

# CURRICULUM VITAE

## **Personal Information:**

**Full Name:** Hamza Mohammed Ridha Yahya Al-Khafaji

**Birth Date:** February 22, 1982

**Place of Birth:** Baghdad, Iraq

**Gender:** Male

**Marital Status:** Married (one child)

**Nationality:** Iraqi

**Mobile:** 00964-7728158480

**E-mail:** [hamza.alkhafaji@mustaqbal-college.edu.iq](mailto:hamza.alkhafaji@mustaqbal-college.edu.iq)

**Languages:** Fluent in English and Arabic.



## **Educational Summary:**

- **January 2011 – May 2014:**

Ph.D. in Communications Engineering

School of Computer and Communication Engineering,

University Malaysia Perlis, Perlis, Malaysia.

Thesis Title: Novel Detection Techniques for SAC-OCDMA Systems

Supervisor: Prof. Dr. Syed Alwee Aljunid Bin Syed Junid

- **September 2004 – December 2007:**

M.Sc. in Modern Communications Engineering

Electronic and Communications Engineering Department,

Nahrain University, Baghdad, Iraq.

Courses: Digital Communications, Optical Communications, Digital Image Processing, Microwave Engineering, Digital Signal Processing, Reliability Theory, Signal Sampling and Reconstruction, Optimum Filtering and Prediction, Technical English (for academic writing).

Thesis Title: Performance Evaluation of Frequency Coded Optical CDMA

Supervisor: Prof. Dr. Raad Sami Fyath

- **September 2001 – September 2004:**

B.Sc. in Electronic and Communications Engineering (Hons)

Electronic and Communications Engineering Department,

Nahrain University, Baghdad, Iraq.

## **Professional Experience:**

- **September 2015 – Until now**

*Al-Mustaqbal University College, Babylon, Iraq*

*A- Biomedical Engineering Department*

**Title: Deputy Head of Department**

*B- Computer Techniques Engineering Department*

**Title: Lecturer & Head of Computer Communication Networks Branch**

Responsibilities:

- 1- Teaching: digital communications, optical communications, electronics, electrical circuits, computer programming.
- 2- Conducting and processing examinations.
- 3- Member, department scientific committee.
- 4- Arranging and participating in scientific seminars within the department.
- 5- Supporting management tasks within the department and college.
- 6- Conducting research and publish papers.
- 7- Supervising final year students in their projects.

- **April 2014 – March 2015**

**Title: Post-Doctoral Researcher**

*HICoE Wireless Communication Centre, Faculty of Electrical Engineering, Universiti Teknologi Malaysia, Johor Bahru, Malaysia*

Project Title: A Novel, Spectrally Efficient, Highly Secure, and Cost Effective Transceiver Design for 10 Gbps Incoherent OCDMA Systems

Responsibilities:

- 1- Conduct a research related to the proposed project and publish papers.
- 2- Support 2 Ph.D. and 1 M.Sc. students in their research to publish papers.

Stella Ifeoma Orakwue (Ph.D. Student)

Bushra Naeem (Ph.D. Student)

Nor Adibah Ibrahim (M.Sc. Student)

- **September 2011 – November 2013**

**Title: Graduate Assistance (GA)**

*School of Computer and Communication Engineering, University Malaysia Perlis, Perlis, Malaysia*

Responsibilities:

- 1- Supervise optoelectronics communications laboratory sessions for undergraduate students.
- 2- Assist final year students in their projects.
- 3- Support M.Sc. students who work on the same area of my Ph.D. research.

- **September 2008 – October 2010**

Title: **Senior BSS Engineer**

*Omnea for Wireless Telecommunications Company, Baghdad, Iraq*

Projects and Responsibilities:

- 1- Technical supervision for the hardware and software installation of large capacity CDMA-BSC6600 and 17 CDMA-BTS3606C sites in Baghdad.
- 2- Technical supervision for the installation of expansion project to the existing large capacity CDMA-BSC6600 in Hilla.
- 3- Follow all maintenance and troubleshooting issues with other team members and update them tasks and support them.
- 4- Collect suitable candidates and make interview with them and select the best to involve him with BSS team according to company requirements.
- 5- Update all the reports related to network owner monitoring every week and finish BSS system performance analysis KPI report and send it to Huawei side.
- 6- Communicate and discuss with power, TR, RF, deployment, NSS and IN regards pending issues.
- 7- Escalate and follow up BSS technical tickets with Huawei TAC.
- 8- Perform system backup for all BSC's and sites weekly.
- 9- Support OMC engineers regarding their questions and operations.

- **February 2006 – July 2008**

Title: **CDMA-BSS and PS Engineer**

*Huawei Technologies Company (Chinese provider of telecommunication equipments), Sulaymaniah, Iraq*

Projects and Responsibilities:

- 1- One year of maintenance for the CDMA-WLL system in Sulaymaniah for Midya Telecomm Company.
- 2- One month of maintenance for the CDMA-WLL system in Baghdad for Iraqi Telecommunications and Post Company (ITPC).
- 3- Two months of maintenance for the CDMA-WLL system in Erbil for Ariafon Company.
- 4- Installing 15 CDMA-BTS3606 EVDO sites for the CDMA-WLL network in Erbil for Ariafon Company.

- 5- Installing and commissioning of small capacity CDMA-BSC6600 + PDSN 9660 in Basra for IraqTel Company.
- 6- Installing and commissioning of large capacity CDMA-BSC6600 and 13 CDMA-BTS3606 1X and EVDO sites in Basra for Itisaluna Company.
- 7- Technical supervision for the installation and commissioning of large capacity CDMA-BSC6600 + PDSN 9660.
- 8- Supervision for installing 33 CDMA-BTS3606C sites in Baghdad, Hilla, Najaf and Karbala for Omnea Wireless Telecommunications Company.
- 9- Give full details training for Huawei subcontractors and customers when required with excellent abilities of teaching and learning.

## **Publications:**

### **Impact Factor Journals:**

- 1- **Hamza M. R. Al-Khafaji**, Razali Ngah, S. A. Aljunid, and T. A. Rahman, “A new two-code keying scheme for SAC-OCDMA systems enabling bipolar encoding,” Journal of Modern Optics, vol. 62, no. 5, pp. 327-335, 2015, Publisher: Taylor & Francis, United Kingdom. **(Impact Factor: 1.166)**
- 2- Stella I. Orakwue, Razali Ngah, T.A. Rahman, Siti Z. Mohd Hashim, and **Hamza M.R. Al-Khafaji**, “Implementation of switched beam smart antenna using artificial neural network,” Wireless Personal Communications, vol. 83, no. 1, pp. 87-98, 2015, Publisher: Springer, Netherlands. **(Impact Factor: 0.979)**
- 3- **H. M. R. Al-Khafaji**, S. A. Aljunid, A. Amphawan, H. A. Fadhil, and A. M. Safar, “Reducing BER of spectral-amplitude coding optical code-division multiple-access systems by single photodiode detection technique,” Journal of the European Optical Society, vol. 8, 13022, 2013, Publisher: European Optical Society, Germany. **(Impact Factor: 1.152)**
- 4- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan, and Hilal A. Fadhil, “SOA/SPD-based incoherent SAC-OCDMA system at  $9 \times 5$  Gbps,” IEICE Electronics Express, vol. 10, no. 5, 20130044, 2013, Publisher: Institute of Electronics, Information and Communication Engineers (IEICE), Japan. **(Impact Factor: 0.391)**
- 5- Hilal A. Fadhil, Angela Amphawan, Hasrul A. B. Shamsuddin, Thanaa Hussein Abd, **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Nasim Ahmed, “Optimization of free space optics parameters: An optimum solution for bad weather conditions,” Optik - International Journal for Light and Electron Optics, vol. 124, no. 19, pp. 3969–3973, 2013. Publisher: Elsevier GmbH, Urban & Fischer Verlag, Germany. **(Impact Factor: 0.769)**

- 6- **H. M. R. Al-Khafaji**, S. A. Aljunid, and H. A. Fadhil, "Spectral efficiency analysis of bipolar spectral-amplitude coding optical code-division multiple-access systems using different one-dimensional codes," *IET Optoelectronics Journal*, vol. 6, no. 5, pp. 215–222, 2012, Publisher: The Institution of Engineering and Technology, United Kingdom. **(Impact Factor: 0.966)**
- 7- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, "Improved BER based on intensity noise alleviation using developed detection technique for incoherent SAC-OCDMA systems," *Journal of Modern Optics*, vol. 59, no. 10, pp. 878–886, 2012, Publisher: Taylor & Francis, United Kingdom. **(Impact Factor: 1.166)**
- 8- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan, and Hilal A. Fadhil, "Improving spectral efficiency of SAC-OCDMA systems by SPD scheme," *IEICE Electronics Express*, vol. 9, no. 24, pp. 1829–1834, 2012, Publisher: Institute of Electronics, Information and Communication Engineers (IEICE), Japan. **(Impact Factor: 0.391)**
- 9- Hilal A. Fadhil, S. A. Aljunid, Hassan Y. Ahmad, and **Hamza M. R. Al-Khafaji**, "Variable cross-correlation code construction for spectral amplitude coding optical CDMA networks," *Optik - International Journal for Light and Electron Optics*, vol. 123, no. 11, pp. 956–963, 2012. Publisher: Elsevier GmbH, Urban & Fischer Verlag, Germany. **(Impact Factor: 0.769)**

### **Indexed Journals:**

- 10- **Hamza M. R. Al-Khafaji**, Razali Ngah, Alaa J. Mousa, S. A. Aljunid, "Spectrally efficient SAC-OCDMA system using a new two-code keying scheme," *International Journal of Information and Communication Sciences*, vol. 1, no. 2, pp. 30-34, 2016.
- 11- IS Amiri, and **Hamza M. R. Al-Khafaji**, "Panda microring resonator (PMRR) to generate 90 GHz free spectral range (FSR) solitonic signals used for telecommunication applications." *International Journal of Information and Communication Sciences*, vol. 1, no. 1, pp. 1-8, 2016.
- 12- I. S. Amiri, and **Hamza M. R. Al-Khafaji**, "Widely wavelength-tunable solitonic pulse generation using InGaAsP/InP microring resonators," *International Journal of Information and Communication Sciences*, vol. 1, no. 1, pp. 9-15, 2016.
- 13- Nor Adibah Ibrahim, Razali Ngah, and **Hamza M. R. Al-Khafaji**, "ICI alleviation in OFDM system utilizing scale alpha pulse shaping," *Research Journal of Applied Sciences, Engineering and Technology*, vol. 10, no. 1, pp. 45-48, 2015.

- 14- Stella Ifeoma Orakwue, Razali Ngah, T.A. Rahman, and **Hamza M. R. Al-Khafaji**, “A  $4 \times 4$  Butler matrix for 28 GHz switched multi-beam antenna,” *International Journal of Engineering and Technology (IJET)*, vol. 7, no. 2, pp. 436-442, 2015.
- 15- IS Amiri, H. Ahmad, and **Hamza M. R. Al-Khafaji**, “Full width at half maximum (FWHM) analysis of solitonic pulse applicable in optical network communication,” *American Journal of Networks and Communications*, vol. 4, no. 2-1, pp. 1–5, 2015.
- 16- IS Amiri, H. Ahmad, and **Hamza M. R. Al-Khafaji**, “A review of ultra-short soliton pulse generation using InGaAsP/InP microring resonator (MRR) systems,” *American Journal of Networks and Communications*, vol. 4, no. 2-1, pp. 6–17, 2015.
- 17- Nor Adibah Ibrahim, Razali Ngah, and **Hamza M. R. Al-Khafaji**, “Inter-carrier interference mitigation in OFDM system using a new pulse shaping approach,” *International Journal of Engineering and Technology (IJET)*, vol. 6, no. 6, pp. 2738-2746, 2014.
- 18- Sarah G. Abdulqader, Syed A. Aljunid, **Hamza M. R. Al-Khafaji**, and Hilal A. Fadhil, “Enhanced performance of SAC-OCDMA system based on SPD detection utilizing EDFA for access networks,” *Journal of Communications*, vol. 9, no. 2, pp. 99–106, 2014.
- 19- M. Z. Norazimah, S. A. Aljunid, **Hamza M. R. Al-Khafaji**, Hilal A. Fadhil, and M. S. Anuar, “Channel spacing effect on SAC-OCDMA system based Modified-AND subtraction detection scheme,” *Key Engineering Materials*, vol. 594, pp. 1059–1065, 2014.
- 20- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan, Hilal A. Fadhil, and Anuar M. Safar, “Phase-induced intensity noise reduction with improved group velocity dispersion tolerance in SAC-OCDMA systems,” *International Journal of Engineering and Technology (IJET)*, vol. 5, no. 1, pp. 95–100, 2013.
- 21- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan, Hilal A. Fadhil, and Anuar M. Safar, “APD gain effect on SAC-OCDMA system using Modified-AND detection technique,” *Journal of Theoretical and Applied Information Technology*, vol. 53, no. 3, pp. 467–471, 2013.
- 22- Hilal A. Fadhil, Feras N. Hasoon, S. A. Aljunid, Hassan Y. Ahmad, and **Hamza M. R. Al-Khafaji**, “Performance of optical OFDM systems using new PAPR reduction approach,” *Australian Journal of Basic and Applied Sciences*, vol. 6, no. 3, pp. 120–127, 2012.

23- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Modified-AND subtraction detection technique based on weight-division for SAC-OCDMA systems,” *International Journal of Computer and Electrical Engineering*, vol. 4, no. 6, pp. 861–863, 2012.

### **Indexed International Conferences :**

24- **Hamza M. R. Al-Khafaji**, Razali Ngah, S. A. Aljunid, T. A. Rahman, and Marwah Y. Ahmed “A new approach for enabling bipolar encoding in high-rate SAC-OCDMA systems,” *IEEE 2015 International Conference on Communications, Signal Processing, and their Applications (ICCSPA15)*, Sharjah, United Arab Emirates (UAE), 17 – 19 Feb 2015.

25- **Hamza M. R. Al-Khafaji**, Razali Ngah, S. A. Aljunid, and T. A. Rahman, “A novel encoding and decoding structure for SAC-OCDMA systems enabling high-rate transmission,” *IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2014)*, Johor Bahru, Malaysia, 2014.

26- Stella Ifeoma Orakwue, Razali Ngah, T.A. Rahman, and **Hamza M. R. Al-Khafaji**, “A steerable 28 GHz array antenna using branch line coupler,” *IEEE 1st International Conference on Telematics and Future Generation Networks (TAFGEN2015)*, Kuala Lumpur, Malaysia, 26 – 28 May 2015. (Status: Accepted)

27- Nor Adibah Ibrahim, Razali Ngah, and **Hamza M. R. Al-Khafaji**, “Proposal of new pulse shaping method for side lobes reduction in OFDM system,” *International Conference on Science, Engineering and the Social Sciences (ICSESS 2015)*, Johor, Malaysia, 11 – 13 May 2015. (Status: Accepted)

28- Noriffah Abd Latif, Razali Ngah, **Hamza M. R. Al-Khafaji**, T. Prakoso, and N.S.M. Noor, “Development of central base station for radio over fiber system,” *IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2014)*, Johor Bahru, Malaysia, 2014.

29- **Hamza M. R. Al-Khafaji**, Razali Ngah, S. A. Aljunid, and T. A. Rahman, “An innovative encoding/decoding architecture based on two-code keying for SAC-OCDMA systems,” *IEEE 5<sup>th</sup> International Conference on Photonics (ICP2014)*, Kuala Lumpur, Malaysia, 2014.

30- M. Z. Norazimah, S. A. Aljunid, **Hamza M. R. Al-Khafaji**, and M. S. Anuar, “ Investigating security of data retrieval for different detection techniques in SAC-OCDMA systems,” *IEEE 2<sup>nd</sup> International Conference on Electronic Design (ICED 2014)*, Penang, Malaysia, 2014.

31- M. Z. Norazimah, S. A. Aljunid, **Hamza M. R. Al-Khafaji**, and M. S. Anuar, “Impact of different transceiver design on the performance of SAC-OCDMA systems,” *IEEE 2<sup>nd</sup> International Conference on Electronic Design (ICED 2014)*, Penang, Malaysia, 2014.

- 32- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan, and Hilal A. Fadhil, “Enhanced probability density function using APD in SAC-OCDMA systems based SPD technique,” IEEE Symposium on Industrial Electronics and Applications (ISIEA 2013), Kuching, Malaysia, 2013.
- 33- M. Z. Norazimah, S. A. Aljunid, **Hamza M. R. Al-Khafaji**, Hilal A. Fadhil, and M. S. Anuar, “Performance of different SAC-OCDMA detection schemes with NRZ and RZ data formats,” IEEE Symposium on Industrial Electronics and Applications (ISIEA 2013), Kuching, Malaysia, 2013.
- 34- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Single photodiode detection for interference elimination in SAC-OCDMA systems,” IEEE 4<sup>th</sup> International Conference on Photonics (ICP 2013), Melaka, Malaysia, pp. 41–43, 2013.
- 35- Sarah G. Abdulqader, S. A. Aljunid, **Hamza M. R. Al-Khafaji**, and Hilal A. Fadhil, “Investigation of transmission performance for SAC-OCDMA system under long haul transmission distance based on single photodiode detection technique,” IEEE 11<sup>th</sup> Malaysia International Conference on Communication (MICC 2013), Kuala Lumpur, Malaysia, 2013.
- 36- Hilal A. Fadhil, Thanaa H. Abd, **Hamza M. R. Al-Khafaji**, and S. A. Aljunid, “WDM and OCDMA Systems under MAI effects: a comparison analysis,” World Academy of Science, Engineering and Technology (WASET 2012), Venice, Italy, Vol. 64, pp. 110–113, 2012.
- 37- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Improved probability density function using Modified-AND detection technique for incoherent SAC-OCDMA systems,” IEEE 4<sup>th</sup> International Conference on Computer and Communication Engineering (ICCCE 2012), Kuala Lumpur, Malaysia, art. no. 6271234, pp. 531–534, 2012.
- 38- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, Angela Amphawan and Hilal A. Fadhil, “Triple-play services using different detection techniques for SAC-OCDMA systems,” IEEE 3<sup>rd</sup> International Conference on Photonics (ICP 2012), Penang, Malaysia, art. no. 6379819, pp. 350–354, 2012.
- 39- M. Z. Norazimah, **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Performance comparison of different detection techniques in long-haul fiber SAC-OCDMA systems,” IEEE 3<sup>rd</sup> International Conference on Photonics (ICP 2012), Penang, Malaysia, art. no. 6379820, pp. 199–203, 2012.
- 40- Hilal A. Fadhil, **Hamza M. R. Al-Khafaji**, Haider J. Abd, and S. A. Aljunid, “New priority-based parameter optimization technique for free space optics under bad weather conditions,” IEEE 3<sup>rd</sup>



- International Conference on Photonics (ICP 2012), Penang, Malaysia, art. no. 6379822, pp. 116–120, 2012.
- 41- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Spectral efficiency of unipolar SAC-OCDMA system considering noise effects,” IEEE Symposium on Industrial Electronics and Applications (ISIEA 2011), Langkawi, Malaysia, art. no. 6108702, pp. 218–222, 2011.
- 42- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Performance enhancement of SAC-OCDMA system using Modified-AND subtraction detection,” IEEE International Conference on Computer Applications and Industrial Electronics (ICCAIE 2011), Penang, Malaysia, art. no. 6162170, pp. 412–415, 2011.
- 43- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Spectral efficiency of incoherent spectral amplitude coding OCDMA system,” International Conference on Communication and Broadband Networking (ICCBN 2011), Kuala Lumpur, Malaysia.
- 44- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Spectral efficiency evaluation of various codes for SAC-OCDMA system using different detection techniques,” International Postgraduate Conference on Engineering IPCE2011, Perlis, Malaysia.
- 45- **Hamza M. R. Al-Khafaji**, S. A. Aljunid, and Hilal A. Fadhil, “Spectral efficiency comparison of SAC-OCDMA systems using unipolar and bipolar encoding techniques,” IEEE 2<sup>nd</sup> International Conference on Photonics (ICP 2011), Kota Kinabalu, Malaysia, art. no. 6106822, pp. 89–93, 2011.
- 46- Ibrahim Fadhil Radhi, S. A. Aljunid, Hilal A. Fadhil, and **Hamza M. R. Al-Khafaji**, “Performance evaluation of spectral amplitude coding signature sequences for OCDMA systems,” IEEE 2<sup>nd</sup> International Conference on Photonics (ICP 2011), Kota Kinabalu, Malaysia, art. no. 6106878, pp. 252–255, 2011.
- 47- C. B. M. Rashidi, S. A. Aljunid, F. Ghani, M. S. Anuar, **H. Al-Khafaji**, M. N. Junita, A. R. Arief, “New design of zero cross correlation codes for spectral amplitude coding in OCDMA systems,” IEEE 2<sup>nd</sup> International Conference on Photonics (ICP 2011), Kota Kinabalu, Malaysia, art. no. 6106833, pp. 137–141, 2011.

### **Citations:**

1- Google Scholar

Link:

[http://scholar.google.com/citations?hl=en&user=dX0CbP8AAAAJ&view\\_op=list\\_works&pagesize=100](http://scholar.google.com/citations?hl=en&user=dX0CbP8AAAAJ&view_op=list_works&pagesize=100)

Citations = 301, h Index = 10

2- Scopus Citation Database

Author ID: 56994326300

Citations = 178, h Index = 8

### **Awards:**

- 1- **Gold Medal + Best Product Award** “High capacity OCDMA system using novel flexible cross correlation (FCC) code,” Malaysia Technology Expo (MTE 2014), Malaysia.
- 2- **Silver Medal** “A novel SPD technique for OCDMA network applications,” PECIPTA 2013, Malaysia.
- 3- **Silver Medal** “A novel MDW-OCDMA system using Single Photodiode Detection (SPD) technique for industrial applications,” Seoul International Invention Fair (SIIF 2013), South Korea.
- 4- **Gold Medal + Best Product Award** “A novel Single Photodiode Detection (SPD) technique for optical code division multiple access network applications,” Malaysia Technology Expo (MTE 2013), Malaysia.
- 5- **Gold Medal + Special Award** “High capacity optical CDMA network system using novel Modified Double Weight (MDW) code,” IENA 2012, Germany.
- 6- **Silver Medal** “New optical CDMA system using Modified AND detection technique for next generation network,” Malaysia Technology Expo (MTE 2012), Malaysia.
- 7- **Gold Medal** “An innovative OCDMA detection technique for future access networks applications,” Ekspo Rekacipta & Pameran Penyelidikan Universiti Malaysia Perlis 2012, Malaysia.
- 8- **Gold Medal + Double Gold Award** “Optical CDMA system using Random Diagonal (RD) code,” The British Invention Show (BIS 2011), United Kingdom.
- 9- **Silver Medal** “Triple play services of OCDMA system using random diagonal code,” PECIPTA 2011, Malaysia.

### **Copyrights:**

- 1- **Hamza M. R. Al-Khafaji**, and Razali Ngah “A Novel Two-Code Keying Scheme for Enabling Bipolar Encoding in High-Rate SAC-OCDMA Systems,” United Kingdom Copyright Service (UKCS), Registration number: 284680743.
- 2- S. A. Aljunid, **Hamza M. R. Al-Khafaji**, and Hilal A. Fadhil “Single photodiode detection technique for high-speed optical code-division multiple-access systems,” United Kingdom Copyright Service (UKCS), Registration number: 284661011.
- 3- S. A. Aljunid, **Hamza M. R. Al-Khafaji**, and Hilal A. Fadhil “Modified-AND detection technique based on spectrum division for optical code division multiple access systems,” United Kingdom Copyright Service (UKCS), Registration number: 284652007.

## **Invited Talk:**

- 1- “Current Challenges and Requirements in the Design of Incoherent Optical CDMA Detection Techniques,” International Conference and Exhibition on Lasers, Optics, and Photonics (Optics-2013), San Antonio, Texas, USA, 2013.

## **Membership of Professional Organizations**

- 1- Member of the Iraqi Engineers Union (Registration No. 136224).
- 2- Member of the Institute of Electrical and Electronics Engineers (IEEE) (Registration No. 93042265).
- 3- Member of the Institute of Electronics, Information and Communication Engineers (IEICE) (Registration No. 1283367).
- 4- Member of International Association of Engineers (IAENG) (Registration No. 145382).
- 5- Senior Member of International Association of Computer Science & Information Technology (IACSIT) (Registration No. 80349568).

## **Editor-in-Chief**

- 1- International Journal of Information and Communication Sciences (IJICS)

## **Member of Editorial Board**

- 2- International Journal of Engineering and Industries (IJET).
- 3- American Journal of Networks and Communications (AJNC).
- 4- International Journal of Wireless Communications and Mobile Computing (WCMC).
- 5- Journal of Electrical and Electronic Engineering (JEEE).

## **Reviewer for Journals**

- 1- IEEE Communications Letters.
- 2- Journal of Optical Communications and Networking.
- 3- Journal of the European Optical Society.
- 4- Optical Fiber Technology.
- 5- Optical Engineering SPIE.
- 6- IEEE Transactions on Vehicular Technology.
- 7- Journal of Computers & Electrical Engineering<sup>1</sup>.
- 8- IETE Technical Review.

---

<sup>1</sup> Selected from top five reviewers for the year 2012.

- 9-Wireless Personal Communications.
- 10-IET Networks.
- 11-Photonic Network Communications.
- 12- Ain Shams Engineering Journal.
- 13- Recent Advances in Communications and Networking Technology.
- 14- American Journal of Networks and Communications (AJNC).
- 15- International Journal of Wireless Communications and Mobile Computing (WCMC).
- 16- Journal Tehnički Vjesnik – Technical Gazette (TV-TG).
- 17- Engineers Australia Technical Journals.

### **Reviewer for Conferences**

- 1- 2<sup>nd</sup> International Conference in Engineering Sciences (ICES 2018).
- 2- IEEE International Broadband and Photonics Conference (IBP 2015).
- 3- IEEE International Conference on Computer, Communication, and Control Technology (I4CT'2015).
- 4- IEEE 2<sup>nd</sup> International Symposium on Telecommunication Technologies (ISTT2014).
- 5- IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2014).
- 6- IEEE 5<sup>th</sup> International Conference on Photonics (ICP2014).
- 7- IEEE 2<sup>nd</sup> International Conference on Electronic Design (ICED 2014).
- 8- IEEE 4<sup>th</sup> International Conference on Photonics (ICP 2013).
- 9- IEEE Business Engineering and Industrial Applications Colloquium (BEIAC 2013).
- 10- IEEE Symposium on Computers & Informatics (ISCI 2013).
- 11- IEEE Student Conference on Research and Development (SCOReD 2012).
- 12- IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2012).
- 13- IEEE Symposium on Industrial Electronics & Applications (ISIEA 2012).
- 14- IEEE Symposium on Computers & Informatics (ISCI 2012).
- 15- IEEE 4<sup>th</sup> International Conference on Computer and Communication Engineering (ICCCE 2012).
- 16- IEEE 3<sup>rd</sup> International Conference on Photonics (ICP 2012).
- 17- IEEE Symposium Industrial Electronics and Applications (ISIEA 2011).
- 18- IEEE International Conference on Computer Applications and Industrial Electronics (ICCAIE 2011).
- 19- IEEE Student Conference on Research and Development (SCOReD 2011).

### **Session Chair in Conferences**

- 1- Chaired C2 session (Photonics, Terahertz & Advanced Materials) in IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2014), Johor Bahru, Malaysia, 2014.

2- Chaired A1 session (Automation, Instrumentation & Measurement Applications) in IEEE Symposium on Industrial Electronics and Applications (ISIEA 2013), Kuching, Malaysia, 2013.

### **Training Course/Seminar/Workshop Participation:**

- 1- Methods of Teaching (Certified), Continuing Education Center and Staff Development, University of Babylon, Babylon, Iraq, 2015.
- 2- MM-Wave Antenna Design and Technologies tutorial (Certified), IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE2014), Johor Bahru, Malaysia, 2014.
- 3- 4G Long Term Evolution (LTE) Technology short course (Certified), Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia, 2014.
- 4- Experimental trainings about OSA and FSO, ACE-CoE Universiti Malaysia Perlis, Perlis, Malaysia, 2013.
- 5- Optical Communication Technology training (Certified), IMEN UKM, Kuala Lumpur, Malaysia, 2012.
- 6- Advance Design System (ADS) training (Certified), SCCE Universiti Malaysia Perlis, Perlis, Malaysia, 2011.
- 7- Thesis and Technical Writing workshop (Certified), CGS Universiti Malaysia Perlis, Perlis, Malaysia, 2011.
- 8- Hardware structure and software commissioning for cBSC6680 (new product), online training, Huawei Technologies Company HQ, China, 2008.
- 9- CDMA-RNP principles training, Huawei Technologies Company Training Center, Iraq, 2007.
- 10- CDMA-BTS3606 training (Certified), Huawei Technologies Company Training Center, Cairo, Egypt, 2006.
- 11- CDMA-BSC6600 training (Certified), Huawei Technologies Company Training Center, Cairo, Egypt, 2006.

### **Computer Skills:**

- 1- Global IC<sup>3</sup>: Internet and Computing Core Certification (Certified), Certiport. I have passed computing fundamentals, key applications, and living online examinations with 85.17% average mark.
- 2- Programming languages: MATLAB, Visual Basic.
- 3- Computer Maintenance: Hard disk (partition and formatting), Installing operating systems, programs and applications.

## **Research Interests:**

- Optical-based Multiple-Access Techniques, Passive Optical Networks, Radio over Fiber, Multiuser Detection, Dispersion Compensation Techniques, Advanced Modulation Formats, Receiver Design, Coding, and FEC.
- 5G Wireless Networks, LTE, LTE-A, Wireless OFDM, and Heterogeneous Cellular Networks.

## **References and Certificates:**

Furnished upon request.