Curriculum Vitae

Prof. Dr. Aymen I. Zreikat, (IEEE Senior Member (SMIEEE), IEEE Computer Society member (CSMIEEE))

Personal Information

Name: Aymen I. Zreikat.
Title: Full Professor.
Nationality: Jordanian.
Date-of-Birth: 09/01/1969.
Languages: Arabic, English, German.
Gender: Male.
Marital status: married (3 children).

Current Address

College of Engineering, American University of the Middle East,
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Academic Qualifications

(1)- **Ph.D.**, School of Informatics, Computing Department, University of Bradford, UK, December 3, 2003.

Ph.D. Topic: Performance Evaluation of Wireless Mobile Networks:

(Capacity Bounds and Call Admission Control Algorithms for Wireless Mobile Networks in Different Propagation Environments).

(2)- **M.Sc.** Of Science in Computational Engineering (CE), University of

Erlangen-Nurmberg ,Germany, 15 August, 2000. **(In English).**

Master Thesis Topic: Performance Evaluation of Non-Homogeneous

Multi-Server Systems using MOSEL.

(3)- **B.Sc.** Computer Science, Yarmouk University, Jordan, 06/06/1990.

(4)- Secondary School, Jordan, 21/07/1986.

Short Biography

I have obtained my B.Sc. in Computer Science from Yarmouk University, Jordan in 1990 and MSc. in Computational Engineering from the University of Erlangen, Germany in 2000. Additionally, I have obtained my Ph.D. from Bradford University, UK in 2003. In January 2001, I have joint the Performance Modelling and Engineering Research Group at the computing department of Bradford University, UK. My area of research is in the Performance Evaluation and Resource Management of Wireless Mobile Networks and beyond. I have two books and a set of international Journal and Conference papers in this field and I am responsible for reviewing a set of papers in this area of research. Furthermore, I am a member of some national and international coordinating committees; such as IEEE senior member, computer society member, member of the coordinating committee for the management of Queen Rania Al-Abdullah Center for Educational Technology, Jordan, April 2009, a member and chairperson of a Committee for Higher Education Accreditation Commission, Jordan 14 times (2009-2015) and a member of student development and progress committee, member of ABET curriculum and assessment committee at American University of the Middle East, telecommunication and networking technology (TNT) Department. Member of MOSEL group and

also a member of the editorial board of the International Journal of software engineering and its applications (IJSEIA), Korea, 2012. On 16/3/2004 I have been appointed as an assistant professor at the College of Sciences, Information Technology Department at Mu'tah University, Jordan. On 16/3/2009, I have been promoted to associate professor at the same University. On 16/3/2014, I have been promoted to full professor. I have been appointed as an Assistant Dean, College of Sciences, Mu'tah University, from 1/9/2008 to 1/9/2010. Moreover, I have been appointed as the chairman of the Information Technology at Mu'tah University from 1/9/2010 to 1/9/2011. Additionally, I have been appointed as the faculty of science coordinator at the Military side, at Mu'tah University, on 1/4/2014. From 1/9/2014 to 1/9/2015, I have been appointed as a vice/Acting Dean at the Faculty of Science, at Mu'tah University. Currently, I have appointed as a Full Professor, College of Engineering, American University of the Middle East, Kuwait, from 1/9/2015 – present.

Administrative Work & Current Position (1/9/2008-present):

- Full Professor, American University of the Middle East, Kuwait from 1/9/2015-present.
- Vice Dean at the Faculty of Science, Mu'tah University from 1/9/2014-1/9/2015.
- Acting Dean at the Faculty of Science, Mu'tah University, several times.
- Faculty of Science coordinator at the military wing, Mu'tah University from 15/4/2014-1/9/2014.
- Chairperson of IT at Mu'tah University from 1/9/2010-1/9/2011.
- Assistant Dean at the Faculty of Science from 1/9/2008-1/9/2010, Mu'tah University, Jordan.

Membership of professional bodies

- **Externally (Internationally):**
  - IEEE Senior member.
  - IEEE Computer Society member.
  - Member of IEEE centre for leadership excellence.
  - Member of the Editorial Advisory Board for the book titled "Powering the Internet of Things With 5G Networks" to be published by IGI Global (https://www.igi-global.com/book/powering-internet-things-networks/178727) , July 2017.
  - Member of the editorial board of the International Journal of software engineering and its applications (IJSEIA), Canada, 2012: http://sersc.org/journal/index.php/ijseia/about/editorialTeam
  - Member of the postgraduate forum at Bradford University, UK, 2003.

○ Member of MOSEL research group in the operating system Department at the University of Erlangen, Germany: URL: http://www4.informatik.uni-erlangen.de/Projects/MOSEL/

○ Member of the "Open Day" program at Bradford University, UK, 2000-2003.

○ Member of the evaluation committees for Jordanian and international magazines.\

▪ **Internally (Nationally (Jordan/Kuwait):**

○ Students Development and Progress committee, American University of the Middle East, Kuwait, from Sep. 2019-present.

○ Member of ABET Curriculum Committee, American University of the Middle East, Kuwait, 2015-2019.

○ Member of ABET Assessment Committee, American University of the Middle East, Kuwait, 2017.

○ Member and Chairman of a Committee for Higher Education Accreditation Commission, Jordan, 14 times (2009-2015).

○ Member of the reviewer's committee of projects support at the Ministry of higher education, Scientific Research Support Fund (SRSF), Jordan, 2013.

○ Member of the editorial board of Mu'tah Journal for research and studies (natural and applied science series) Jordan from 20/9/2012.

○ Member of the Coordinating Committee for the management of Queen Rania Al-Abdullah Center for Educational Technology, Jordan, April 2009.

○ Member of the Faculty of Science Council (i.e. Executive Board), Jordan, many times (2007- 2015).

○ Member of the consultation Council of Karak Governorate, Karak, Jordan.

○ Member and head of the student union elections committee in Mu'tah University, Jordan for many times.

○ Member of the organizing committee of the first scientific week of the faculty of science, Mu'tah University, Jordan, 4/5-7/5, 2008.

○ Member of the corresponding committee for the appointment of computer science teacher at the ideal school, Mu'tah University, Jordan, 2008.

○ Member of the committees corresponding to emission for postgraduate studies, Jordan.

○ Member of the corresponding committees for the appointment of members of the faculty in the Department of Information Technology, Jordan.

○ Head of the Technical Committee of the Central Tenders at Mu'tah University, Jordan, 2005.

○ The final year project committee, IT Department, for both civil and military wings, Jordan.

o Member of the Committee for discussion of Master Thesis at the University of Jordan in December 2004.

o Member of the Disciplinary Committee for Students, Faculty of Science, Mu'tah University, Jordan.

o Member of the supervisory committees of Abdel Hamid Shoman Prize for secondary schools, Jordan in 2006.

Employment Experience (1990 -present)

- Full Professor, American University of the Middle East, Kuwait, from 1/9/2015-present.

- Full Professor, Faculty of Information Technology, Mu'tah University, Jordan, from 16/3/2014-1/9/2015).

- Associate Professor, Department of Information Technology, Mu'tah University, Jordan, 16/3/2009-16/3/2014.

- Assistant Professor, Department of Information Technology, Mu'tah University, Jordan, 16/3/2004-16/3/2009.

- I have joint the computing Department, Bradford University, UK in Jan. 2001 as a Ph.D. student where I was working as TA and assisting the professors in teaching different courses: Java programming, HTML, Simulation Techniques, Communication skills…etc., for graduate and postgraduate students at different levels (2001-2003).

- During the study of my master's in Germany, I was working at the Operating system (O.S) Department at Erlangen University: preparing exercises to the students, TA (Teaching Assistant), (1998-2000).

- I worked at Siemens AG, Erlangen, Germany as a Software maintenance after I finished the master's degree, from (1st August-26th October 2000).

- After Military Service, I was officially working at Mu'tah University, Jordan, Department of Information Technology as Teaching Assistance (TA). From (22/5/1993-1/1998).

- I have been working during the Military Service (2 years) at Mu'tah University, Jordan, Department of Information Technology as Teaching Assistant (TA), (1990-1992).

- (25/04/1992-7/5/1993): programmer at the General Contracting Company, Amman, Jordan.

Training Courses given to me:

- Training course for the Academic Staff at the Department of Information Technology, at Mu'tah University given by Microsoft in VB.NET, in 2008.

- Computer license course (ICDL), given by the Academic Staff of Development and Quality Assurance Centre, Mu'tah University, Jordan from 09/10/2005-03/01/2006.

- Training course for new Academic Staff at Mu'tah University given by Academic Staff of Development and Quality Assurance Centre, at Mu'tah University, from 27/04/2004-18/05/2004.
- E-learning Training course for the Academic Staff at Mu'tah University given by Academic Staff Development and Quality Assurance Centre, at Mu'tah University, from 27/04/2004-18/05/2004.
- A training course in UNIX operating systems applications given by GBM Company from 25/04/1995-03/05/1995.
- An Introduction to UNIX operating systems at the University of Jordan from 25/06/1994-04/07/1994.

International Training Courses given by me:

-Modelling and Simulation of UMTS Networks. Held on 15-19 December 2003 in Telekom Research and Development Sdn Bhd in Malaysia.

Research Interests:

- Mobile Computing.
- Performance Evaluation and resource management of Wireless Mobile Networks (uplink, downlink, i.e. 3G, 4G) and beyond: Capacity bounds and call admission control algorithms in different propagation environments.
- Modelling and Simulation of cellular wireless Networks.
- QoS and Resource Management of Wireless Mobile Networks.
- Start working on performance evaluation of 5G wireless networks from 1/1/2019.
- AI/Internet of Things (IoT).

Research Students, Supervision and Promotion Evaluation:

1. External Supervisor to Ph.D. student: "Ismat Al-Dmour" who has been awarded the Ph.D. from Glamorgan University, UK, 3 September 2008.

   Title: "On the Capacity Modelling in 3G Mobile Wireless Communications Systems and Beyond."

2. Abdul Hameed Shoman Foundation Award for teachers of science in Jordan Elementary and Secondary Schools in 2006: under my supervision, the prize has been given that year to Mr. Maher Farah Haddadin for his participation entitled: "Using the computer to do the experiments in the physics lab instead of the traditional way".

3. I was supervising a group of graduate and undergraduate students who are working at final year projects, Mu'tah University, Jordan, from 2004-2015.

4. Supervision of Postgraduate programs, Faculty of Information Technology, Mu'tah University, Jordan, from 2004-2015.

5. I was evaluating many applications in different countries for promotion to assistant, associate and full professor ranks.

-Recent one: Evaluating promotion application to Full Professor, University of Babylon, Iraq, in May 2024.

External Examiner:

1. Amman Arab University, Master Thesis: "Diseased Iris Recognition Technique Based on Image Enhancement". Anas Al-Hourani, December 2011. (Head of Examination Committee)
2. University of Jordan, Master Thesis: "Routing of Ad Hoc Networking", Inas Tarawneh December 2004. (External examiner).

Achieved national and International Grants

1. Ministry of Higher Education and Scientific Research (Scientific Research Support Fund, SRSF) grant, Jordan, October 2009. The research proposal is entitled: "QoS-Sensitive Resource Management in Wireless Mobile Networks". (http://www.srf.gov.jo), 2009. Project No. : (ت ح 3/4/2008).
2. British Council Grant: May, 25th – June 30th /2007. In the field of performance evaluation of broadband wireless networks. (www.getconnectedukjordan.com), 2007.
3. DFG grant for three months: from (1st June/2005-1st August/2005). Grant number: 446 JOR-J 12/11/2005. It was in the field of performance modelling of computer and communication systems, Erlangen University, Germany, 2005.
4. DFG grant for one month: from (1st June/2006-30th June/2006). Grant number: 446 JOR-J 12/11/2005. It was in the field of performance modelling of computer and communication systems as a completion of the work that has been done in the previous visit, PASSAU University, Germany, 2006.
5. EPSRC (Engineering & Physical Sciences Research Council (UK)): Grant No. GR/R85471/02:2004. The research topic: Comparative Capacity/Coverage Analysis of CDMA Cell in Different Propagation Environments. http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=GR/R85471/02
6. Partially supported Research by German-Hungarian Bilateral Intergovernmental Scientific Cooperation, Performance Modelling of Non-homogeneous Unreliable Multi-Server Systems using MOSEL. OMFB-DLR No. HUN97/015, OMFKFP grant 0004/99 and Hungarian Scientific Research Fund OTKA-T30685/99, 1999.
   Site: http://www4.cs.fau.de/~bolch/Veroeffentlichungen/Treports.html.

Activities and Participation in Conferences and Workshops

- Innovating Education: AI-powered Study Tool from Pearson Showcase given by Pearson, 23 May, 2024.

- Participating in a webinar "Responsible, academic AI for Web of Science researchers", given by Clarivate, 22 May, 2024.

- Participating in a webinar "Scopus Content Selection Webinar for Arabic Region Editors" given by Clarivate, 22 May, 2024.

- Participating in a webinar "GoToWebinar - How to publish in open access journals? AUM (OA0101MEN)" given by "Emerald Publishing" and arranged by American University of the Middle East, AUM. Apr. 21 2024.

- Participating in a webinar "What's Working in the B-School Global Media Landscape? Successful Strategies for Communications Directors & How to Stand Out!" given by "Times Higher Education and Poets&Quants", Apr. 15 2024.

- Participating in a webinar "GoToWebinar-Becoming an international reviewer AUM (NP0105MEN)" given by "Emerald Publishing" and arranged by American University of the Middle East, AUM. Apr. 15 2024.

- Participating in a webinar "Publication ethics and increasing your citations AUM (NP0101MEN) " given by "Emerald Publishing" and arranged by American University of the Middle East, AUM. Apr. 7 2024.

- Participating in "AUM International Summit on Artificial Intelligence", arranged by American University of the Middle East, Monday, March 4th, 2024.

- Participating in the following training sessions arranged by American University of the Middle East, on Tuesday March 5th: Scopus AI training session, Multi and Interdisciplinary research and Gaining reputation and visibility through network expansion.

- Participating in a "Faculty Panel Discussion on Clean Energy" arranged by American University of the Middle East, Kuwait on 30 Jan. 2024.

- Participating in a webinar: "Transforming research: An in-depth exploration of Scopus AI", given by Elsevier, on 29 Jan. 2024.

- Participating in a webinar: Developing Collaborations that Drive Innovation, online webinar, 19 September, 2023, given by Clarivate.

- Participating in IEEE Authorship and Open Access Symposium: Tips and Best Practices to Get Published from IEEE Editors, online, 20 September, 2023, given by IEEE Explore team.

- Participating in a webinar: Large Language Models and the End of Programming, online webinar, 9 May, 2023, given by ACM learning centre.

- Participating in IEEE Authorship and Open Access Symposium: Tips and Best Practices to Get Published from IEEE Editors, 4 May, 2023, online Symposium given by IEEE.

- Participating in IEEE 13th Annual Computing and Communication Workshop and Conference (CCWC2023), Virtual Conference, USA, 8- 11 March 2023.

- Participating in the webinar: Automatic Image Clustering with Multilevel Quantum Systems, given by IEEE computer society, 08 February 2023.

- Participating in the webinar: "7 Skills to Stay Competitive & Relevant in 2023", given by IEEE computer society, 26 January 2023.

- Participating in the webinar: "Mainframe Modernization: Automation Makes it Possible" given by IEEE computer society, 19 January 2023.

- Participating in the "Choosing the Right Journal for Engineering, Computing & Technology Research" webinar given by Taylor & Francis Group on Tuesday 28 June 2022.

- Participating in "Being a more efficient & global researcher with Mendeley" webinar given by Elsevier on Monday 21 February 2022.

- Participating in the "Brief comparison and explanation of all the research indices" webinar given by Elsevier on Tuesday 15 February 2022.

- Participating in the "Uniqueness of Science Direct Platform & New Pilot Release" webinar given by Elsevier on Monday 15 February 2022.

- Participation in 2022 IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC), USA, 26- 29 Jan. 2022, USA.

- Participation in "Increasing the visibility and impact of your research", given by Taylor and Francis Group, Dec. 16, 2021. (Certificate of participation and attendance is available).

- Participation in the online workshop of Abu Dhabi University EDU 2030 – Use of technology in Hybrid education professional development, held from 17 to 24 October 2021. (Certificate of participation and attendance is available).

- Participation in online IEEE Explore webinar: "Search strategies to maximize your research experience", held on October 20, 2021. (Certificate of participation and attendance is available).

- Participation in online IEEE Explore webinar: "How to publish open access with IEEE to increase the exposure and impact of your research", held on September 29, 2021. (Certificate of participation and attendance is available).

- Participation in an online webinar discussing:" IoT for smart buildings and the future of work" given by GlobalDWS company, held on 6/7/2021. (Certificate of participation and attendance is available).
- Participation in Virtual Novel Webinar, researcher academy, on 02/06/2021. (Certificate of participation and attendance is available).
- Participation in "Inspiring Innovation in IEEE Explore" training webinar, May 26, 2021. (Certificate of participation and attendance is available).
- Participation in the "MATLAB" training webinar given by MathWorks, June 23, 2021. (Certificate of participation and attendance is available).
- Participation in "Excellence in Peer review: how to become an effective peer reviewer", given by Taylor and Francis Group, June 23, 2021. (Certificate of participation and attendance is available).
- Participation in "Increasing your research impact", given by Taylor and Francis Group, June 29, 2021. (Certificate of participation and attendance is available).
- Participation in Training workshop in "Strategies for Searching IEEE Explore", Virtual Workshop, 06 October 2020. (Certificate of participation and attendance is available).
- Participation in Researcher Academy Scopus workshop, Virtual Workshop, 28 April 2021. (Scopus For AUM - 2 | Elsevier Researcher Academy). (Certificate of Attendance is available)
- Participation in IEEE World AI IoT Congress 2021, 10-13 May, 2021, Seattle, USA, Virtual Conference. (Certificate of participation and attendance is available).
- Participation in 2021 IEEE 11th Annual Computing and Communication Workshop and Conference (CCWC), 27- 30 Jan. 2021, virtual conference, USA.
- Participation in 2020 PMU International Conference on Industrial Revolution 4.0 in Computing, Mobility, and Manufacturing (CMM 2020), virtual conference, 08-10 December 2020, Khobar, Saudi Arabia.
- Participation in 19th International Conference on Next Generation Wired/Wireless Advanced Networks and Systems, Springer Publisher, 26-28 August 2019, St. Petersburg, Russia.
- Participation in 10th IEEE-GCC conference and exhibition, 19th-23th, April 2019, Regency Hotel, Kuwait.
- Participation in the International Conference on Vehicular Mobile and Wearable Technology (VMW'17) as a part of the 3rd World Congress on Electrical Engineering and Computer Systems and Science (EECSS'17), Rome, Italy, 4-6, June 2017.
- Participation in the 29th European Conference on Modelling and Simulation, ECMS 2015, Technical University of Sofia, Albena (Varna), Bulgaria, May 26th-29th, 2015.

- Participation in the 26th annual conference of the European Council for Modelling and Simulation, held at the Koblenz Campus of Koblenz-Landau University, Germany, from May 29 to June 1, 2012.
- Participation in IMCL conference, Princess Sumaya University, Amman, Jordan, 16-18 April, 2008.
- Participation in the JUNet-Microsoft Academic Innovation Day, Grand Hyatt Hotel, Amman, Jordan, December 17th, 2007.
- Participation in International Conference in Telecommunication, IEEE, ICT'2003 Conference, Feb. 23 - Mar. 01, Tahiti, French Polynesia.
- Participation in the Sixth United Kingdom Simulation Society Conference, Emmanuel College, Cambridge, London, UK, April 2003.
- Participation in the World Wireless Congress, San Francisco, USA, June 2002.
- Participation in the 3rd Annual Postgraduate Symposium on the Convergence of Telecommunications, Networking and Broadcasting, Liverpool, John Moore's University, UK, 17th-19th, June 2002.
- Participation in the 2nd Annual Postgraduate Symposium on the Convergence of Telecommunications, Networking, and Broadcasting, Liverpool, John Moore's University, UK, 17th-19th, pp. 201-205, June 2001.
- Participation in the European Simulation Multi-conference (ESM2001), Prague, Czech Republic, June 2001.
- Participation in ESS2000 Conference, Hamburg, Germany, September 28-30, 2000.

Up-To-Date Publications
● *Books*

1. Zreikat A. I. (November 1, 2011): Radio Resource Management and Modelling for Wireless Mobile Networks: Enhancement of Call Admission Control Algorithms (CACAs) and Capacity Bounds in UMTS/GSM Networks, published in LAMBERT Academic Publishing, Germany, 216 pages. (ISBN-10: 3846534994, ISBN-13: 978-3846534991).

2. Zreikat A. I. (January 3, 2012): Modelling, Specification, and Evaluation of Multi-server Queuing Systems: Practical Solution using MOSEL language, Published in LAMBERT Academic Publishing, Germany, 188 pages. (ISBN-10: 3846536474, ISBN-13: 978-3846536476).

● *Chapter in Book*

3. Zreikat A. I. Mercan S. (2019):" Performance Study of 5G Downlink Cell", Part of the Lecture Notes in Computer Science book series (LNCS, volume 11660), online 12 Sep. 2019, pp. 377-389.

4. Elbasi, E.; Zreikat A. I., Topcu, A.E. and Cina E. (2024):"Machine learning and IoT approaches in diagnosis of COVID-19". In a book entitled "IoT and ML for Information Management: A Smart Healthcare Perspective". Springer Book Series entitled "Studies in Computational Intelligence", 2024.

● *Peer Reviewed Journals*

5. Aymen I. Zreikat, Shinu Mathew (2024). "Performance Evaluation and analysis of Urban-Suburban 5G Cellular Networks". Published in Computers, MDPI, 22 April, 2024, Vol. 13, No. 4, (108), pp. 1-30. DOI: https://www.mdpi.com/2073-431X/13/4/108

6. Ahmet E. Topcu, Aymen I. Zreikat, Elbasi E (2024)."Machine Learning Approaches for the Diagnosis of H1N1 and COVID-19", International Journal of Intelligent Systems and Applications in Engineering (IJISAE), 25, Jan. 2024, Vol. 12, No. 2, pp. 436–447.DOI: https://ijisae.org/index.php/IJISAE/article/view/4287

7. Elbasi, E.; ZAKI, C.; Topcu, A.E.; Abdelbaki, W.; Zreikat, A.I.; Cina, E.; Shdefat, A.Y.; Saker, L. (2023). Crop Prediction Model using Machine Learning Algorithms. Applied Sciences Journal, MDPI, Appl. Sci. , 16 August, 2023, 13(16), 9288, 09 Aug 2023. DOI: 10.3390/app13169288.

8. Elbasi E, Nour Moustafa, Zakwan AlArnout, Aymen I. Zreikat, et. al.. (2023). Artificial Intelligence Technology in the Agricultural Sector: A Systematic Literature Review," in IEEE Access, IEEE explore, 02 Jan. 2023, Vol. 11, No. 1, pp. 171-202. Doi: 10.1109/ACCESS.2022.3232485.

9.Elbasi E., Zreikat A. I. (2023). "Heart disease classification for early diagnosis based on Adaptive Hoeffding Tree algorithm in IoMT data", International Arab Journal of Information Technology (IAJIT), Volume 20, No. 1, Jan. 2023, pp. 38-48. doi: 10.34028/iajit/20/1/5 .

10. Zreikat A. I., Samer Al-abed (2022). "Performance Modelling and Analysis of LTE/Wi-Fi Coexistence". Electronics, MDPI, vol. 11, issue 7, 25 March 2022.

11. Samer Alabed, Aymen I. Zreikat, Mohammad Al-Abed (2022). " A computationally efficient non-coherent technique for wireless relay networks", International Journal of Electrical and Computer Engineering (IJECE), Institute of Advanced Engineering and Science, Vol. 26, No. 2, May 2022, pp. 1-7.

12. Zreikat A. I. (2020): "Performance Evaluation of 5G/WiFi-6 Coexistence", International Journal of Circuits, Systems and Signal Processing, North Atlantic University Union (NAUN), Vol. 14, 13 Dec. 2020, pp. 904-913

13. Al-hawawreh M., Zreikat A. I. (2017):" Performance Analysis of a WIMAX Network in Different Propagation Models". Published in International Journal of Computer Science and Information Security (IJCSIS), InderScience, Vol. 15, No. 1, January 2017.

14. Zreikat A. I. (2013): "A new WIMAX/WI-FI interoperability model and its Performance Evaluation", Wireless Personal Communications, Springer (USA), Vol. 72, No. 2, pp. 1229-1257. DOI 10.1007/s11277-013-1075-2.

15. Zreikat A. I., Al-Dmour I. and AL-Begain K. (2013): "Performance Model of a WIMAX 2.0 All-IP 4G System", Wireless Personal Communications, Springer (USA), Vol. 72, No. 1, pp. 191-210. DOI 10.1007/s11277-013-1008-0.

16. Zreikat A. I. (2013): "Modelling Specification and Performance Evaluation of 3G Cellular Wireless Networks by MOSEL-2 language". Published in AMSE, Advances in Modelling (Series D: Computer Science and Statistics), Vol. 18, No. 2, pp. 49- 76.

17. Zreikat A. I. (2013): "QoS-based Performance and Resource Management in 3G Wireless Networks in realistic environments", in the International Arab Journal of Information Technology (AJIT), Vol. 10, No. 1, pp. 1-9.

18. Zreikat A. I. (2013):" Numerical Solution of Queuing model of UMTS cell with virtual single-channel zones using MOSEL-2 language". Published in AMSE, Advances in Modelling (Series D: Computer Science and Statistics), Vol. 18, No. 1, pp. 35-50, 2013.

19. Zreikat A. I. (2012): "Performance and Resource Management of Concentric Cells by means of Nominal load space in GSM Systems", in Abhath Al-Yarmouk Journal, pure Science and Engineering Series, Yarmouk University, Irbid, Jordan, Vol. 21, No. 2, pp. 189-211.

20. Zreikat A. I., Yerima S., Al-Begain K. (January 2008): "Performance Evaluation and Resource Management of Hierarchical MACRO-/MICRO Cellular Networks Using MOSEL-2", Wireless Personal Communications, Springer (USA), Vol. 44, No. 2, pp. 153-179.

21. Zreikat A. I. (2008): "Performance Evaluation of GSM-Based Networks in Underlay-Overlay Using Maximum Entropy Principle: Published in Al-Manarah Journal, Al-Byt University, Al-Mafraq, Jordan, Vol. 14, No. 3, pp. 103-121.

22. Al-Dmour I., Al-Begain K., Zreikat A. I. (2007): "Uplink Capacity/Coverage Analysis of WCDMA switched Beam Smart Antennas in CDMA Systems", Wireless Personal Communications, Springer (USA), Vol. 43, No. 4., pp. 1705-1715.

23. Zreikat A. I. (April 2007): "Numerical solution of one GSM cell using MOSEL-2 language", published in the International Arab Journal of Information Technology (IAJIT), Al- Zarqa University, Vol. 4, No. 2, pp. 133-140.

24. Zreikat A. I. (2007): "Performance Evaluation of one UMTS cell by the new modeling specification and evaluation language MOSEL-2", published in Abhath Al-Yarmouk Journal, Pure Science and Engineering Series, Yarmouk University, Irbid, Jordan, Vol. 16, No. 1, pp. 105-122.

25. Zreikat A. I., Bolch G. (2007): "Performance Evaluation of Queuing Networks with Finite Capacity and non-exponential Distribution using MOSEL-2", AMSE, Advances in Modelling (Series D: Computer Science and Statistics), Vol. 12, No. 3-4, pp. 87-106.

26. Zreikat A. I. (2006): "Performance of Queueing model of One UMTS cell with R virtual zones by the Maximum Entropy Solution", Wireless Personal Communications, Springer (USA), Vol. 39, No. 2, pp. 135-149.

27. Al-Dmour I., Al-Begain K., Zreikat A. I. (April 2006): "Capacity Bounds Analysis of switched Beam Smart Antennas in CDMA Systems", Proceedings of UK simulation (UKSIM2006), Oxford, UK, No. 4-6, pp. 91-96.

28. Zreikat A. and Al-Begain K., Smith, K. (2004): "Comparative Capacity/Coverage Analysis of CDMA Cell in Different Propagation Environments", Wireless Personal Communications, Springer (USA), Vol. 28, No. 3, pp. 205-231.

29. Al-Begain K., Barner J., Bolch G., Zreikat A. (2003): The Performance and reliability modeling language MOSEL and its applications, International Journal in Simulation: Systems, Science and Technology, Vol. 3, No. 3-4, pp. 66-80.

30. Zreikat A. I., Bolch G., Sztrik J. (2003): Performance Modeling of Non-Homogeneous Unreliable Multi-Server systems using MOSEL, International Journal in Computers and Mathematics with Applications, Elsevier, Vol. 46, pp. 293-312.

31. Zreikat A. I., Al-Begain K. (September 2003): Simulation of 3G Networks in Realistic Propagation Environments. International Journal of Simulation: Systems, Science and Technology, Special Issue by G. K. Theodoropoulos: Modeling and simulation of Computer Systems, Vol. 4, No. 3-4.

32. Zreikat A. I. (December 3, 2003): Performance Evaluation of Wireless Mobile Networks, Ph.D. Thesis, School of Informatics, Computing Department, University of Bradford, UK, pp. 1-224.

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● *Conferences & Workshops*

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41. Zreikat A., Elbasi E (2019): "Performance Evaluation of LTE/Wi-Fi Downlink Interoperability Model", 10th IEEE-GCC conference and exhibition, 19th-23th, April 2019, Regency Hotel, Kuwait.

42. Mercan S., Zreikat A. (2018):" Statistical Analysis of Packet Delay Time and Variation on the Internet", the 10th IEEE Annual Computing and Communication Workshop and Conference, University of Nevada, Las Vegas, USA, 6th - 8th January 2019.

43. Elbasi E., Ayanoglu D., Zreikat A. (2018): "Determination of Patient's Hearing Sensitivity using Data Mining Techniques", IEEE 12th International Conference Application of Information and Communication Technologies, Almaty, Kazakhstan, 17-19 Oct 2018.

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● *Technical reports*

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● *Work in Progress*

62. The first piece of work is an extension to the work that is published in IEEE conference is in progress. The published piece at the conference introduces the derivation of the capacity bounds of 5G networks in a single-cell scenario due to the scope of the conference. Therefore, in an extended version of the work, the capacity bounds are derived at a multi-cell/Network level and in different propagation environments in order to have a more realistic network. The network performance will be evaluated accordingly. This work will have a collaboration with colleagues from American University of the Middle East (AUM), Kuwait and/or international colleagues. The work is entitled: "Performance Analysis of 5G Networks in realistic environments". Intended Journal: IEEE access. (Work is ready for submission soon).

63. The second piece of work is with a colleague in AUM. The work entitled: "Performance Evaluation and analysis of Urban-Suburban 5G Cellular Networks". The work is also ready for submission. Intended Journal: IEEE access. (Work is ready for submission soon).

64. The third piece of work is work in progress with three colleagues in AUM. The work entitled "Sitting Posture Recognition Systems: Comprehensive Literature Review and Analysis".

Awards

1.Dean's Prize for best paper in the 4th Informatics Workshop for Research Students, University of Bradford, Bradford, UK, November 2002.

Website: http://www.brad.ac.uk/admin/pr/pressreleases/2003/deans-prize.php

2.Royal grant for the completion of the bachelor's degree at Yarmouk University, 1986.

3.Mu'tah University scholarship for the completion of the master's degree at Erlangen University, Erlangen, Germany, 1998.

4.Ph.D. scholarship partially supported by each Mu'tah University and Bradford University for the completion of the Ph.D. degree at Bradford University, Bradford, UK, 2000.

Teaching and Practical work

● During the period of my Ph.D., I have been working as Teaching Assistant at the undergraduate and postgraduate levels across the school of Informatics, at the University of Bradford in UK, which comprises the Department of Computing, Cybernetics and Electronic Imaging and Media Communications. I have taught the following courses (the name of the course is followed by the abbreviation which is known to be used in most UK Universities):

- Basic Skills (BITS)

- Communication Skills (COSK)

- Introduction to Programming Design and Applications (IPDA)

- Introduction to Web Technologies (IWT)

- Software Developments (SD)

- Computer Communications and Networks (CCN)

- Network Business and Distributed Information Management (NBDIM)

- Advanced Simulation Modelling (ASM)

- Computer Systems and Performance Modelling (CSPM)

- Graphics and Image Processing (GIP)

- Mobile Networks Performance Modelling (MNPM)

Taught Courses in Mu'tah University and other Universities in both Bachelor and Master level.

- Technology and the Global Society.

- Managing Information Technology Projects

- Advanced Wireless Networks.

- Simulation Techniques and Modelling (B.Sc. level).

- Advanced System & Network Administration.

- Simulation Techniques, Modelling and Scientific Writing Style (M.Sc. level

- Computer Networks.

- Special Topics (2) in Computer Sciences. i.e. Generations of Mobile Networks: 1G, 2G, 3G and beyond (i.e. WiMAX Technology).

- Data Communication and Networking

- E-commerce.

- Computer Skills (1) & (2), i.e. Visual Basic Programming.

- Java programming language.

- Object-Oriented Programming and Concepts.

- Seminar for the graduation project.

- C++ programming language.

- Communication Skills.

- Academic Writing Styles techniques.

- Multimedia, Arabian Education and Training Group, Jordan University, 2011.

- Design and Development of e-business systems, Master level (MBA/ e-Business), Arabian Education and Training Group, Mu'tah University, 2012.

- System programming.

- UNIX Administration.

- Advanced Sys. & Network Administration.

- C Programming Language.

- Information Technology Architecture.
- I also have previous experience in teaching and working with the followings:

Operating Systems

1) Dos.

2) Windows.

3) VMS.

4) Unix/Linux

Programming Languages, Software Packages &Applications

- Object-oriented programming (C#, C++, Python, Java).

- Basic, FORTRAN, Pascal, Fox-pro, Visual Basic, and PHP programming.

- C programming, object-oriented programming: (C++, Python and JAVA).

- Simulation package MOSEL-2 (MOdelling Specification and Evaluation Language) and its applications.

- Latex and their applications.

- Other Software applications (HTML, SQL, etc).

- Microsoft Office.

- Experience in handling on-line exams/assessments.

- Learning and course Management System; Moodle

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