

Curriculum Vitae

Personal Information

Full Name : Dr. Alyaa Mohammed Noori Idan Al-Barrak
Nationality : IRAQI
Date of Birth : 04/06/1979
Place of Birth : Baghdad/ Iraq
Gender : Female
Position : A lecturer, The Department of Computer Science/College of Science/ The University of Baghdad - Vice President of the Iraqi Society for Engineering Management (ISEM)



Contact Details

Address : Iraq-Baghdad- Al Jadraya – The University of Baghdad/College of Science/Computer Science Department
Mobile phone : 00964(0)7727767830
Default Email : Alyaa.al-barrak@Sc.uobaghdad.edu.iq
Other email : Alyaa.al-barrak@Outlook.com

Educational history

1- University Education (B.Sc.)

- University : The University of Baghdad (Iraq).
- College : Science/ University of Baghdad
- Department : Computer
- Degree obtained : BSc.
- From to : 01/10/1997 to 30/06/2001
- Rank : 2 out of 72 students for the both trials
- Average and standard : 74.76%. Good.
- Date : 30/06/ 2001.

2- University Education (MSc)

- University : The University of Baghdad (Iraq).
- College : Science.
- Department : Computer.
- Degree obtained : MSc.
- From to : 01/10/2001 to 14/03/2004 .
- Specialisation : Computer Security.
- Average and standard : 81.92%. V. Good
- Date : 23/05/ 2004.

3- University Education (PhD)

- University : The University of Northampton(UK).
- School : Faculty of Art, Science and Technology.
- Department : Computing.
- Degree obtained : PhD.
- From to : 01/02/2014 to 18/05/2018.
- Specialisation : Wireless Communications.
- Date of award : 04/07/ 2018

Work Experiences

- Gave lessons on Programming languages (practical and theory) (Pascal/C/C++/Prolog / Visual Basic/MATLAB, etc.).
- Gave lessons on Data Structure and Computer graphics (Practical).

- Gave lessons on Artificial Intelligence, Structural Programming, Wireless Communications, and Mobile Computing (Theoretical and Practical), Wireless Body Sensor network.
- Gave lessons on English Language Skills, reading, writing, listening, and speaking, for level 1, 2, 3, 4, Diploma and MSc.
- Supervision on graduation projects (Level four).
- Build Database Systems.
- Gave lessons on Microsoft office (beginner, intermediate advance).
- Gave lessons on How to fix a computer (Software and Hardware).

Employment

- Privet work (1998 to 2006). Small office to fix, sell and buy computers devices, software, components, CDs/DVDs and accessories.
- Lecturer /Computer Science Department-College of Science - The University of Baghdad (IRQ) (2005 till now).
- Manager of Studies, Planning and Flow-up Unit - College of Science - The University of Baghdad (2011-2013).
- Classroom assistance /The University of Northampton (UK) - Faculty of Art, Science and Technology (2014 – 2018).
- Employability Advisor/Social Media Developer in diversiti UK Learning and Development C.I.C (2014 - 2017).
- Manager of Studies, Planning and Flow-up Unit - College of Science - The University of Baghdad (2019 - 2023).

Languages

- English : Excellent (Speaking, Reading, Writing and Listening)
- Arabic (Native Language) : Excellent (Mother language)

Publications

- Abdulla, S.N., and Al Barrak, A.M., 2011. A CRYPTOGRAPHIC TECHNIQUE BASED ON AVL TREE. *Iraqi Journal of Science*, 52(1), pp.85-92.
- Abdulla, S.N., Al Barak, A.M. and Abd-Ali, B.S., 2014, Text Cryptography Using Chinese Remainder Theorem. *Iraqi Journal of Science*, 55(4A), pp: 1618-1624.
- Al Barrak, A., Al-Sherbaz, A., Kanakis, T. and Crockett, R.G., 2015, November. Network coding/forward error correction code for multiple-input multiple-output wireless communication system. In 8th Manchester Metropolitan University (MMU) Postgraduate Research Conference 2015: Innovation.
- Al Barrak, A., Al-Sherbaz, A., Kanakis, T. and Crockett, R.G., 2015. Network coding/forward error correction code for multiple-input multiple-output wireless communication system. 8th MMU Postgraduate Research Conference at Manchester Metropolitan University.
- Al-Barrak, A., Al-Sherbaz, A., Kanakis, T. and Crockett, R., 2016, September. Utilisation of multipath phenomenon to improve the performance of BCH and RS codes. In Computer Science and Electronic Engineering (CEECE), 2016 8th (pp. 6-11). IEEE. Awarded the 1st paper award out of 98 international papers.
- Al-Barrak, A., Al-Sherbaz, A., Kanakis, T. and Crockett, R., 2017. Enhancing BER Performance Limit of BCH and RS Codes Using Multipath Diversity. *Computers*, 6(2), p.21.
- Al-Barrak, A., and Al-Khalil A. B., 2018, Impact of Alamouti Space – Time Block Coding on The Performance of Vehicle – to – Vehicle Communication. In the International Conference on Advanced Science and Engineering 2018 (ICOASE2018).
- Al-Khalil A. B., and Al-Barrak, A., 2018, Performance of BCH and RS Codes in MIMO System Using MPFEC Diversity Technique. In the International Conference on Advanced Science and Engineering 2018 (ICOASE2018).

- Al-Barrak, A.M.N.I., 2018. A Novel Diversity Technique to Improve the Channel Coding Performance in Wireless Communications (Doctoral dissertation, Ph. D. dissertation, University of Northampton).
- Al-Barrak, A., 2019, August. Internet of Things (IoT). In 2019 2nd International Conference on Engineering Technology and its Applications (IICETA) (pp. 1-2). IEEE.
- Al-Barrak, A., 2020, February. Workshop 2 Blockchain in Education. In 2020 6th International Engineering Conference "Sustainable Technology and Development"(IEC) (pp. 242-242). IEEE.
- Behadili, S.F., Al-Barrak, A. and Abd, M.S., Gama Platform Survey for Agent-Based Modelling. In The 3rd Al-Noor International Conference for Science and Technology 3NICST2021, Oman-Muscat. (pp 82-99).
- د. علي آدهم، د. علياء البراك، نبال خليل، 2021. وباء كورونا والازمة الاقتصادية، في مؤتمر دور رأس المال الفكري في تحقيق التنمية المستدامة في عالم ما بعد كورونا والازمة الاقتصادية. بغداد-العراق.
- Hayawi, H.R. and Al-Barrak, A., 2022. Use of learning methods for gender and age classification based on front shot face images. International Journal of Nonlinear Analysis and Applications.
- Ibrahim, N.J., Ali, Y.H., Al-barrak, A. and Rashid, T.A., 2022. Text image secret sharing with hiding based on color feature. Periodicals of Engineering and Natural Sciences, 10(2), pp.358-375.
- Ayyed, S.A. and Al-Barrak, A., 2023. Diagnostic COVID-19 based on chest imaging of COVID-19: A survey. International Journal of Nonlinear Analysis and Applications, 14(1), pp.1295-1309.
- Al-Barrak, A., Alatta, H.J., Behadili, S.F., Sayyid, B.H., Adham, A. and Mahmood, M.A., 2024, April. Modeling and analysis of thermal contrast based on LST algorithm for Baghdad city. In AIP Conference Proceedings (Vol. 3079, No. 1). AIP Publishing.
- Mohammed, S.M., Al-Barrak, A. and Mahmood, N.T., 2024. Enabling Technologies for Ultra-Low Latency and High-Reliability Communication in 6G Networks. Ingénierie des Systèmes d'Information, 29(3).