# PROF. MOHAMMAD YOUNES AZZEH

## CURRICULUM VITAE

(Last Updated. Sep 2021)


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**PERSONAL DATA** **Born**: July 5, 1978; **Place**: Amman Jordan **Nationality**: Jordanian

**EDUCATION**

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|---|---|
| **B. S.c.** | Computer Engineering, Applied Science University, **Amman, Jordan**, 2001. |
| **M. S.** | Software Engineering, University of the West of England, **Bristol, UK**, 2003. |
| **Ph. D.** | **Computing**, University of Bradford, **Bradford, UK**, 2010. |

**TITLES OF THESES**

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|---|---|
| **M.S.** | Next Generation Graphical User Interface. |
| **Ph. D.** | Analogy Based Software project Effort Estimation. |

**JOB HISTORY**

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| 2021- present | Full Professor**,** Princess Sumaya University for Technology / Amman /Jordan. |
| 2020- 2021 | Full Professor**,** Applied Science University / Amman /Jordan. |
| 2015-2020 | Associate Prof.**,** Applied Science University / Amman /Jordan. |
| 2010- 2015 **:** | Assistant Prof.**,** Applied Science University / Amman /Jordan. |
| 2010: | Part time lecturer. University of Bradford, Bradford, UK. |
| 2007-2010 : | Teaching Assistant. University of Bradford, Bradford, UK. |
| 2003-2007: | Instructor, Applied Science University / Amman /Jordan. |
| 2002 : | Software developer, MOTOROLA, Swendon, UK. |
| 2001 : | Hardware Design Engineer Telematics, Jordan |

**TEACHING EXPERIENCE** **Undergraduate Courses:** Java I & II, Machine Learning, Android**,** Cross platform mobile development using Xamarin**.** Software Engineering, Project Management, Software Testing and quality assurance, Software design and architecture, Data Structure, Database systems, Real time systems.

**Postgraduate Courses**: Machine Learning, Data Mining. Software Engineering, Digital Image Processing, Software Development Group Project.

**RESEARCH INTERESTS** Data Science, Machine Learning, Data Mining, Empirical Software Engineering, Search Based Software Engineering, Fuzzy Logic, AI and Mining Software repository.

## SCHOLARSHIPS, HONORS AND AWARDS

PhD Scholarship, Applied Science University (over 100,000 $)

## MEMBERSHIP OF SCIENTIFIC AND PROFESSIONAL SOCIETIES

- Association of Jordanian Engineers, Member**.**
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## MEMBERSHIP OF UNIVERSITY COMMITTES (Services)

- Member of the Faculty committee for ABET accreditation, 2018. Faculty of Information Technology, Applied Science University.
- Member of the Faculty committee, Student Development, 2015 & 2016. Faculty of Information Technology, Applied Science University.

- Member of the Faculty committee, Graduation Projects, 2015 & 2016. Faculty of Information Technology, Applied Science University.
- Member of the Faculty committee, Contests and Conferences, 2015 & 2016. Faculty of Information Technology, Applied Science University.
- Head of Computer Skills Committee, 2014-2015, Faculty of Information Technology, Applied Science University.
- Member of the Faculty committee, Computer Skills, 2013-2014, Faculty of Information Technology, Applied Science University.
- Head of the Faculty Committee, Field Training, 2012-2013, Faculty of Information Technology, Applied Science University.
- Member of the Faculty committee, Scientific Research, 2010, Faculty of Information Technology, Applied Science University.
- Member of the Faculty committee, Study Planning, 2010, Faculty of Information Technology, Applied Science University.

## OTHER ACTIVITES

- Chair and organizer of the special session on Machine Learning for Predictive Models for Engineering Applications, part of IEEE ICMLA 2018, Florida, USA.
- Conference Chair of international Conference on Computer Science and Information Technology 2018, technically co-sponsored from IEEE computer Society, Jordan.
- Chair and organizer of the special session on Machine Learning for Predictive Models for Engineering Applications, part of IEEE ICMLA 2017, Mexico.
- Chair and organizer of the special session on Machine Learning for Predictive Models for Engineering Applications, part of IEEE ICMLA 2016, CA, USA.
- Conference Chair of international Conference on Computer Science and Information Technology 2016, technically co-sponsored from IEEE computer Society, Jordan.
- Chair and organizer of the 2nd Workshop on Machine Learning for Predictive Models for Engineering Applications, part of IEEE ICMLA 2015, Miami, USA.
- Guest Editor of Journal of Neural Computing & Applications, Springer, 2015.
- Chair and organizer of the 2nd Workshop on Machine Learning for Predictive Models, part of IEEE ICMLA 2014, Detroit, USA.
- International Liaison Co-Chair of UK Workshop on Computational intelligence UKCI 2014.
- Chair and organizer of Special Session on Machine Learning for Predictive Models, part of ICMLA 2013, Miami, USA.
- Chair and organizer of Special Session on Computational Intelligence Applications for Software Engineering (CIASE 2013), part of ICCIT 2013, Lebanon.
- Publicity Chari of 6th International Conference on Computer Science and Information Technology. CSIT 2014, Amman, Jordan
- Reviewer for Journal of Information & Software Technology (Elsevier).
- Reviewer for Journal of IET Software.
- Reviewer for Journal of Systems & Software (Elsevier).
- Reviewer for Journal of Neural Computing & Applications (Springer).
- Member of International committee in International Workshop on Computational Intelligence for Multimedia Visual Information Processing (CIMVIP'2010).

## PROFESSIONAL AND SCIENTIFIC MEETINGS (CONFERENCES, CONVENTIONS, SYMPOSIA AND TRAINING COURSES)

1. The 19th IEEE International Conference on Machine Learning and Applications, California, USA, 2021.
2. The 18th IEEE International Conference on Machine Learning and Applications, Miami, USA, 2019.
3. The 17th IEEE International Conference on Machine Learning and Applications, Miami, USA, 2018.
4. The 8th International Conference on Computer Science and Information Technology, Amman, 2018.
5. The 16th IEEE International Conference on Machine Learning and Applications, Orlando, USA, 2017.

6. The 15th IEEE International Conference on Machine Learning and Applications, USA, 2016.
7. The 7th International Conference on Computer Science and Information Technology, Amman, 2016
8. The 14th IEEE International Conference on Machine Learning and Applications, Miami, USA, 2015.
9. The 13th IEEE International Conference On Machine Learning And Applications, Detroit, USA,2014
10. The 12th International Conference On Machine Learning And Applications, Miami, USA,2013
11. The 5th International Conference On Computer Science And Information Technology, Amman, 2013
12. The 11th International Conference On Machine Learning And Applications, ICMLA, USA, 2012
13. The 7th International Conference On Software Engineering Advances, Lisbon, Portugal 2012
14. The 7th International Conference On Software Predictor Models, Banff, Canada, 2011.
15. The 11th IEEE International Conference On Computer And Information Technology, 2011
16. The 7th International Conference On Software Predictor Models, Canada,2011
17. 15th International Conference Knowledge-Based And Intelligent Information And Engineering Systems.
18. The 10th IEEE International Conference On Computer And Information Technology, 2010
19. The 3rd International Conference On Software And Data Technology ICSOFT (SE/MUSE/GSDCA), 2008
20. The International Workshop On Software Predictors PROMISE'08 (Part Of ICSE'08), Leipzig, Germany, 2008.
21. The 5th International Conference On Software Predictor Models, Co-located with ICSE'31Canada, 2009
22. 8th Informatics Workshop, University of Bradford, 2007.
23. 9th Informatics Workshop, University of Bradford 2008.

**PHD Examination**

- Reputation Models Based on Rating Data and Applications in Recommender Systems, Queens University of Technology, and Australia.

**MASTER Examination**

- Code Slicing for Maintenance Projects, Zaytoneh University.
- Centralized Smart Monitoring System for Energy Consumption, Applied Science Private University.

## PUBLICATIONS

**BOOKS**

1. M. Azzeh. Software Project Effort Estimation by Analogy: Modelling uncertainty in Software Cost Estimation, 2011, LAP Lambert Academic Publishing.

**PAPERS** (in descending chronological order)

1. Elsheikh, Yousef; Alqasrawi, Yousef; Azzeh, Mohammad; ,On obtaining a stable vote ranking methodology for implementing e-government strategies,Journal of King Saud University-Computer and Information Sciences,2020,Elsevier
2. Azzeh, Mohammad; Nassif, Ali Bou; Attili, Imtinan;,Predicting Software Effort from Use Case Points: A Systematic Review,Science of Computer Programming,204,,102596,2020,Elsevier
3. Abu-Shawish, Israa; Ghunaim, Sara; Azzeh, Mohammad; Nassif, Ali Bou,Metaheuristic Techniques in Optimizing Traffic Control Lights: A Systematic Review,2020,
4. Azzeh, Mohammad; Nassif, Ali Bou; Martín, Cuauhtémoc López,Empirical analysis on productivity prediction and locality for use case points method,Software Quality Journal,29,2,309-336,2021,Springer US
5. Alqwadri, Ahmad; Azzeh, Mohammad; Almasalha, Fadi,Application of Machine Learning for Online Reputation Systems,International Journal of Automation and Computing,18,,1-11,2021,International Journal of Automation and Computing
6. AL-Oudat, Mohammad; Azzeh, Mohammad; Qattous, Hazem; Migdady, Hazem; AL-Munaizel, Tareq,Automatic Intrahepatic Biliary Segmentation Based Image Processing,Advances in Mechanics,9,3,472–488,2021,
7. Cuauhtémoc López-Martín, Yenny Villuendas-Rey, Mohammad Azzeh, Ali Bou-Nassif, Shadi Banitaan, Transformed k-nearest neighborhood output distance minimization for predicting the Defect Density of Software Projects, Journal of Systems and Software, 110592,2020,Elsevier

8. Yousef Elsheikh, Yousef Alqasrawi, Mohammad Azzeh, On obtaining a stable vote ranking methodology for implementing e-government strategies, Journal of King Saud University-Computer and Information Sciences,2020,Elsevier
9. Mohammad Azzeh, Ali Bou Nassif, Imtinan Attili, Predicting Software Effort from Use Case Points: A Systematic Review, Science of Computer Programming, vol. 204, 2020, Elsevier
10. Ali Bou Nassif, Mohammad Azzeh, Ali Idri, Alain Abran; Software Development Effort Estimation Using Regression Fuzzy Models, Computational Intelligence and Neuroscience, vol. 2019, Article ID 8367214, 17 pages, 2019. **[ISI]**
11. Ali Bou Nassif, Ismail Shahin, Imtinan Attili, Mohammad Azzeh, Khaled Shaalan, Speech Recognition Using Deep Neural Networks: A Systematic Review, , IEEE Access, vol. 7 (1), pp. 19143-19165, 2019, IEEE. **[ISI]**
12. Mohammad Azzeh, Ali Bou Nassif, Shadi Banitaan, Cuauhtémoc López-Martín, Ensemble of Learning Project Productivity in Software Effort Based on Use Case Points, 17th IEEE International Conference on Machine Learning and Applications (ICMLA), pp. 1427-1431,2018, IEEE.
13. Cuauhtémoc López-Martín, Mohammad Azzeh, Ali Bou-Nassif, Shadi Banitaan, Upsilon-SVR Polynomial Kernel for Predicting the Defect Density in New Software Projects, 17th IEEE International Conference on Machine Learning and Applications (ICMLA), pp. 1377-1382,2018, IEEE.
14. Ali Bou Nassif, Omar, Mahdi, Qassim Nasir, Manar Talib, Mohammad Azzeh, Machine Learning Classifications of Coronary Artery Disease, , 2018.
15. Mohammad Azzeh; Ali Bou Nassif; Project productivity evaluation in early software effort estimation, Journal of Software: Evolution and Process,30,12, e2110,2018. **[ISI]**
16. Mohammad Azzeh, Mohammad Hijjawi, Ahmad M. Altamimi; Online Reputation Model Using Multiple Quality Factors, International Journal on Advanced Science, Engineering and Information Technology,8,6,2612-2619,2018. **[ISI]**
17. Mohammad Azzeh, Ali Bou Nassif, Shadi Banitaan ; Comparative analysis of soft computing techniques for predicting software effort based use case points, Journal of IET Software 12(1), pp. 19-29, 2018. **[ISI]**
18. Mohammad Azzeh, Ali Bou Nassif; Analyzing the relationship between project productivity and environment factors in the use case points method, Journal of Software: Evolution and Process 29(9), 1882, 2017.
19. Ali Bou Nassif, Mohammad Azzeh, Shadi Banitaan, Robust Rank Aggregation method for Case-Base effort estimation, Canadian Conference on Electrical and Computer Engineering, 2017.
20. Ahmad Mousa Altamimi and Mohammad Azzeh; Evaluating the Accuracy of Using Cross Datasets to Predict New Local Heart Diseases Cases, Journal of Theoretical & Applied Information Technology, 2017. **[ISI]**
21. Mohammad Azzeh ; Comparative Analysis of Online Rating Systems , International Journal of Advanced Computer Science and Applications, 2017. **[ISI]**
22. Mohammad Azzeh ; Online Reputation Model Using Moving Window, International Journal of Advanced Computer Science and Applications,2017. **[ISI]**
23. M. Azzeh, A. B. Nassif, A Hybrid model for estimating software project effort from Use case Points. Applied Soft Computing , Elsevier,**[2015 ISI impact factor 2.81]**
24. A. B. Nassif, M. Azzeh, L.F. Capretz, D. Ho, Neural Network Models for Software Development Effort Estimation: A Comparative Study, Journal of Neural Computing and Applications, 2015, Springer (In Press) **[2015 ISI impact factor 1.569]**
25. S. Banitaan, A. B. Nassif, M. Azzeh, Class Decomposition using Kmeans and Hierarchical Clustering,14th International Conference on Machine Learning and Applications (ICMLA),2015, IEEE
26. M. Azzeh, A. B. Nassif, S. Banitaan, An Application of Classification and Class Decomposition to Use Case Point Estimation Method, 14th International Conference on Machine Learning and Applications (ICMLA),2015, IEEE
27. M. Azzeh, A. B. Nassif, S. Banitaan, F. Masalha. Pareto Efficient Multi Objective Optimization for Local Tuning of Analogy Based Estimation, Journal of Neural Computing and Applications, 2015, Springer **[2015 ISI impact factor 1.569]**
28. M. Azzeh, A. B. Nassif, L Minku, An Empirical Evaluation of Ensemble Adjustment Methods for Analogy-Based Effort Estimation, Journal of Systems and Software, 2015, Elsevier **[2015 ISI impact factor 1.352]**
29. M. Azzeh, A. B.Nassif , Analogy-based effort estimation: a new method to discover set of analogies from dataset characteristics, Journal of IET Software, Vol. 9,no. 2, pp. 39-50, 2015, IET Digital Library **[2014 ISI impact factor 0.595]**
30. M Azzeh, A. B. Nassif, S. Banitaan, A Better Case Adaptation Method for Case-Based Effort Estimation Using Multi-objective Optimization, 2014 13th International Conference on Machine Learning and Applications (ICMLA), pp. 409 - 414,2014, IEEE

31. M Azzeh, Y Elsheikh, M Alseid, An Optimized Analogy-Based Project Effort Estimation, International Journal of Advanced Computer Science & Applications 5 (4) **[2014 ISI impact factor 1.32]**
32. Yousef Elsheikh, Mohammad Azzeh, What Facilitates the Delivery of Citizen-Centric E-Government Services in Developing Countries: Model Development and Validation Through Structural Equation Modeling, International Journal of Computer Science.
33. M Alseid, M Azzeh, Y El Sheikh, A Comparative Usability Study on the Use of Auditory Icons to Support Virtual Lecturers in E-Learning Interfaces, Journal of Advanced Computer Science & Applications 5 (4) **[2014 ISI impact factor 1.32]**
34. Azzeh, M., Alseid, M., (2013) Value of Ranked Voting Methods for Analogy-Based estimation, Journal of IET Software, (2013) **[2015 ISI impact factor 0.536]**
35. Azzeh, M. (2013) Dataset Quality Assessment: An extension for analogy based effort estimation International Journal of Computer Science & Engineering.
36. Azzeh, M., Nassif, A B. (2013) Fuzzy Model Tree for early Effort Estimation The 12th International Conference On machine Learning and Applications, Miami, USA,2013. IEEEXplore
37. Nassif, A. B., Azzeh, M., Ho, D., Capretz, L. F., (2013). A Comparison Between Decision Trees and Decision Tree Forest Models for Software Effort Estimation, A special session on Computational intelligence Applications in Software engineering- The 3rd international conference on communication and information technology ICCIT, Lebanon, IEEEXplore.
38. Azzeh M., (2013) Software Cost Estimation Based on Use Case Points for Global Software Development. The 5th International Conference on Computer Science and Information Technology CSIT, Jordan. IEEEXplore.
39. Alseid, M., Azzeh, M., Elsheikh, Y., (2013) Employing Auditory Icons to Support Virtual Lecturers in E-Learning Interfaces A Proposed Comparative Usability Study, The 5th International Conference on Computer Science and Information Technology CSIT, Jordan. IEEE.
40. Nassif, Ali Bou; Capretz, Luiz Fernando; Ho, Danny; Azzeh, M. (2012) A Treeboost Model for Software Effort Estimation Based on Use Case Points, 11th International Conference on Machine Learning and Applications (ICMLA), 314-319. IEEE
41. Azzeh, M., Elsheikh, Y. (2012) Learning Best K analogies from Data Distribution for Case-Based Software Effort Estimation, ICSEA 2012, The Seventh International Conference on Software Engineering Advances, 341-347
42. Azzeh, M., **(2012)**, A Replicated Assessment and Comparison of Adaptations Techniques for CBR. Journal of Empirical Software Engineering, Springer. **[2011 ISI impact factor 1.854]**
43. Azzeh, M, **(2011)** Adjusted Case-Based Software Effort Estimation Using Bees Optimization Algorithm. KES (2) 2011: 315-324. Germany, Springer.
44. Azzeh, M **(2011)** Model Tree Based Adaption Strategy for Software Effort Estimation by Analogy. IEEE CIT 2011. Cyprus. IEEEXplore.
45. Azzeh, M (**2011),** Software Effort Estimation based on optimized model tree, 7th international conference on software predictor models. Canada. ACM
46. Azzeh, M., Neagu, D. & Cowling, P., Analogy-Based Software Effort Estimation based on Fuzzy Numbers, Journal of System & Software, Elsevier. **[2011 ISI impact factor 1.35]**
47. Azzeh, M., Cowling, P. & Neagu, D. (2010), Software Stage-Effort Estimation Based on Association Rule Mining and Fuzzy Set Theory, The 10th IEEE international conference on computer and information technology. IEEEXplore
48. Azzeh, M., Neagu, D. & Cowling, P. (2010), *Fuzzy grey relational analysis for software effort estimation*, Journal of Empirical Software Engineering, Springer, Vol. 15, Issue 1, 60-90. **[2010 ISI impact factor 1.776]**
49. Azzeh, M., Neagu, D. & Cowling, P. (2009), Software effort estimation based on weighted fuzzy grey relational analysis, 5th international conference on software predictor models, Co-located with ICSE'31, Article number 8. ACM
50. Azzeh, M., Neagu, D. & Cowling, P. (2008c), Adjusting Analogy Software Effort Estimation Based on Fuzzy Logic. 3rd International conference on software and data technology ICSOFT (SE/MUSE/GSDCA), 127-132.
51. Azzeh, M., Neagu, D. & Cowling, P. (2008b), Software project similarity measurement based on Fuzzy c-Means, In: International Conference on software process, Leipzig, Germany, 123-134. ACM
52. Azzeh, M., Neagu, D. & Cowling, P. (2008a), Fuzzy Feature Subset Selection for Software Effort Estimation, In: International workshop on software predictors PROMISE'08 (part of ICSE'08), Leipzig, Germany, 71-78. ACM
53. Azzeh, M., Neagu, D. & Cowling, P. (2007), An Overview of Web Cost Estimation, proceedings of the 8th Informatics Workshop, University of Bradford, 96-99.

**REFERENCES**

*Dr. Ali Bou Nassif*
*Assistant Professor*
*Department of Computer Engineering*
*University of Sharjah*
*Sharjah*
*UAE*
*anassif@sharjah.ac.ae*
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*Professor*
*Department of Computing*
*University of Bradford*
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*Dr. Shadi Banitaan*
*Assistant Professor*
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