

CURRICULUM VITAE

PERSONAL INFORMATION

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Department Software Engineering
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EDUCATION

Ph.D. Computer Science (Software Engineering) – (With Merit -2009)
Faculty of Computer Science & Information Systems, University of Technology (UTM), Malaysia

Thesis Title: *“The Impact of Use Case Format on the Understanding of System Requirements by Novice and High Knowledge Users”*

M.Sc. Computer-Based Information Systems (CIS)
School of Computing, University of Sunderland, Sunderland, UK

Thesis Title: *“Computer Based Administration System for the 'PISO' Business Unit of University of Sunderland”*

B.Sc. (Hons.) Electrical Engineering
School of Electrical Engineering, University of Technology, Iraq

EMPLOYMENT

| From | To | Institution | Position Held |
|-------------|-----------|---|------------------------------------|
| 2011 | Now | University Malaysia Pahang (UMP), Malaysia | Senior Lecturer |
| 2009 | 2011 | Swinburne University of Technology, Australia (Malaysia Campus) | Lecturer |
| 2006 | 2009 | University of Technology Malaysia (UTM), Malaysia | Assistant Teaching and PhD Student |
| 2004 | 2005 | University of Sharjah, United Arab Emirates (UAE) | Lecturer |
| 1999 | 2004 | Ajman University of Science & Technology, (UAE) | Lecturer |

TEACHING

| From | To | Undergraduate Courses |
|-------------|-----------|---|
| 2011 | Now | Formal Methods in Software Engineering, Human Computer Interaction (HCI), Computer Architecture and Organization, Computer Ethics and Policies, OO Analysis and Design, Software Testing, Introduction to Software Engineering, Software Configuration Management, Software Quality Assurance, Project Management |
| 2009 | 2011 | Business Information Systems Analysis, Business Process Modeling (BPM), Requirements Analysis and Modeling, DBMS, Systems Acquisition and Implementation Management, ICT Business Environment, Software Usability, Office Operations and Procedures, Introduction to Information Technology, Desktop Publishing, Structured Programming Languages |
| 2006 | 2008 | Digital Logic Design |
| 2004 | 2005 | Computer Application, Web Design, Visual Basic, Internet Technologies |
| 1999 | 2004 | Digital Logic Design, Object Oriented Programming in C++, Management Information Systems, Introduction to Computer, Database Design, Systems Analysis & Design |
| 1995 | 1998 | DOS Operating System, Programming in Pascal, Programming in C, Access for Applications, Programming using dbaseIII, dbaseIV, MySQL, Foxpro2 |

Postgraduate (Master Courses)

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| 2012 | 2016 | Software Process Improvement & Control, Research Methodology, Software Configuration Management. |
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Other Teaching Activities

Offered a number of trainings and tutorials to students on topics such as:

- Writing journal/conference paper
- Windows environment, Software tools (MS Office), Adobe Photoshop, Web design
- Circuits Analysis, Programming using C++
- Application Building using MS Access, MS office applications, AutoCAD

Postgraduate Supervision

PhD Students

- Maysoon Mohammed Modeling Multi-Threads Operating System Using Agent Based and Discrete Event Simulation
- Haneen Abdul Wahab Natural Language Processing for Medical Diagnosis in Intelligent Health Care Systems

Master Students

- Hamayoon Ghafory Software Requirements Inspection Using UML Models: An Experimental Study
- Shahwali Shahidi Investigating the Importance of Customer Satisfaction in Requirements Elicitation
- Mohammad Amirul Bin Sukemi An Empirical Comparison of Software Requirements Prioritization Methods
- Served as evaluator of a number of pre viva PhD and viva M.Sc. theses and projects.
- Served as evaluator of a number of Master and PhD proposals and progress reports

Honors

- Receiver of RP Talent (Resedence in Malaysia for highly qualified academics)
- Best Research team (AIBIL), UTM2006 Award, University Technology Malaysia (UTM).
- One of the 'Top 5 Master Courses Lecturers among UMP' in 2013/2014
- Gold Medal, CITREX2016 exhibition, UMP, Malaysia
- Bronz Medal CITREX2016 exhibition, UMP, Malaysia

Research Grants

- RDU grant (UMP) No. 130356 , Project leader
Title: Empirical Evaluation of the Effectiveness of Software Requirements Prioritization Methods
- RDU grant (UMP), member, Project leader Prof. Vitaliy Mezhuhev
Title: Development of TLA Models of Fault-Tolerant Cyber-Physical Systems

Professional Membership

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| Member | IEEE |
| Member | IEEE Communications Society |
| Member | IEEE Big Data Community |
| Senior member | Int. Association of Computer Science and Information Technology (IACSIT) |
| Member | Computer Science Teachers Association CSTA (ACM) |
| Member | Australian Academy of Business Leadership (AABL) |
| Member | Society of Digital Information and Wireless Communication, (SDIWC), USA |

RESEARCH INTERESTS

- Empirical Software Engineering
- Requirements Engineering
- Software Quality Assurance Techniques
- e-Health Care Systems
- Teaching & Learning in Higher Education

UNIVERSITY ADMINISTRATION AND COMMITTEES

Served in many department committees, some are:

- Industrial Collaboration (UMP)
- Research, Commercialization & Publication (UMP)
- Software Engineering Research Group 'SERG' (UMP)
- Curriculum Design (UMP)
- Research Group (Swin)
- Academic Promotions (Swin)
- panel deals with Quality Assurance (Swin)
- Faculty Examinations Committee (Univ. of Technology/Iraq)
- Student-Staff Liaison and Student Society (AUST)
- General Administration of Engineering Facultys' Laboratories (AUST)

Professional Service

Worked as member of technical, organizing committee, editorial board and reviewer of a number of International Conferences and Journals. Some of them 2013-2016 are listed below.

Keynote Speaker

- International Conference on Soft Engineering and Information Management (ICSIM 2016), Kuala Lumpur, Malaysia, Feb 2-3.
- 7th International Conference on Software Technology and Engineering (ICSTE 2015), 19- 20 Sep 2015, Hongkong.

Member -- Advisory Committee Chair

- International Conference on Soft Engineering and Information Management (ICSIM 2016), Kuala Lumpur, Malaysia, Feb 2-3.

Member -- Program Chair

- 7th International Conference on Software Technology and Engineering (ICSTE 2015), 19- 20 Sep 2015, Hongkong.

Member – Program Committee

- International Conference on Communication Systems and Computing application Science (CSCAS 2016), 19-20 March, South Korea

Member -- Organizing Committee

- Annual Business and Social Science Research Conference 2016, Bangkok, Thailand, 12-13 December 2016 (organized by AABL).
- 3rd European Conference on Social Media (ECSM 2016), EM Normandie, (ISI indexing), Caen, France, 12-13 July 2016.
- International Business and Social Science Research Conference (BIBSRC 2016), 22-24 April, Bali, Indonesia.2016.
- 7th European Conference on Information Management & Evaluation (ECIME'13), Sopot, Poland, 12-13 SEP 2013.

Member – Technical Committee

- IEEE International Conference on Management Engineering, Software Engineering and Service Sciences (ICMSS 2017), Jan 14-16, 2017, Wuhan, China.
- The 16th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET17), September 26~28, 2017, Kitakyushu city, Japan, (Springer)
- 4th European Conference on Social Media (ECSM 2017), July 3-4, 2017, Vilnius,Lithuania
- 3rd International Conference on Cloud Security Management (ICCSM 2015), University of Washington – Tacoma, Washington, USA, 22-23 OCT 2015.
- 9th European Conference on IS Management and Evaluation (ECIME2015), Bristol, UK, 21-22 SEP 2015, (ISI indexed).

- 5th International Conference on Information Management and Evaluation (ICIME2015), China, 28-29 May 2015, (ISI indexed).
- 2nd European Conference on Social Media (ECSM 2015), Portugal, 9-10 JUL 2015, (ISI indexing).
- European Conference on Social Media (ECSM 2014), Brighton, UK, 10-11 JUL 2014 (ISI indexed and SCOPUS).
- International Conference on Analytics Driven Solutions (ICAS 2014), Ottawa, Canada, 29-30 SEP 2014, (ISI indexed and SCOPUS).
- International Conference on Software Technology and Engineering (ICSTE 2014), Paris, France, 17-18.
- 13th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET2014), Malaysia, 22-24 Sep, (Springer Verlag).
- International Conference on Cloud Security Management (ICCSM 2013), University of Washington, Seattle, USA, 17-18 OCT 2013.
- 5th International Conference on Software Technology and Engineering (ICSTE'13), Brunei, Drussalam, 28-29 SEP 2013.
- International Conference on Software Engineering and Computer science (ICSECS'13), 20-22 AUG 2013, Pahang, Malaysia.

Editor in Chief – Faculty of Computer Systems & Software Engineering (UMP) Bulliten.

Member -- Editorial Board

- E- book (*New Trends in Software Engineering*), published by GS Publishers, USA.
- Athens Journal of Technology & Engineering, ISSN 2241-8237, Greece.
- International Journal of Computer Science Engineering and Information Technology Research (IJCSEITR), ISSN 2249-6831.
- Editorial board member and reviewer of Australasian Journal of Business, Social Science and Information Technology (AJBSSIT).
- International Journal of Computer Engineering and Futuristic Technology- A D Publication
- **Editorial Review Board** member of Journal of Global Information Management (ISSN: 1062-7375) (*Indexed by Thomson Reuters & Scopus*)
- **Reviewer** Malaysian Journal of Computer Science (ISSN 0127-9084)
- **Reviewer** International Journal of Software Engineering and Computer Science (ISSN 2289- 8522)
- **Member of the Reviewing Committee** – evaluating research projects - Al Qassim University, Saudi Arabia (recently).

PUBLICATIONS

- Balsam A. J. Mustafa (2017), Metamodeling in Systems Development. IEEE Transactions on Software Engineering, (under review).
- Balsam A. J. Mustafa (2016). *8th International Conference on Education and New Learning Technologies (EDULEARN2016)*, Barcelona (Spain), 4-6 July, 2016, (ISI indexed).
- Balsam A. J. Mustafa (2016). An Empirical Comparison of the Effectiveness, and Efficiency of Software Requirements Prioritization Methods. IEEE Transactions on Software Engineering, (under review).
- Maysoon A. Muhammed, Mazlina Abdul Majid, Balsam A. Mustafa (2016). Multi-queue CPU Process Prioritization using a Dynamic Quantum Time Algorithm Compared with Varying Time Quantum and Round-Robin Algorithms. *International Journal of Computer Applications (IJCA)* 134(7), pp 31-37.
- Balsam A. Mustafa (2016). Software Quality Control: An Empirical Study of Using Inspection Technique to Assess the Quality of Software Requirements Specification, *Journal IEEE Transactions on Software Engineering*, (ISI indexed) , under review.
- Balsam A. Mustafa (2015). Influence of Developing Professional Communication on the Success of Postgraduate Research Supervisory (Invited paper). *14th International Conference on EDUCATION and EDUCATIONAL TECHNOLOGY (EDU '15)*, Malaysia, April 23-25, pp 69-73, (ISI & SCOPUS indexed).
- Maysoon A. Mohammed, MA Majid , Balsam A. Mustafa (2015) . A proposed Priority Dynamic Quantum Time Algorithm to Enhance Varying Time Quantum Round Robin, *International Journal Of Computer Applications In Technology (IJCAT)*. (In press)
- Maysoon A. Muhammed, Mazlina Abdul Majid, Balsam A. Mustafa (2015). CPU Burst Processes Prioritization Using Dynamic Quantum Time Algorithm: A Comparison with Varying Time Quantum and Round Robin Algorithms. *International Journal of Electrical and Computer Sciences (IJECS)*, 15(6), pp 1-12. (SCOPUS Indexed).
- A. Noraziah, Tutut Herawanb, Zailani Abdullah, Balsam A. Mustafa, Mohammed Adam Fakharaldien (2015). Fault Tolerance Impact on Near Field Communication for Data Storage of Mobile Commerce Technology in Cloud Computing, *2nd International Conference on Data Engineering (DaEng-2015)*, Lecture Notes in Electrical Engineering (LNEE) by Springer-Verlag, Bali Indonesia, 25-26 April.
- Maysoon A. Muhammed, Mazlina Abdul Majid, Balsam A. Mustafa, Rana Ghany (2015). Queueing Theory Study of Round Robin Versus Priority Dynamic Quantum Time Round Robin Scheduling Algorithms, *International conference on Software Engineering and Computer Systems (ICSECS 2015)*, Malaysia, 19-21 Aug (IEEE Xplore publication).

- Maysoon A. Muhammed, Mazlina Abdul Majid, Balsam A. Mustafa (2015). CPU Thread Prioritization Using Dynamic Quantum Time Round-Robin Algorithm. *Malaysian Technical Universities Conference on Engineering and Technology (MUSSET15')*, 11-13 OCT, Malaysia. (SCOPUS Indexed).
- Mustafa, B. A. (2014). Classifying Software Requirements Using Kano's Model to Optimize Customer Satisfaction, *13th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET2014)*, Malaysia, 22-24 Sep, pp 271-277, (SCOPUS Indexed) (Springer Verlag).
- Mustafa, B.A. , Noraziah, A. , Abdul Majid, M. (2014). Feedback in Postgraduate Supervisory Communication, *Turkish Online Journal of Quality in Higher Education (TOJQIH)*, 1(3), pp 12-15.
- Alamri, H., Mustafa, B. A. (2014). Software Engineering Challenges in Multi-Platform Mobile Application Development, *International Conference on Internet Services Technology and Information Engineering (ISTIE 2014)*, Bali, Indonesia, 31May – 1 June, pp 345-349, (SCOPUS Indexed & Elsevier Bibliographic DB).
- Mustafa, B. A., Zainuddin, A. (2014). An Experimental Design to Compare Software Requirements Prioritization Techniques, *IEEE Conference on Computational Science & Technology (ICCST2014)*, Malaysia, 27-29 Aug, ISBN: 978-1-4799-3241-2, IEEE Xplore digital library publication.
- Hashim A., Abdul Majid, M., Mustafa, B. A. (2013). Legibility of Web Page on Full High Definition Display. *2nd IEEE Conference on Advanced Computer Science Applications and Technologies (ACSAT2013)*, Malaysia, 22-24 Dec, IEEE Xplore digital library publication.
- Mustafa, B.A. , Noraziah, A. , Abdul Majid, M. (2013). Feedback in Postgraduate Supervisory Communication: An Insight from Educators. *Proceeding of International Conference on Quality in Higher Education (ICQH2013)*, Turkey, 12 -14 Dec, pp 312-318.
- Mustafa, B., Hamayoon, G. (2013). Investigating the Inspection Effectiveness of Software Requirements Specification with UML Diagrams. *International Journal of Emerging Trends in Computing and Information Sciences*, ISSN 2079-8407, 4(11), pp 840-843.
- Hui, C., Mustafa, B. A. (2012). Using Augmented Reality to Enhance the Conventional Gamebook. *International Journal of Information Technology and Business Management*, ISSN: 2304-0777, 7(1), pp 71-78.
- Mustafa, B. (2011). Using Structured Analysis and Design Techniques for Effective Development of Information Systems. *International Journal of Information Systems*, ISSN: 2229-5429, 2(2), pp 58-65.

- Mustafa, B. A. (2010). An Experimental Comparison of Use Case Models Understanding by Novice and High Knowledge Users. *9th International Conference on Software Methodologies, Tools, and Techniques (SoMeT_10)*, Yokohama, Japan, 29 Sep -1 Oct 2010, pp 182-199, (SCOPUS Indexed) (Springer).
- Mustafa, B. A. (2010). Comparing the Effect of Use Case Format on End User Understanding of System Requirements. *Journal of Information Technology Research (JITR)*, ISSN: 1938-7857, 3(4), pp 1-20, (SCOPUS Indexed)
- Mustafa, B., Deris, S. A.(2009). How Prior Knowledge Affects User's Understanding of System Requirements? *Proceedings of the International Conference on Software Science and Engineering (ICSSE 2009)*, Penang, Malaysia, 25-27 Feb. 2009, pp18-26.
- Mustafa, B.A. , Deris, S. , Arisholm, E. (2008). The Impact of Use Case Format on End Users' Understanding of System Requirements. *Technical Report*, University Technology Malaysia (UTM), on line at: http://tahan.sps.utm.my:8080/intakeusertracking/technical_report.pdf
- Mustafa, B. (2006). Conceptual Modeling: Present Research and Future Opportunities. *Proceedings of the 2nd Post Graduate Annual Research Seminar (PARS06)*, UTM, Skudai, Malaysia.

Referees

Dr. Mohamad Fadli, Zolkipli, Deputy Dean (Academic Affairs), Faculty of Computer Systems and Software Engineering, University Malaysia Pahang, Lebu Raya Tun Razq, 26300 Gambang, Kuantan, Pahang Email: fadli@ump.edu.my.

Dr. Rohani Abu Bakar, Head of Software Department, Faculty of Computer Systems and Software Engineering, University Malaysia Pahang, Lebu Raya Tun Razq, 26300 Gambang, Kuantan, Pahang Email: rohani@ump.edu.my.

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