My Resume: Mohammad Subhi Mohammad Al-Batah



Personal Information							
First Name	Mohammad	Date of Birth	03 May	Mailing	Jordan-Irbid-Area of		
			1976	Address	Rosary Sisters		
					Hospital		
Middle	Subhi	Gender	Male	Primary	00962-779080107		
Name				Phone	00962-772582238		
Last Name	Al-Batah	Marital Status	Married	Primary	dralbatah@gmail.com		
				Email	albatah@jadara.edu.jo		
Country of	Jordan	Nationality	Jordan	Current	Full Professor		
Residence				Academic			
				Rank			

Academics Information						
Rank of Promotion Date Country- University						
Full Professor	30/8/2020	Jordan - Jadara University				
Associate Professor	2/9/2014	Jordan - Jadara University				
Assistance Professor	1/10/2009	Jordan - Jadara University				

Educational Background							
Highest Education	Highest Education						
Level	Doctorate's Degree						
Major	Artificial Intelligence						
Name of University	University Science Malaysia (USM), Universiti Sains Malaysia (USM)						
Country	Malaysia						
Title of Thesis	An Intelligent Classification System for Aggregate Based on Image Processing and Neural Network						
Graduation Date	March 2009						
Level	Master's Degree						
Major	Computer and Communication Engineering						
Name of University	Universiti Kebangsaan Malaysia (UKM), National University of Malaysia						
Country	Malaysia						
Title of Project	Performance Analysis and Simulation of IEEE 802.11 Wireless LAN						
Graduation Date	June 2004						
Level	Bachelor's Degree						
Major	Computer Engineering						
Name of University	Philadelphia University						
Country	Jordan						
Graduation Date	April 2001						
Level	Tawjihi						
Major	Scientific stream						
Country	Yarmouk National Boys School, Jordan						

Languages Skills						
Language Name	Speaking	Writing	Reading			
Arabic	Advanced	Advanced	Advanced			
English	Intermediate	Advanced	Advanced			
Malaysian	Intermediate	Intermediate	Intermediate			

	Academic Employment History							
#	University	Country	Position/Department	Rank	Start Date	End Date	Total Experience	
	Jadara University	Jordan	Director of the Center for Leadership and Innovation	Full Professor	Oct. 2022	Until now		
	Jadara University	Jordan	University President Assistant for E-Learning and Strategic Plan	Full Professor	Sep 2020			
1	Jadara University	Jordan	Director of the Center for Academic Development and Quality Assurance and Assistant Dean of Scientific Research	Full Professor	Oct 2018	Sep 2020	2 Years	
2	Jadara University	Jordan	Dean for Faculty of Science and Information Technology	Associate Professor	Sep 2015	Sep 2018	3 Years	
3	Jadara University	Jordan	Head of the Computer Science and Software Engineering Department	Assistance Professor	Sep 2012	Sep 2015	3 Years	
4	Jadara University	Jordan	Lecturer at Computer Science Department	Assistance Professor	Sep 2009	Sep 2012	3 Years	
5	University Science Malaysia	Malaysia	Teaching Assistant, Lab supervisor and Teaching programming languages	PhD Student	Dec 2007	Jan 2009	2 Years	
6	Ministry of Education in Jordan	Jordan	Teaching Computer science at Government Secondary Schools	Teacher	Feb 2002	July 2002	6 Months	

	University Support History							
Lis	List major types of committees I have been involved							
#	Committee name	University	Start Date	End Date	Role	Total years of Experience		
1	E-Learning committee	Jadara University	Oct 2019	Sep 2022	Follow up the E-learning and E-exams	3		
2	Strategic Plan committee	Jadara University	Oct 2019	Sep 2022	development of new academic disciplines and Establishing relations with international universities	3		
3	Accreditation and Quality Assurance Committee	Jadara University	Oct 2015	Sep 2019	Holding workshops to understand local and international quality standards	4		
4	scientific Committee	Jadara University	Oct 2012	Sep 2019	Organizing training workshops and conferences	7		

5	Scientific	Jadara	Oct	Sep	Member of the Board of Scientific	12
	Research and	University	2009	2022	Research and Graduate Studies	
	Graduate					
	Studies					
	Committee					
6	Research	University	Nov	Dec	Developing a project title:	2
	Officer	Science	2006	2008	Automated Intelligent Real-Time	
	committee	Malaysia			System for Aggregate	
		•			Classification	

	Community Service support							
List	List major types of activities I have been involved in supporting the community							
#	Activity	Country	Start Date	End Date	Role	Total years of Experience		
1	Programming and Internet Club	Jordan	Sep 2012	Sep 2022	Supervising programming competitions between universities	10		
2	Student Training Committee	Jordan	Sep 2011	Sep 2016	Supervising students in practical training centers	5		
3	Graduation Projects Committee	Jordan	Sep 2010	Sep 2012	Supervising graduation projects	2		
4	Foreign Students Union	Malaysia	March 2002	May 2004	Organizing activities for foreign students	2		
5	Student Social Committee	Malaysia	2004	2008	Establishing relationships between students from different countries	3		

	Non-Academic Employment History						
List	List my current and previous non-academic jobs starting with most recent						
#	Employer	Country	Start	End	Position/Department	Total years	
			Date	Date		of	
						Experience	
1	Hospital	Malaysia	Feb	Feb	Programmer, Developing Early	2	
	University		2004	2006	Diagnosis System for Cervical		
	Science				Cancer Based on Neural		
	Malaysia				Networks		
2	Mineral and	Malaysia	Feb	Feb	Programmer, Automated	2	
	Material		2005	2007	Intelligent real-time system for		
					aggregate classification		

	Course and Workshop Certificates							
#	Name	Location	Begin Date	End Date				
1	Innovation Management	King Abdullah II Center for Excellence	28/6/2022	30/6/2022				
2	Master Trainers (ToT) within the project "Strengthen national capacities for the development of e-learning in higher education institutions in Jordan	Ministry of Higher Education and Scientific Research and the UNESCO team	4/11/2020	5/01/ 2021				

2	Higher Education Quality Assurance Course, Higher Education Quality Evaluator Certificate	Accreditation and Quality Assurance Commission for Higher Education Institutions, Jordan	10/6/2019	18/9/219
4	 A. Governance and Independence in Higher Education Institutions, European Erasmus plus Program. B. Advanced Training Programme for Directors of Academic Practice Centres in Jordanian Universities C. Quality Assurance for Higher Education, Accreditation and Quality Assurance Commission for Higher Education Institutions. 	Ministry of Higher Education and Scientific Research, British Council.	16/01/2019	08/10/2019
6	Statistical Analysis using SPSS.	Jadara University	17/03/2019	31/07/2019.
3	 A. Applied Higher Education Learning Strategies in the 21st Century. B. Planning, Monitoring and Evaluating Research and Innovation Services for Faculty Development and Quality Assurance Centers at Jordanian Universities. C. Applied Leadership Training for Directors of the Faculty Development and Quality Assurance Centers at Jordanian Universities. 	Ministry of Higher Education and Scientific Research, British Council.	8/10/2018	14/2/2019
5	Modern Teaching Strategies, Mechanism of Research, publication and impact factor (H-Index), Plagiarism checker using Turnitin.	Jadara University	24/11/ 2018	16/04/2019

My Expert Courses

- 1. Application of computer science in medical fields
- 2. Machine Learning
- 3. Artificial Intelligence
- 4. Neural Network
- 5. Expert System
- 6. Image Processing
- 7. Multimedia
- 8. Web Engineering9. Computer Architecture
- 10. Computer Networks
- 11. Software Engineering
- 12. Software Testing
- 13. Computer Analysis
- 14. Logic Design

Some other subjects related to Computer Science, Computer Engineering, and Software Engineering

Research Interests

The current research interests involve Artificial Intelligence, Medical Diagnosis Systems, Machine Learning, Robotics, Deep Learning, Real Time Classification Systems, Image Processing, and Software Engineering (Software Testing).

	Citations							
	Documents by author	Total citations	h-index	URL				
Google Scholar	42	481	13	https://scholar.google.com/citations?hl=en&user=io GAkWcAAAAJ				
Scopus	27	332	11	https://www.scopus.com/authid/detail.uri?authorld= 23093290700				

International visibility /Honours and Awards				
Award Name	Project Name	Country	Date	
El Hassan bin Talal Award for	The Intelligent Medical System for	Higher Council for	March	
Scientific Excellence 2021	Identification and Classification of	Science and	2021	
	Cervical Cancer	Technology Jordan		
Award of Scientific Research	Scopus H-Index	Jadara University,	April	
and Scientific Excellence	•	Jordan	2022	
Invention, Innovation and	Automated Intelligent real-time	Putra World Trade	May	
Industrial Design Technology	system for aggregate	Centre, Kuala	2008	
Exhibition 2008 (I-TEX 2008)	classification	Lumpur, Malaysia		

I hope that my application for employment in your distinguished university will be accepted to complete my scientific research.

	List of Publications			
	Paper	Indexes (2021)	Citations	
1.	Al-Batah M. S., Alzyoud M., Alazaidah R., Toubat M., Alzoubi H., Olaiyat A., (2022) "Early Prediction of Cervical Cancer Using Machine Learning Techniques", Jordanian Journal of Computers and Information Technology (JJCIT), In Press.	Scopus Q2		
2.	Al-Batah M. S., Al-Eideh M. R., (2022) "An improved discreet Jaya optimization algorithm with mutation operator and opposition-based learning to solve the 0.1 knapsack problem", International Journal of Mathematics in Operational Research, In Press.	Scopus Q3		
3.	Alzaidah R. Al-Batah M. S., Ahmad, F. K., Mohsin M, F. M., (2022) "Multi-label Classification Based on Associations", The International Arab Journal of Information Technology (IAJIT), Under Review.	Scopus Q3		
4.	Almomani, Mohammed, Momani, Amer, Bany Abdelnabi, Ahmad, Zaqeba, Ruba, Al-Batah, Mohammad. (2022). Predicting the corrosion rate of tempered medium carbon steel Using artificial neural network. Protection of Metals and Physical Chemistry of Surfaces Journal. June 2022.	Science Citation Index Expanded		
5.	Saleh Ali Alomari, Mowafaq Salem Alzboon, Mohammad Subhi Al-Batah, Belal Zaqaibeh, A novel adaptive schema to facilitates playback switching technique for video delivery in dense LTE cellular heterogeneous network environments, International Journal of Electrical and Computer Engineering (IJECE), Vol. 10, No. 5, October 2020, pp. 5347~5367 ISSN: 2088-8708, DOI: 10.11591/ijece.v10i5.pp5347-5367	Scopus Q2	4	
6.	Al-batah Mohammad Subhi. Ranked Features Selection with MSBRG Algorithm and Rules Classifiers for Cervical Cancer. International Journal of Online and Biomedical Engineering (iJOE). International Association of Online Engineering (IAOE); 2019 Aug 23;15(12):4. Available from: http://dx.doi.org/10.3991/ijoe.v15i12.10803	Scopus Q3 Emerging Sources Citation Index	2	
7.	Al-Batah MS, Zaqaibeh BM, Alomari SA, Alzboon MS. Gene	Scopus Q3	11	

	Microarray Cancer Classification using Correlation Based Feature Selection Algorithm and Rules Classifiers. International Journal of Online and Biomedical Engineering (iJOE). International Association of Online Engineering (IAOE); 2019 May 14; 15(08):62. Available from: http://dx.doi.org/10.3991/ijoe.v15i08.10617	Emerging Sources Citation Index	
8.	Mohammad Subhi Al-Batah, Nouh Alhindawi, Rami Malkawi, Ahmad Al Zuraiqi. Hybrid Technique for Complexity Analysis for Java Code. International Journal of Software Innovation, Volume 7, Issue 3, July-September 2019.	Scopus Q4 Emerging Sources Citation Index	3
9.	Alhindawi NT, Abu Ata B, Obeidat LM, Al-Batah MS, Abu-Ata M. A Topic Modeling Based Approach for Enhancing Corpus Querying. International Journal of Open Source Software and Processes. IGI Global; 2019 Jul;10(3):38–50. Available from: http://dx.doi.org/10.4018/ijossp.2019070103 , ISSN: 1942-3926.	Scopus Q4	0
	Mohammad Subhi Al-Batah, Nouh Alhindawi, Saleh Oqeili, Obaida M. Al-Hazaimeh, Source Code Explorer System to Enhance the Software Maintainability and Scalability, International Journal Of Education And Information Technologies, Volume 13, 2019, Pages: 94-101.	Emerging Sources Citation Index	0
11.	Al-Batah MS. Integrating the Principal Component Analysis with Partial Decision Tree in Microarray Gene Data. IJCSNS International Journal of Computer Science and Network Security; 2019 March; 19(3): 24-29.	Emerging Sources Citation Index	0
12.	Al-Batah MS. Automatic Diagnosis System for Heart Disorder using ESG Peak Recognition with Ranked Features Selection. International journal of circuits, systems and signal processing; 2019; 13:391-398.	Scopus Q4	3
13.	SA Alomari, MS Alzboon, B Zaqaibeh, MS Al-Batah. An Effective Self-Adaptive Policy for Optimal Video Quality over Heterogeneous Mobile Devices and Network Discovery Services. Applied Mathematics and Information Sciences; 2019; 13(3):489-505. Available from: http://dx.doi.org/10.18576/amis/130322, ISSN: 2325-0399.	Scopus Q3	0
14.	Mrayyen S, Al-Batah MS, Alzaqebah M. Investigation of Naive Bayes Combined with Multilayered Perceptron for Arabic Sentiment Analysis and Opinion Mining. International Journal of Mathematical Models and Methods in Applied Sciences; 2018; Volume 12.	Scopus	12
15.	Al-Batah MS, Mrayyen S, Alzaqebah M. Arabic Sentiment Classification using MLP Network Hybrid with Naive Bayes Algorithm. Journal of Computer Science. Science Publications; 2018 Aug 1; 14(8):1104–14. Available from: http://dx.doi.org/10.3844/jcssp.2018.1104.1114	Scopus Q4	16
16.	Alhindawi, Nouh; Saraireh, Ziad; Meqdadi, Omar; Al-Hazaimeh, Obaida M.; Al-Batah, Mohammad Subhi. Revising Program's Internal Documentation for Developers Sustaining. Journal of Theoretical & Applied Information Technology. 9/30/2017, Vol. 95 Issue 18, p4888-4896. 9p. http://www.jatit.org/indexing.php	Scopus Q3	0
17.	MBMS Alzboon, SA Alomari, MS Al-Batah, M Banikhalaf. The Characteristics of The Green Internet of Things and Big Data in Building Safer, Smarter, and Sustainable Cities. International Journal of Engineering & Technology, September 2017, 6 (3), 83-92	Scopus	4

	Al-Mofleh A, Quteishat A, Oraiqat M, Salah W, Qoussouse S, Al-Batah MS. A survey of energy conservation and management options for Malaysia. Energy Sources, Part B: Economics, Planning, and Policy. Informa UK Limited; 2016 Jul 2;11(7):580–6. Available from: http://dx.doi.org/10.1080/15567249.2011.604066	Science Citation Index Expanded Scopus Q2	1
19.	Al-batah Mohammad Subhi, Alkhasawneh MS, Tay LT, Ngah UK, Hj Lateh H, Mat Isa NA. Landslide Occurrence Prediction Using Trainable Cascade Forward Network and Multilayer Perceptron. Mathematical Problems in Engineering. Hindawi Limited; 2015;2015:1–9. Available from: http://dx.doi.org/10.1155/2015/512158	Science Citation Index Expanded Scopus Q2	11
http	Klaib MFJ, Al-batah Mohammad Subhi, Rasras RJ. 3-way Interaction Testing Using the Tree Strategy. Procedia Computer Science. Elsevier BV; 2015;65:845–52. Available from: http://dx.doi.org/10.1016/j.procs.2015.09.040 https://www.elsevier.com/journals/procedia-computer-science/1877-09/abstracting-indexing	Scopus	4
21.	Migdadi H, Albatah MS. Testing Reliability Equivalence Factors of a Series-Parallel Systems in Burr Type X Distribution. British Journal of Mathematics & Computer Science. Sciencedomain International; 2014 Jan 10;4(18):2618–29. Available from: http://dx.doi.org/10.9734/bjmcs/2014/9922 Journal Website: http://www.sciencedomain.org/journal-home.php?id=6 .	Ulrich's, CrossRef, Google scholar	9
22.	Alkhasawneh MS, Tay LT, Ngah UK, Al-batah Mohammad Subhi, Mat Isa NA. Intelligent Landslide System Based on Discriminant Analysis and Cascade-Forward Back-Propagation Network. Arabian Journal for Science and Engineering. Springer Science and Business Media LLC; 2014 Apr 18;39(7):5575–84. Available from: http://dx.doi.org/10.1007/s13369-014-1105-8 Journal Website: http://www.springer.com/engineering/journal/13369 .	Science Citation Index Expanded, Scopus Q2	15
23.	Migdadi H, Al-batah MS. Bayesian Inference Based on the Interval Grouped Data from the Weibull Model with Application. British Journal of Mathematics & Computer Science. Sciencedomain International; 2014 Jan 10;4(9):1170–83. Available from: http://dx.doi.org/10.9734/bjmcs/2014/7930 Journal Website: http://www.sciencedomain.org/journal-home.php?id=6 .	Ulrich's, CrossRef, Google scholar	4
24.	Al-batah Mohammad. Testing the Probability of Heart Disease Using Classification and Regression Tree Model. Annual Research & Review in Biology. Sciencedomain International; 2014 Jan 10;4(11):1713–25. Available from: http://dx.doi.org/10.9734/arrb/2014/7786 Journal Website: http://www.sciencedomain.org/journal-home.php?id=32 .	Scopus	8
	Subhi Al-batah M, Mat Isa NA, Klaib MF, Al-Betar MA. Multiple Adaptive Neuro-Fuzzy Inference System with Automatic Features Extraction Algorithm for Cervical Cancer Recognition. Computational and Mathematical Methods in Medicine. Hindawi Limited; 2014;2014:1–12. Available from: http://dx.doi.org/10.1155/2014/181245 Journal Website: http://www.hindawi.com/journals/cmmm/ .	Science Citation Index Expanded, Scopus Q2, EBSCO	16
26.	Alkhasawneh MS, Ngah UK, Tay LT, Mat Isa NA, Al-Batah MS. Modeling and Testing Landslide Hazard Using Decision Tree.	Emerging Sources	67

	Journal of Applied Mathematics. Hindawi Limited; 2014;2014:1–9. Available from: http://dx.doi.org/10.1155/2014/929768	Citation Index, Scopus Q3,	
	Journal Website: http://www.hindawi.com/journals/jam/.	EBSCO.	
27.	Quteishat A., Al-batah M., Al-mofleh A., Alnabelsi S.H. Cervical	Scopus 4,	10
	Cancer Diagnostic System Using Adaptive Fuzzy Moving K-means	EBSCO,	
	Algorithm and Fuzzy MIN-MAX Neural Network. Journal of	Ulrich's	
	Theoretical and Applied Information Technology; 2013; 57(1):48-53.	GG	
	Journal Website: http://www.jatit.org/.		
28	Alkhasawneh MS, Ngah UK, Tay LT, Mat Isa NA, Al-batah	Scopus Q2,	38
20.	Mohammad Subhi. Determination of Important Topographic Factors	EBSCO	30
	for Landslide Mapping Analysis Using MLP Network. The Scientific	LDSCO	
	World Journal. Hindawi Limited; 2013;2013:1–12. Available from:		
	http://dx.doi.org/10.1155/2013/415023		
	Journal Website: http://www.hindawi.com/journals/tswj/.		
29.	Sheta AF, Baareh A, Al-Batah M. 3D object recognition using fuzzy	Scopus	12
	mathematical modeling of 2D images. Proceedings of 2012		
	International Conference on Multimedia Computing and Systems,		
	ICMCS 2012, IEEE; 2012 May; Available from:		
	http://dx.doi.org/10.1109/icmcs.2012.6320118		
30.	karimBaareh A, F. Sheta A, S. Al-Batah M. Feature based 3D Object	EBSCO,	11
	Recognition using Artificial Neural Networks. International Journal of	Ulrich's	
	Computer Applications. Foundation of Computer Science; 2012 Apr		
	30;44(5):1–7. Available from: http://dx.doi.org/10.5120/6256-8402		
	Journal Website: http://www.ijcaonline.org/.		
31	Isa NAM, Sani ZM, Al-Batah MS. Automated Intelligent real-time	Scopus Q2	18
٥	system for aggregate classification. International Journal of Mineral	000pus Q 2	.0
	Processing. Elsevier BV; 2011 Jul;100(1-2):41–50. Available from:		
	http://dx.doi.org/10.1016/j.minpro.2011.04.009		
loi	Innal Website: http://www.journals.elsevier.com/international-journal-		
	nineral-processing/		
_			3
32.	Quteishat AM, Al-Mofleh A, Al-Mefleh M, Al-Batah MS. Module for		3
	online assignment submission. 2011 Fourth International		
	Conference on Modeling, Simulation and Applied Optimization.		
	IEEE; 2011 Apr; Available from:		
	http://dx.doi.org/10.1109/icmsao.2011.5775475		
33.	Mohammad Subhi Al-Batah, Zabian A., Abdel-wahed M. (2011)	Scopus	3
	Suitable Features Selection for the HMLP Network using Circle		
	Segments Method, European Journal of Scientific Research, ISSN		
	Segments Method, European Journal of Scientific Research, ISSN 1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS,		
	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS,		
	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND.		
34.	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website:	Science	48
34.	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com .	Science Citation Index	48
34.	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron	Citation Index	48
34.	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com. Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010	Citation Index Expanded,	48
34.	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com. Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from:	Citation Index	48
	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018	Citation Index Expanded,	48
Jou	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Jurnal Website: http://www.journals.elsevier.com/applied-soft-	Citation Index Expanded,	48
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com. Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Jan;10(1):236-45. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Jan;10(1):236-45. Available from: http://www.journals.elsevier.com/applied-soft-pputing/.	Citation Index Expanded, Scopus Q1	
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Irnal Website: http://www.journals.elsevier.com/applied-soft-pputing/ . Al-Batah MS, Mat Isa NA, Zamli KZ, Sani ZM, Azizli KA. A novel	Citation Index Expanded,	48
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Irnal Website: http://www.journals.elsevier.com/applied-soft-nputing/ . Al-Batah MS, Mat Isa NA, Zamli KZ, Sani ZM, Azizli KA. A novel aggregate classification technique using moment invariants and	Citation Index Expanded, Scopus Q1	
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Irnal Website: http://www.journals.elsevier.com/applied-soft-puting/ . Al-Batah MS, Mat Isa NA, Zamli KZ, Sani ZM, Azizli KA. A novel aggregate classification technique using moment invariants and cascaded multilayered perceptron network. International Journal of	Citation Index Expanded, Scopus Q1	
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Jurnal Website: http://www.journals.elsevier.com/applied-soft-puting/ . Al-Batah MS, Mat Isa NA, Zamli KZ, Sani ZM, Azizli KA. A novel aggregate classification technique using moment invariants and cascaded multilayered perceptron network. International Journal of Mineral Processing. Elsevier BV; 2009 Jul;92(1-2):92–102. Available	Citation Index Expanded, Scopus Q1	
Jou con	1450-216X, Vol.67 No.1 (2011), pp. 52-65, EUROJOURNALS, LONDON, ENGLAND. Journal Website: http://www.europeanjournalofscientificresearch.com . Al-Batah MS, Mat Isa NA, Zamli KZ, Azizli KA. Modified Recursive Least Squares algorithm to train the Hybrid Multilayered Perceptron (HMLP) network. Applied Soft Computing. Elsevier BV; 2010 Jan;10(1):236–44. Available from: http://dx.doi.org/10.1016/j.asoc.2009.06.018 Irnal Website: http://www.journals.elsevier.com/applied-soft-puting/ . Al-Batah MS, Mat Isa NA, Zamli KZ, Sani ZM, Azizli KA. A novel aggregate classification technique using moment invariants and cascaded multilayered perceptron network. International Journal of	Citation Index Expanded, Scopus Q1	

	journal-of-mineral-processing/.		
36.	Isa NAM, Subhi Al-Batah M, Zamli KZ, Azizli KA, Joret A, Noor NRM. Suitable features selection for the HMLP and MLP networks to identify the shape of aggregate. Construction and Building Materials. Elsevier BV; 2008 Mar;22(3):402–10. Available from: http://dx.doi.org/10.1016/j.conbuildmat.2006.08.005 Journal Website: http://www.journals.elsevier.com/construction-and-building-materials/ .	Scopus Q1, Science Citation Index Expanded	33
37.	Noor NRM, Isa NAM, Mashor MY, Othman NH, Zamli KZ, Al-Batah MS. Automatic Glass-Slide Capturing System for Cervical Cancer Pre-Screening Program. American Journal of Applied Sciences. Science Publications; 2008 May 1;5(5):461–7. Available from: http://dx.doi.org/10.3844/ajassp.2008.461.467 http://thescipub.com/journals/ajas	Scopus, EBSCO, Ulrichs, Thomson Gale	5
38.	Joret A, Al-Batah MS, Ali AN, Nor Ashidi Mat Isa, Sulong MS. Ashac: An alternative towards classifying the shape of aggregate. 2007 International Conference on Intelligent and Advanced Systems. IEEE; 2007 Nov; Available from: http://dx.doi.org/10.1109/icias.2007.4658382		4
39.	Joret A., Al-Batah M.S., Ali A.N., Mat-Isa N.A. and Sulong M.S. (2007) ASHAC: An Intelligent System to Classify the Shape of Aggregate, The 3rd International Colloquium on signal processing and its applications, Melaka, Malaysia, p. 1-4.		2
40.	Md-Sani Z., Mat-Isa N.A., Suandi S.A., Al-Batah M.S., Zamli K.Z. and Azizli K.A. (2007) Intelligent Rock Vertical Shaft Impact Crusher Local Database System, International Journal of Computer Science and Network Security, ISSN: 1738-7906, Volume 7, Issues 6, Pages 57-62. Journal Website: http://ijcsns.org/	Emerging Sources Citation Index, EBSCO	3
41.	Mat-Isa N.A., Joret A., Al-Batah M.S., Ali A.N., Zamli K.Z. and Azizli K.A. (2006) Microcontroller Based HMLP Realization for Aggregate Classification System, International Journal of Factory Automation, Robotics and Soft Computing, ISSN: 1828-6984, Issue 2, Pages 19-26.	Index Copernicus	3
42.	Joret A., Mat-Isa N.A., Ali A.N., Zamli K.Z., Azizli K.A. and Al-Batah M.S. (2005) Classifying the Shape of Aggregate using Hybrid Multilayered Perceptron Network, 9 th WSEAS International Conference on Systems, (ICS 2005), Vouliagmeni, Athens, Greece, p. 497-514.		1
43.	Joret A., Abu-Hassan H., Mat-Isa N.A., Ali A.N., Azizli K.A., Zamli K.Z. and Al-Batah M.S. (2005). Pilot Study on Classifying the Aggregate Shape with Neural Network, The International Conference on Robotics, Vision, Information and Signal Processing (ROVISP2005), Penang, Malaysia, p. 881-885.		
	Mat-Isa N.A., Joret A., Al-Batah M.S, Ali A.N., Zamli K.Z. and Azizli K.A. (2006) Microcontroller Based HMLP Realization for Aggregate Classification System, International Society for Advanced Research, Recent advances in Control Systems, Robotics and Automation, Palermo, Italy, p. 44-51.		
45.	Mat-Isa N.A., Al-Batah M.S., Md-Sani Z., Suandi S.A., Zamli K.Z. and Azizli K.A. (2008) Bronze Medal Award in Invention, Innovation and Industrial Design Technology Exhibition 2008 (I-TEX 2008), Putra World Trade Centre, Kuala Lumpur, Malaysia.		

References				
Name	Employer	Email	Phone no.	
Dr. Radwan	Department of Materials	dr.dweiri@bau.edu.jo	00962797611244	
Dweiri	Engineering, Al-Balga' Applied			
	University, Jordan			
Dr. Mohammad	Department of Software	mom_klaib@yahoo.com	00962778147636	
Fadel Jamil	Engineering, Middle East			
Klaib	University, Jordan			
Dr. Anas	Faculty of Engineering	anas.quteishat@bau.edu.jo	00962797036384	
Qutieshat	Technology, AlBalqa Applied			
	University, Salt, Jordan.			
Emran	Department of Computer	o.aljarrah@jadara.edu.jo	00962777201124	
Mahmoud	Science, Faculty of Science and			
Mohammad	Information Technology, Jadara			
Aljarrah	University, Jordan			
Dr. Fuad Subhi	Dawadmi Hospital, Kingdom of	fuadbattah@yahoo.com	00962777789661	
Al-Battah	Saudi Arabia			
Prof. Dr. Nor	Software Engineering	ashidi@eng.usm.my	006-04-5937788	
Ashidi Bin Mat	Department, University of		ext. 6051	
Isa	Science Malaysia, Penang,			
	Malaysia			
Prof. Dr. Kamal	Software Engineering	eekamal@eng.usm.my	006-04-5937788	
Zuhairi Zamli	Department, University of		ext. 6079	
	Science Malaysia, Malaysia			

I certify that all provided information is valid:

Name: Mohammad Subhi Mohammad Al-Batah Date: 01/10/2022