

CURRICULUM VITAE

Name: Ahmed Mahmoud Mostafa Youssef

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Nationality: Egyptian

CAREER PROFILE/SUMMARY

Ahmed M. Mostafa is an Assistant Professor at Computer and systems Engineering Department, Faculty of Engineering at Helwan, Helwan University, Egypt. He obtained his Bsc, Msc, and PhD degrees in Computer Engineering from Helwan University, Egypt, in 2001, 2007 and 2012 respectively. Currently, he is working as an Assistant Professor at Information Technology Department, College of Computer Science and Information Technology, Al Baha University, Al Baha, Kingdom of Saudi Arabia. His research interests include cloud computing, multicore systems, real-time systems, real-time processing / scheduling, network-on-chip, cyber security, software engineering / formalization, and the Internet of Things.

Computing and Other Skills

Computing

Extensively the following programming languages are used: Assembly Language, Visual Basic, C, SystemC, Object Oriented Programming, Borland C++, Visual C++, JAVA, SQL, and C#.Net Programming Language.

Languages

Fluent in Arabic (native) and English (Very Good).

Research Areas of interest

- 1- Cloud Computing.
- 2- Multicore Systems.
- 3- Real-Time Systems.
- 4- Real-Time Processing/Scheduling.

- 5- Networks-on-Chip.
- 6- Cyber Security.
- 7- Software Engineering/ Formalization.
- 8- Internet of Things.

EDUCATION/ACADEMIC QUALIFICATIONS
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| 2012 | Ph.D. in computer engineering, from Faculty of Engineering at Helwan, Helwan University, Egypt. (2012) Thesis title is: Network-on-Chip Energy aware architecture. |
| 2007 | MSc in computer engineering, from Faculty of Engineering at Helwan, Helwan University, Egypt. (2007) Thesis title is: Software Technique Toward Formal Representation of Unified Modeling Language. |
| 2001 | BSc in Computer Engineering from Electronics, Communications, and Computer Engineering Department / Computer Section, Faculty of Engineering at Helwan, Helwan University, Egypt. (2001). General grade is Very Good THE FIRST with Honor Degree and the Final Year Project grade was (Excellent). |

EMPLOYMENT HISTORY

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| 2001 – 2007 | Demonstrator at Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt. |
| 2007 – 2012 | Teaching Assistant at Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt. |
| 2012 – 2016 | Assistant Professor at: <ol style="list-style-type: none"> 1. Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt. (Full time). 2. Misr International University (MIU), Cairo, Egypt (Part time). 3. 6th October university (Part time). 4. Private program in Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt. |
| 2016 – until now | Assistant Professor at Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt. |
| 2016 – until now | Assistant Professor at Al-Baha University, Al-Baha, Kingdom of Saudi Arabia. |

PUBLICATIONS

- [1] **Ahmed M. Mostafa**, Manal A. Ismail, El Sayed M. Saad and Hatem El-Bolok. "Toward a Formalization of Use Case Diagram using Z Specifications". *Journal of Engineering Sciences*, Assiut University, Vol. 34, No. 1, pp. 173-188, January 2006. doi: 10.21608/jesaun.2006.110104.
- [2] **Ahmed M. Mostafa**, Manal A. Ismail, El Sayed M. Saad and Hatem El-Bolok. "Toward a Formalization of UML2.0 Metamodel using Z Specifications". Eighth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD 2007), Qingdao, China, 2007, vol.1, pp. 694-701, doi: 10.1109/SNPD.2007.508.
- [3] El Sayed M. Saad, Medhat H. Awadalla, Sameh A. Salem and **Ahmed M. Mostafa**, "Network-on-Chip: Power Optimization Architecture Mapping based on Global Interconnection Links", *International Journal of Computer and Electrical Engineering (IJCEE)*, Vol. 3, No 2, pp. 289-296, April 2011. doi: 10.7763/IJCEE.2011.V3.329.
- [4] El Sayed M. Saad, Sameh A. Salem, Medhat H. Awadalla and **Ahmed M. Mostafa**, "PPNOCS: Performance and Power Network on Chip Simulator based on SystemC", *International Journal of Computer Science Issues (IJCSI)*, vol. 8, issue 6, no. 3, pp. 169-179, November 2011.
- [5] El Sayed M. Saad, Sameh A. Salem, Medhat H. Awadalla and **Ahmed M. Mostafa**, "A Power Efficient, Oblivious, Path-Diverse, Minimal Routing for Mesh-based Networks-on-Chip", *International Journal of Computer Science Issues (IJCSI)*, vol. 9, issue 2, no. 2, pp. 339-347, March 2012.
- [6] El Sayed M. Saad, Sameh A. Salem, Medhat H. Awadalla, and **Ahmed M. Mostafa**, "An Integrated Power-efficient Mapping and Routing Technique for Mesh-based Networks-on-Chip", 2013 30th National Radio Science Conference (NRSC), Cairo, Egypt, 2013, pp. 359-369, doi: 10.1109/NRSC.2013.6587934.
- [7] H. A. Hassan, S. A. Salem, **A. M. Mostafa**, and E. M. Saad, "C24. Harmonic semi-partitioning scheduling algorithm for multi-core real-time systems," in 2015 32nd National Radio Science Conference (NRSC), Proceedings, 2015, vol. 2015-June, pp. 305-312. doi: 10.1109/NRSC.2015.7117843.
- [8] H. A. Hassan, S. A. Salem, **A. M. Mostafa**, and E. M. Saad, "Harmonic segment-based semi-partitioning scheduling on multi-core real-time systems", *ACM Transactions on Embedded Computing Systems (TECS)*, vol. 15, no. 4, pp. 1-29, 2016. doi: 10.1145/2933388.
- [9] **A. M. Mostafa**, "IoT architecture and protocols in 5G Environment," in *Powering the Internet of Things With 5G Networks*, edited by Vasuky Mohanan, Rahmat Budiarto, and Ismat Aldmour, IGI Global, July 2017, pp. 105-130. doi: 10.4018/978-1-5225-2799-2.ch004.

- [10] **A. M. Mostafa**, "The Role of Autonomous Computing, Cloud Computing, and Multimedia in IoT," in *Powering the Internet of Things With 5G Networks*, edited by Vasuky Mohanan, Rahmat Budiarto, and Ismat Aldmour, IGI Global, July 2017, pp. 131-147. doi: 10.4018/978-1-5225-2799-2.ch005.
- [11] S. Alqithami, M. Alzahrani, A. Alzahrani, and **A. Mustafa**, "AR-Therapist: Design and Simulation of an AR-Game Environment as a CBT for Patients with ADHD," *Healthcare*, vol. 7, no. 4, p. 146, Nov. 2019, doi: 10.3390/healthcare7040146.
- [12] S. Alqithami, M. Alzahrani, A. Alzahrani, and **A. Mostafa**. "Modeling an augmented reality game environment to enhance behavior of adhd patients." In *Brain Informatics: 12th International Conference, BI 2019, Haikou, China, December 13–15, 2019, Proceedings 12*, vol. 11976, pp. 179-188. Springer International Publishing, 2019. doi: 10.1007/978-3-030-37078-7_18.
- [13] **A. M. Mostafa**, "An MCDM Approach for Cloud Computing Service Selection Based on Best-Only Method," *IEEE Access*, vol. 9, pp.155072-155086, 2021. doi: 10.1109/ACCESS.2021.3129716.
- [14] **A. M. Mostafa**, "An Integrated Framework for Cloud Service Selection Based on BOM and TOPSIS," *Computers, Materials & Continua (CMC)*, vol. 72, no.2, pp. 4125–4142, 2022. doi: 10.32604/cmc.2022.024676.
- [15] **A. M. Mostafa**, "A Hybrid Framework for Ranking Cloud Services Based on Markov Chain and the Best-Only Method," in *IEEE Access*, vol. 11, pp. 50-66, 2022, doi: 10.1109/ACCESS.2022.3232746.
- [16] A. S. Khan, M. I. Yahya, K. Zen, J. Abdullah, R. A. Rashid, Y. Javed, N. A. Khan, **A. M. Mostafa**, "Blockchain-Based Lightweight Multifactor Authentication for Cell-Free in Ultra-Dense 6G-Based (6-CMAS) Cellular Network," in *IEEE Access*, vol. 11, pp. 20524-20541, **2023**, doi: 10.1109/ACCESS.2023.3249969.

Web of Science Account:

<http://www.webofscience.com/wos/author/record/HMV-4677-2023>

Scopus Account:

<https://www.scopus.com/authid/detail.uri?authorId=54795639200>

Orcid Account:

<https://orcid.org/0000-0002-2581-1331>

Google Scholar Account:

<https://scholar.google.com/citations?user=9NPfxXYAAAAJ&hl=en>

PRESENTATIONS

- [1] El Sayed M. Saad, Sameh A. Salem, Medhat H. Awadalla, and **Ahmed M. Mostafa**, “An Integrated Power-efficient Mapping and Routing Technique for Mesh-based Networks-on-Chip”, 2013 30th National Radio Science Conference (NRSC), Cairo, Egypt, 2013, pp. 359-369, doi: 10.1109/NRSC.2013.6587934.

RESEARCH FUNDS/GRANTS

Funded Research Projects:

- [1] **Project Title:** Development of Albaha University Network Security Management System
Funded By: Al-Baha University
Project No.: 70-1438
Start Date: 12/10/1438
End Date: 12/8/1439
- [2] **Project Title:** Development of an Intelligent System for Medical Diagnosis
Funded By: Al-Baha University
Project No.: 26-1439
Start Date: 12/09/1439
End Date: 12/07/1440
- [3] **Project Title:** An Intelligent Cognitive Model to Enhance the Behaviour of Children with ADHD using a Mixed Reality Environment
Funded By: Al-Baha University
Project No.: 4-1439
Start Date: 21/1/1440
End Date: 3/2/1441
- [4] **Project Title:** User Behavior Analytics Tool Using Predictive-Memory Concept
Funded By: Al-Baha University
Project No.: 24-1440
Start Date: 02/01/1441
End Date: 02/11/1441

TEACHING EXPERIENCE

As an Assistant Professor at Faculty of Engineering at Helwan - Helwan University – Cairo - Egypt, College of Computer Science and Information Technology – Al-Baha University- Al-Baha – Saudi Arabia, part timer at Faculty of Computer Science - Misr International University – Cairo – Egypt, and part timer at The Higher Institute of Engineering - 6th

October University - Cairo - Egypt, I have been working for 21 years as an instructor and taught the following courses:

Undergraduate Courses:

- Matrices and Linear Algebra
- Probability and Statistics
- Signals and Systems Analysis
- Image Processing
- Multimedia Compression
- Introduction to Computers
- Introduction to Computer Science
- Introduction to Information Technology and Communications
- Introduction to Programming and Problem Solving
- Introduction to Algorithmic Problem Solving
- Design and Analysis of Algorithms
- Computer Programming II
- Advanced Programming
- Object Oriented Design and Development
- Data Structures and Algorithms
- Digital Logic Design
- Computer Architecture and Organization
- Embedded Systems Software Architecture
- Embedded Systems Operating Systems
- Data and Computer Communications
- Computer Networks I
- Computer Networks II
- Computer Networks
- Mobile and Wireless Networks
- Database Systems I
- Database Systems II
- Distributed Systems
- Operating Systems
- System Administration Integration

Postgraduate Courses:

- Computer Engineering
- Digital Computer Engineering
- Digital Forensics

Graduation Projects:

- **Project Title:** The Droid Waiter System
University: Misr International University
Academic Year: 2012/2013
- **Project Title:** Course Management System
University: Misr International University
Academic Year: 2012/2013
- **Project Title:** Feeding Arm Robot
University: Helwan University

- Academic Year:** 2012/2013
- **Project Title:** Car Platform
University: Helwan University
Academic Year: 2013/2014
- **Project Title:** Task Bunny
University: Helwan University
Academic Year: 2013/2014
- **Project Title:** Airport Management System
University: Helwan University
Academic Year: 2013/2014
- **Project Title:** Virtual Remote Control (Smart Home)
University: Al-Baha University
Academic Year: 2016/2017
- **Project Title:** IoT-Based Patient Monitoring System
University: Al-Baha University
Academic Year: 2018/2019

COMMITTEES

- Timetable, registration, and exams committee at the IT Department, Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Department study plan committee at the IT Department, Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Secretary of the department council at the IT Department, Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Academic Affair committee at the Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Postgraduate Studies and Scientific Research Committee at the Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Quality coordinator at the Faculty of Computer Science and IT, Al-Baha University, Kingdom of Saudi Arabia.
- Quality consultant from 2019 till now at the Deanship of Quality and Academic Accreditation, Al-Baha University, Kingdom of Saudi Arabia.

AWARDS

- 2016, A Certificate of Thanks and Appreciation from the Deanship of Student Affairs at Al-Baha University, Kingdom of Saudi Arabia for active participation in the success of the activities of the seventh student conference for Al-Baha University students (towards cognitive creativity and a distinguished leadership generation).
- 2018, Excellence in student activity, Faculty of Computer Science and Information Technology, Al-Baha University, Kingdom of Saudi Arabia.

- 2019, Excellence in student activity, Faculty of Computer Science and Information Technology, Al-Baha University, Kingdom of Saudi Arabia.
- 2019, Award for the Best Graduation Project Idea for the project titled “IoT-Based Patient Monitoring System”, Faculty of Computer Science and Information Technology, Al-Baha University, Kingdom of Saudi Arabia.
- 2021, A Certificate of Thanks and Appreciation from the rector of Al-Baha University in the Kingdom of Saudi Arabia for assisting as a consultant at the Deanship of Quality and Academic Accreditation in the process of obtaining the university's institutional accreditation.

SERVICE/OTHER RELEVANT EXPERIENCE/PROJECTS

- Presented a training course titled "Introduction to networks" for students in the Faculty of Computer Science and IT on 2016 at Al-Baha University, Kingdom of Saudi Arabia.
- Participating in the organization of the “Acculturating Interdisciplinary Research Workshop” on 14-May-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a training course titled "Basics of Java programming" for students in the Faculty of Computer Science and IT on 2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a training course titled "Basics of programming in C Sharp" for students in the Faculty of Computer Science and IT on 2018 for 18 Hours at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a workshop titled "Course Specifications and Reports" for teaching staff at the Faculty of Computer Science and IT on 2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Supervision and organization of the "Database Poster Day" for level three students in the IT department on 2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Supervision and organization of the “STEP Competition for technical reading and coding” on 2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a workshop titled "Time Management" for students in the Faculty of Computer Science and IT on 2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a workshop titled "Closing the cycle of quality in academic programs" on 03-Sept-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Presented a workshop titled "Program accreditation standards and achieving their requirements" on 09-Oct-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Participating in the workshop for evaluating the annual reports of the programs and their key performance indicators on 31-Oct-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Supervision and organization of the “STEP Competition for technical reading and coding” on 05-March-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Supervision and organization of the “STEP Competition for technical reading and coding” on 29-Nov-2020 for university students at Al-Baha University, Kingdom of Saudi Arabia.

- Presented a workshop titled "Cyber Security Basics" for students in the Faculty of Computer Science and IT on 09-March-2021 at Al-Baha University, Kingdom of Saudi Arabia.
- Quality consultant from 2019 till now at the Deanship of Quality and Academic Accreditation, Al-Baha University, Kingdom of Saudi Arabia.

PROFESSIONAL DEVELOPMENT

- Certificate of training for satisfactory completion of “Basics of the e-learning management system “Blackboard”” From E-learning Deanship on 25-Oct-2017 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Self-evaluation of the academic program and its development” From Deanship of Academic Development on 18-April-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Programs and courses’ specification according to the forms of the National Center for Academic Accreditation and Evaluation” From Deanship of Academic Development on 19-April-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Formulating and assessment of learning outcomes for courses and programs” From Deanship of Academic Development on 19-April-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Surveys and data analysis for continuous improvement” From Deanship of Academic Development on 09-May-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Analysis of student results and periodic reports for courses and programs” From Deanship of Academic Development on 22-May-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “The teaching and learning standard of the accreditation center and how to meet its requirements” From Deanship of Academic Development on 29-May-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Mission, Objectives and Learning Outcomes - Practical Cases” From Deanship of Academic Development on 30-May-2018 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Assessment of Learning outcomes” From Deanship of Academic Development on (20-21)-March-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Quality of Academic Programs” From Department of Faculty's Skills Development on May-2019 (4 days) at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Using rubrics to evaluate students' work” on 28-Oct-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “How to use ENDNOTE” on 06-Nov-2019 at Al-Baha University, Kingdom of Saudi Arabia.

- Certificate of training for satisfactory completion of “Analyzing data and questionnaires and using their results to ensure quality and continuous improvement” From NCAAA on (26-27)-Nov-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Preparing a self-study report for the program” From NCAAA on (22-23)-Dec-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Assessment of Learning outcomes” From NCAAA on (25-26)-Dec-2019 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Quality requirements for student guidance and counselling” on 19-Oct-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Building and using Rubrics” on 26-Oct-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of e-training course “How to search in Springer/Nature Databases” on 04-Nov-2020 From Saudi Digital Library, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Modern teaching methods and systems” on 29-Nov-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “The duties of the student and faculty member in academic advising” on 06-Dec-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of “Publishing scientific research in international journals ISI and Scopus” on 07-Dec-2020 at Al-Baha University, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of e-training course “How to use Refworks for references management and organization” on 23-Feb-2021 From Saudi Digital Library, Kingdom of Saudi Arabia.
- Attended the International virtual conference on Training in Universities titled “Quality of Training in View of Recent Trends” which was organized by the Deanship of Quality and Development at University of Hail, Kingdom of Saudi Arabia, on the 22-23 March 2021.
- Attended the virtual training course titled “Assessment of E-Learning Activities” which was held in Distance Learning: Future Expectations and Development Opportunities Forum, Kingdom of Saudi Arabia, on Monday 12 April 2021, from 2 PM to 4 PM.
- Certificate of training for satisfactory completion of e-training course “Mendeley Reference Management Easy Storing & Citation” on 03-Oct-2021 From Saudi Digital Library, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of e-training course “An introduction to the ProQuest Databases and how to benefit from them in studies and research” on 24-Oct-2021 From Saudi Digital Library, Kingdom of Saudi Arabia.

- Certificate of training for satisfactory completion of e-training course “Web of Science Training - Al Baha University” on 26-Oct-2021 From Saudi Digital Library, Kingdom of Saudi Arabia.
- Certificate of training for satisfactory completion of e-training course “Navigate Taylor and Francis Author Service” on 02-Nov-2021 From Saudi Digital Library, Kingdom of Saudi Arabia.
- Attended the two-day online symposium on “High Impact Educational Practices” which was organized by King Fahd University of Petroleum & Minerals Dhahran, Kingdom of Saudi Arabia, on the 15-16 February 2022.
- Attended the two-day online training on “Online Quizzes and Digital Question Banks” which was organized by Faculty and Leadership Development Center, Helwan University, Egypt, on the 19-20 June 2022.
- Attended the two-day online training on “The use of technology in teaching” which was organized by Faculty and Leadership Development Center, Helwan University, Egypt, on the 26-27 June 2022.
- Attended the IEEE Authorship and Open Access Symposium titled “Tips and Best Practices to Get Published from IEEE Editors” which was organized by IEEE, on the 28 September 2022.
- Attended the two-day online training on “Quality standards in the teaching process” which was organized by Faculty and Leadership Development Center, Helwan University, Egypt, on the 21-22 February 2023.
- Certificate of training for satisfactory completion of “Academic Quality Practitioner” From The Education and Training Evaluation Commission, Represented by the General Administration of Training on (14-17)-May-2023, Kingdom of Saudi Arabia.

MEMBERSHIP OF PROFESSIONAL SOCIETIES

None

REFERENCES

1- Prof. El Sayed M. Saad, Department of Computer and systems Engineering, Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt.

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2- Prof. Shahira Mahmoud Habash, Department of Computer and systems Engineering, Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt.

Email: shma_16545@yahoo.com , Shahira_heikal@h-eng.helwan.edu.eg

3- Prof. Medhat Awadalla, Department of Computer and systems Engineering, Faculty of Engineering at Helwan, Helwan University, Cairo, Egypt.

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- 4- Prof. Rahmat Budiarto, Department of Engineering and Computer Science, College of Computer Science and Information Technology, Al-Baha University, Al-Baha, Saudi Arabia.

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- 5- Assoc. Prof. Saad Alqithami, Department of Engineering and Computer Science, College of Computer Science and Information Technology, Al-Baha University, Al-Baha, Saudi Arabia.

Email: salqithami@bu.edu.sa

- 6- Dr. Abdulkareem Alzahrani, Department of Engineering and Computer Science, College of Computer Science and Information Technology, Al-Baha University, Al-Baha, Saudi Arabia.

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