vol. 35, Issu 4 , July 2009, UK
- 16- S.T. Faraj , M. A. Tawfik& A-K. Kadhim, "Key Exchange Protocol supporting Mobility and Multihoming",i-manager's Journal on Software Engineering, Vol-1, No-2, October 2006 (India).
- 17- A-K. A-R.Kadhim , "Discrete Wavelet Multitone Transmission for Digital Subscriber Line" , Engineering &Development Journal, Vol. 9, No. 3, September 2005 (Iraq).
- 18- A. M. Nadhim, A-K.A-R.Kadhim, "Complex Wavelet Packets-based DWMT for Digital subscriber Line",Asian Journal of Information Technology, Volume 3, Number 3, 2004. (Pakistan)
- 19- A-K. A-R.Kadhim& B. M. Saeed, " Performance of Branched Hopped-Wavelet Packet Division MultiplexingSystem in the Presence of Jamming", College of Eng. Journal, Vol. 6, No. 3, Part-III, Dec. 2002. (Iraq)
- 20- A-K. A-R.Kadhim, S. A-R. Mohammed-Ali & F. T. Mekkiya, "Digital communication schemes using waveletTransform", Journal of Engineering, Vol. 7, No. 3, Sept. 2001. (Iraq)
- 21- A-K. A-R.Kadhim& Ahmed A-K Hammed, "Performance of Four Dimensional Trellis Coded QAM Signal ",Journal of Eng. & Technology, Vol. 19, No.5, 2000. (Iraq).
- 22- A-K. A-R.Kadhim, "Interleaving Of Coded And Distorted Digital Signal" , MEC Journal, Vol.7, No.2, Baghdad, 1997. (Iraq).

23- A. P. Clark & A-K. A-R. Kadhim, "Detection Of Coded And Distorted QAM Signals" , Journal of IERE, Vol. 58, No. 4, Aug. 1988. (U.K)

Publications /National & International Conferences Papers:

- 1- W. Abdulwahab, and A. Kadhim, "Comparative Study of Channel Coding Schemes for 5G," in 2018 International Conference on Advanced Science and Engineering (ICOASE), Iraq, Oct. 2018
- 2-Ali D. Jalil & Abdulkareem A. Kadhim, "An Overview of Software Defined Environment", The 1st International Conference on Information Technology (ICoIT'17), Lebanese French University, 10th of April, 2017, Erbil, Iraq
- 3- A.K. Kadhim & Karar A. Ali, "Network Coded Modulation for Two Way Relay Networks ", National Conference on Information & Communication Technology, 11-12 Dec. 2013, Baghdad, Iraq
- 4- A.K. Kadhim, & Alza Alubaidy, "Throughput Improvement for Wireless Networks Using MIMO Network Coding", FNCES'12 conference, November 2012, Iraq
- 5-M. D. Al-Hassani, & A-K. A-R.Kadhim, "Design A Text-Prompt Speaker Recognition System Using LPC-Derived Features", 13th International Arab Conference on Information Technology (ACIT 2012), December 2012, Jordan.
- 6- A. I. Siddiq & A-K. Kadhim, " Design of Wavelet Filters for DWMT Systems", ICFCN'12 Conference, April, 2012, Iraq.
- 7- A-K. Kadhim & W. K. Abdulwahab, " Scalable Video Transmission Using OFDM Schemes over Wireless Channels ", ICFCN'12 Conference, April, 2012, Iraq.
- 8- A-K kadhim, T.A. Sarab, & H. Al-Rewasdy, "Improving Throughput Using Simple Network Coding", DESE2011 Conference, December 2011, Dubai, UAE.
- 9- S. R. Chaudhry, H. S. Al-Raweshidy, & A-K.Kadhim, "Transmitting UWB-OFDM using 16-QAM over Hybrid Flat Fading Channels", 73rd VTC IEEE conference, 15-18 May 2011, Hungary.
- 10-A. A. Hussain & A-K.Kadhim, "FPGA – Based Fast SSCH Detector for 3G WCDMA System Using Cyclic Hierarchical Codes", 5th IEEE GCC Conference, February 2011, Dubai, UAE.
- 11-A-K.Kadhim , "**Invited Paper** - A Survey of Best Teaching Practices in Colleges of Technology", Salalah Conference on Effective teaching practices in higher educational institutes, 19th May 2009, Salalah, Oman.
- 12- A-K. Kadhim, "A Survey of Best Teaching Practices in Colleges of Technology", 2nd Symposium on Best Teaching Practices, 8-9th April 2009, Nizwa College of Technology, Nizwa, Oman.
- 13- A-K. Kadhim & A. Hammed, "Turbo Codes with Internal Pilot Insertion", IEEE NGMAST'08, Page(s): 343 –347, 16-19 Sept. 2008, Cardiff, U.K.
- 14- A-K. Kadhim & A.S. Al-Jalal, "The Use of Spread Spectrum to Improve Information Hiding in Images", MICCCA-2008, 8-10 Aug. 2008, Amman, Jordan
- 15- A-K. Kadhim & Abdul-Aziz A. Hussain, "Hierarchical Matched Filter Based on FPGA for Mobile Systems", 4th IEEE GCC Conference, November 2007, Bahrain.
- 16- A. Mohammed, A-K. A-R. Kadhim and A. H. Ahmed, "Design and Implementation of Airborne Digital Data Transmitter using Data Acquisition System", 1st International Conference on Digital Communications & Computer Applications, DCCA2007, Jordan.
- 17- R. Y. Youail, A-K. A-R.Kadhim and V. W. Samawi, "Improved Stegosystem Using DFT with Combined Error Correction and Spread Spectrum", 2nd IEEE conference on Industrial Electronics & Applications, ICIEA 2007, Harbin, China.
- 18- A-K. Kadhim & Abdul-Aziz A. Hussain, "FPGA Based Hierarchical Matched Filter Design for New Generation Mobile Systems ", 18th International Conference on Microelectronics ICM2006, Dhahran, (KSA).
- 19- A. I. Siddiq & A-K. A-R.Kadhim, "The Design of Wavelet Filters for DWMT Systems" , 5th International Symposium CSNDSP'06, Patras, (Greece).
- 20- H.K. Chaiel & A-K.A-R.Kadhim, "FPGA Based Wavelet Branch Hopping System", 6th JIEEE Conference , March 2006, Amman, Jordan.
- 21- A-K. A-R. Kadhim & A. M. Hassan, " Design & Implementation of Digital Down Converter Using FPGA", International Remote Sensing Conference (ISPRS), 8-11 May 2005, (Riyadh, KSA).
- 22- A-K. A-R. Kadhim & Y. A-M.Taleb , " Phoneme-Based Speaker Identification using Dynamic Wavelet Tree Structure", Third International Conference on Systems, Signals & Devices (SSD-05) , March 2005, (Tunisia).

- 23- A. M. Nadhim, A-K.A-R.Kadhim, H. Jianhua and Z. Yang, " Complex WPM-based Multicarrier System for Digital Subscriber Line" , Proceeding of the 2nd International Conference on Information Technology For Application (ICITA 2004) , China 2004. (China).
- 24- M. D. Al-Hassani, A-K. A-R.Kadhim and V. W. Samawi, "Fingerprint Recognition Technique using Wavelet Transform", The third Annual International Arab Conference on Information Technology (ACIT), 2002. (Qatar)
- 25- A-K. A-R.Kadhim, A. A-J. Ati & S. M. Ismaiel, " FPGA Based Wavelet Filter Banks", Third National Conference on Computer, Communication and Control (NC CCCSE-3) , Baghdad, 2002. (Iraq)
- 26- A-K. A-R.Kadhim & M. M. Alani, " DES80- A DES Variant Cryptographic System" , The First Scientific Conf. of SCIS, Baghdad, Oct.2002. (Iraq)
- 27- I. A. Al-Meshhedani, F. M. Al-Naima & A-K. A-R.Kadhim, " Adaptive Filtering Based on Wavelet Packets", The Fourth Jordanian International Electrical & Electronic Eng. Conference , Amman, April 2001. (Jordan)
- 28- A-K. A-R.Kadhim, " Approaching The Theoretical Limit Of Transmission Rate Over The Local Loop", The First Scientific Conf. of Ministry of Communication & Transport , Baghdad , April 2001. (Iraq).
- 29- A-K. A-R.Kadhim, A. A. Sadik, & O. M. Daffa-Alla, "Simple Technique To Reject Jamming and Interference for DS –CDMA System", The Third MCE Conference, Baghdad, 2000. (Iraq)
- 30- B. Z. Al-Jewad , A-K. A-R.Kadhim & F. M. Al-Naima, " Development And Implementation Of Analog Chirp Frequency Sampling System For Speech Compression Application ", The Third MCE Conference, Baghdad, 2000. (Iraq)
- 31- B. Z. Al-Jewad , A-K. A-R.Kadhim & F. M. Al-Naima, "A New Approach To Speech Spectrum Compression ", Proc. Of 3rd Jordanian Conf. on Elect.Eng., Mutah Univ., 1999. (Jordan).
- 32- S. Y. Ameen & A-K. A-R.Kadhim, "Adaptive Detectors For 19200 Bit/S Modem", The Second MECC Conference, Baghdad, 1994. (Iraq)
- 33- A-K. A-R.Kadhim & S. Y. Ameen, "Multiplexing And Transmission Of Low – Rate Digital Data Through Water" , The Eleventh Iraqi Engineering Conference, Baghdad, 1993. (Iraq).

Supervision/ Ph.D. Dissertations

- 1- Computer Aided Design and Construction of Wavelet Filters
- 2- Design and Implementation of Branch Hopped Wavelet Packet System
- 3- Adaptive Transmission over HF Radio Link
- 4- Design of Wavelet Filters for Multitone Transmission
- 5- Identification Techniques using Speech Signals & Fingerprints
- 6- Transmission of Multicarrier Signals for Video Applications
- 7- Design and Implementation of Key Exchange Protocol Supporting Mobility and Multihoming
- 8- FPGA Based Digital Receiver for Spread Spectrum Signal
- 9- Improved Turbo Coded Signals Using Pilot Insertion for Single and Multicarrier Transmission
- 10- Efficient Error Control Schemes for 5G System
- 11- Improving Millimeter-Wave Based New Network Generation Using Network Coding and MMIMO
- 12- Electro-Larynx Speech Enhancement Application
- 13- FPGA Implementation of Bandwidth Efficient OFDM for Green Communication Systems

Supervision / M.Sc. These

- 1- Noise adaptive Detectors For Multi- Dimensional Trellis Coded PSK Signals
- 2- Multi- Dimensional Trellis Coded Modulation For High Speed Modems
- 3- Adaptive Detection Process For Multi- Dimensional Trellis Coded And Distorted QAM Signals
- 4- Interference Rejection For DS/SS –CDMA system
- 5- Efficient Modulation Techniques For Digital Mobile Radio
- 6- Non-Linear Compensation Of PSK Signals For Satellite Modem
- 7- Design And Implementation Of a Band-Saving Analysis by Synthesis Scheme For Speech application
- 8- Adaptive Interference Rejection For DS /SS-CDMA
- 9- Transmission Of Coded Signal Over HF Radio Channel
- 10- Advanced Coding Techniques for Severely Distorted Channel
- 11- Multiple Access Communication System Based On Wavelet Representation
- 12- Spread Spectrum Hopping Technique Based on Wavelet Filters

- 13- Multiple Carrier Modulation in High Interference Environment
- 14- Design And Implementation of High Speed Frequency Synthesizer
- 15- Accurate Frequency Measurement Using DSP Techniques for EW Applications
- 16- Multi Carrier Modulation Using Wavelet Filter bank
- 17- Image Compression Using Wavelet Transform
- 18- Wavelet Transform –Based Finger Print Compression
- 19- Image Steganography Using Wavelet Transform Technique
- 20- Evaluation of Hybrid Data Compression Technique
- 21- Practical Implementation of Frequency Hopping Synchronization System
- 22- Design and Implementation of A Secure Data Terminal Equipment
- 23- Design and Implementation of A Frequency Hopping Communication System
- 24- Advanced Compression Techniques For Multimedia Applications
- 25- Design and Implementation of a Variable-Speed Data Modem
- 26- Design & Software Implementation of FPGA Based Wavelet Filter Bank
- 27- Design & Implementation of Improved Text in Image Steganography Via Error Correction Code
- 28- Design and Implementation of Airborne Data Acquisition System For Ground Monitoring
- 29- Hybrid CIPHERING & Information Hiding Techniques
- 30- Direction Finding Using Iterative-ESPRIT Algorithm
- 31- Neuro-Genetic Cryptanalysis Approach for Block Ciphers
- 32- Design of Phase Code Signal With Some Useful Properties To Improve Radar Detection
- 33- Statistical & Wavelet Approaches For Speaker Identification
- 34- Transmission of Coded Signal Over Meteor Burst Channel
- 35- Design and Implementation of Adjustable Speed Modem For HF/VHF Transmission
- 36- Design & Implementation of FPGA Based Numerical Controlled Oscillator
- 37- High Capacity Image In Image Steganography Using Wavelet Transform
- 38- Design & Implementation of A Universal Serial Bus Based Applications
- 39- Implementation of FPGA Based Spectral Estimation System
- 40- Web-Based Implementation of Digital Library for Iraqi Universities
- 41- The Use of Network Coding to Improve Throughput.
- 42- The Transmissions Of Scalable Video Stream Using Wavelet Packet Division Multiplexing
- 43- Combined MIMO and Network Coding for Wireless Networks
- 44- Improving Video Quality over Mobile Ad-Hoc Networks.
- 45- Network Coded Modulation for Two Way Relay Networks
- 46- Prototype Based Grid Computing With Applications
- 47- DFT-Based Channel Estimation with Adaptive Pilot Insertion for OFDM Signal over Fading Channel.
- 48- Coding Schemes for Wireless Sensor Networks
- 49- Joint Forward Error Correction and Network Coding for Wireless Sensor Networks.
- 50- Software Defined Network Based OpenFlow Protocol
- 51- Performance Evaluation of Software Defined Networks.
- 52- Throughput Improvement for Wireless Networks Using MIMO Network Coding
- 53- Performance of Fountain Codes Based Network Coding
- 54- Performance evaluation of Software Defined Environment Based Networks
- 55- Coding Scheme for Energy Constrained IoT Devices
- 56- An Efficient Routing Protocol in WSN-Assisted IoT
- 57- Performance Improvement of RPL Protocol for IoT Networks.
- 58- MIMO Coded Signal based on Millimeter Wave Transmission for 5G System
- 59- Management of Smart City based on Internet of Things
- 60- Network Coding Approaches for 5G Indoor Environments.