Curriculum Vitae

Personal Information	First name/Surname	**Dr. Abdullah**
	Address	Institute of Computer Sciences and Information Technology

Author Name is Abdullah. He was born on February 06 1985, in Dir (Lower), KPK Province, Pakistan. He did his BSc degree from Malakand University during 2004-2006. In 2006, he joined University of Science and Technology, Bannu, KPK Province, Pakistan for MSc in Computer Science. He later enrolled in the University Tun Hussein Onn Malaysia to continue his PhD at the end of 2010. During his Doctor of Philosophy (PhD) in Information Technology at University Tun Hussein Onn Malaysia (UTHM), he started his research journey under professional guidance of the supervision of Professor Dr. Nazri Mohd. Nawi. He is currently an Assistant Professor at the Institute of Computer Science and Information Technology Faculty of Management and Computer Sciences The University of Agriculture, Peshawar, Pakistan. He has published several research articles in the field of optimization and metaheuristics, neural network, data mining, prediction and Deep learning etc. His main research interests include hybrid neural networks, knowledge based systems, and data mining, deep learning, and web mining.

The University of Agriculture, Peshawar, Pakistan
Telephone +92 3489150527
E-mail Abdullah_khan@aup.edu.pk, abdullahdirvi@gmail.com
Date of Birth 6th Feb 1985
Nationality Pakistani

Career objective & Key Strengths

With my background in Research and Computing, I am keen to be a part of growing and dynamic organization, where my training and abilities are utilized and the work gives me the challenge to constantly enhance my skills and vision with my:

- More than 10 year of experience in Education and Research
- Strong computational and analytical skills
- Ability to plan, organize and keep going when things get difficult

Interests

Data mining, Machine learning, Deep learning, Neural network, classification, Clustering, Web Mining, Swarm Intelligence Optimization Hybrid Intelligent Systems, Analysis of algorithm, Optimization techniques, Discrete Structures, Linear Algebra, Data Structures, Statistics, Structural Programming, and Prediction.

Educational Background

20011–2015 **PhD (IT)** , *University Tun Hussain Onn Malaysia (UTHM).*
Specialization in Information Technology

2006–2008 **MCS**, *University Science and Technology Bannu, Pakistan*.
Specialization in Computer Science

Professional Experience

2018-Current **Assistant Professor at FMCS:**
Working as an Assistant Professor at the Faculty of Management and Computer Sciences, Agriculture University, Peshawar.
Responsibilities:

- Teaching at PhD, Master and Undergraduate Level.
- Preparation of concepts notes and project proposal
- Member of NCEAC Accreditation Process
- Supervision of undergraduate and graduate students

2017-2018 **Assistant Professor at Preston University, Kohat:**
Working as an Assistant Professor at the Department of Computer Science, Preston University Kohat, Pakistan.
Responsibilities:

- HoD of the Department of Computer Science, Preston University Kohat,
- Preparation of concepts notes and project proposal.
- Member of NCEAC Accreditation Process
- Teaching at Masters and Undergrad level

2015-2017 **Assistant Professor at Institute of Business and Management Science(IBMS)**:
Responsibilities:

- Teaching at Master and Undergraduate Level.
- Preparation of concepts notes and project proposal
- Supervision of undergraduate and graduate students

Teachings

PhD & Master Level

1. Research Methodology
2. Machine learning
3. Data Mining
4. Information Security
5. Advance Computer Architecture
6. Deep learning
7. Advance Web Technology

Undergraduate Level

1. Introduction to Computer
2. Fundamental to Programming in C++
3. Operating System
4. Technology Management
5. System integration and Architecture
6. Artificial Intelligence
7. Advance Operating System
8. Relational data base management system
9. Information Management System
10. Digital logical Design (DLD)
11. Computer Application
12. Human computer interaction
13. Data Warehouse
14. Data base System

PhD Thesis

Title Improved cuckoo search based neural network learning algorithms for data classification

Conference Paper Presentation, Workshop and Seminar Attained

- Paper presented in International Conference on Integrated Electrical and Electronic Engineering s (ICIEEE) 2014
- Seminar attained on Mathematica in Education Research on 28 June 2012 at UTHM.
- Seminar attained on
- UK perspective of Research VIVA: preparation and Performance
- Computer Simulation and logistics Management.
- Participant in Seminar of the Research Journey on 17 July 2012 at UTHM Organized by CGS
- Participant in Workshop on THESIS WRITING held on 27 April 2011 UTHM
- Session Chair to first International Conference on Advance Data and Information Engineering (DaEng-2013) held on 16- 18 December 2013.
- Paper presented in first International Conference on Advance Data and Information Engineering (DaEng-2013) held on 16- 18 December 2013.
- Paper presented in the 8th International Conference on Robotic Vision, Signal Processing and Power Application (RoViSP 2013) Held in Penang on 11-12 Nov-2013.

Achievements & Grants

2011-2015 **Post Graduate Research Grant**

- GeranInsentif Penyelidik Siswazah (GIPS)
- 2012-2014, Vote: 1033
- Fundamental Research Grant Scheme (FRGS)
- 2013-2015, Vote: 1236.

- Best Paper Award in ICT Category – International Conference on Man Machine Systems (ICoMMS) 2015: An Accelerated Particle Swarm Optimized Intelligent Weight Update in Back Propagation Algorithm
- Award of 3rd Best Paper in ICT Category – Malaysian Universities Conference on Engineering and Technology (MUCET) 2015: Enhancing The Cuckoo Search With Levy Flight Through Population Estimation
- Bronze Medal in Research and Innovation Festival 2014–An Efficient Hybrid Accelerated Cuckoo Particle Swarm Optimization (HACPSO) Learning Algorithm
- Silver Madel Research and Innovation Festival 2015, "Global Warming: Predicting OPEC Carbon Dioxide Emissions from Petroleum Consumption Using Neural Networks and Hybrid Cuckoo Search Algorithm.

Journal Papers

1. **Abdullah Khan**, M Imran, et. al. "Forecasting electricity consumption based on machine learning to improve performance: A case study for the organization of petroleum exporting countries (OPEC)", Published in: Computers & Electrical Engineering (2020) JCR IF (2.67)
2. Shah, A., Bangash, J. I., Khan, A. W., Ahmed, I., **Abdullah Khan**, Khan, A., & Khan, A. (2020). Comparative Analysis of Median Filter and its Variants for Removal of Impulse Noise from Gray Scale Images. Journal of King Saud University-Computer and Information Sciences. (JCR I.F 0.433)
3. Ziane, K., Ilinca, A., **Abdullah Khan** & Zebirate, S. (2020). A cuckoo search based neural network to predict fatigue life in rotor blade composites. Journal of Mechanical Engineering and Sciences, 14(1), 6430-6442. JCR, SCOPUS, EBSCO, Ulrichsweb, DOAJ, Google Scholar, **Impact Factor**: 1.359.
4. **Abdullah Khan**, Shah, R., Imran, M. et al. (2019) "An alternative approach to neural network training based on hybrid bio meta-heuristic algorithm"J Ambient Intell Human Comput pp 1-10. https://doi.org/10.1007/s12652-019-01373-4 (JCR I.F 1.910)
5. Sharif, w., yanto, i. t. y., samsudin, n. a., deris, m. m., **Abdullah khan**, Mushtaq, m. f., & Ashraf, m. (2019). An optimised support vector machine with ringed seal search algorithm for efficient text classification. Journal of Engineering Science and Technology, 14(3), 1601-1613 (SJR I.F 0.23.)
6. Haruna Chiroma, **Abdullah Khan,** Adamu I. Abubakar, Younes Saadi , Mukhtar F. Hamzad, Liyana Shui, Abdulsalam Y. Gital , Tutut Herawan, "A new approach for forecasting OPEC petroleum consumption based on neural network train by using flower pollination algorithm" journal of Applied Soft Computing V (48) P- 50–58 (ISI IF: 2.83). Published http://dx.doi.org/10.1016/j.asoc.2016.06.038
7. Sheraz, Adil, Javed Iqbal Bangash, Abdul Waheed Khan, Muhammad Imran, Asfandyar Khan, **Abdullah Khan**, Muhammad Ishaq, and Wajid Ullah Khan. (2019) "A dynamic swift association scheme for wireless body area networks." Transactions on Emerging Telecommunications Technologies: e3724 (JCR I.F 1.66) https://doi.org/10.1002/ett.3724
8. .Haruna Chiroma, **Abdullah Khan**, N. M. Nawi, M. Z. Rehman, Tutut Herawan. (2015) "Global Warming: Predicting OPEC Carbon Dioxide Emissions from Petroleum Consumption Using Neural Networks and Hybrid Cuckoo Search Algorithm". PLoS One Journal. ISI JCR IF: 3.23. Published http://dx.doi.org/10.1371/journal.pone.0136140
9. Adamu I. Abubakar, **Abdullah Khan**, Nazri Mohd Nawi, M. Z. Rehman, Teh Ying Wah, Haruna Chiroma, and Tutut Herawan. "Studying the Effect of Training Levenberg

Marquardt Neural Network by Using Hybrid Meta-Heuristic Algorithms" J. Comput. Theor. Nanosci. 13, 450-460 (2016) Publication ISI IF 1.665. https://doi.org/10.1166/jctn.2016.4826

10. Nazri Mohd Nawi, M. Z. Rehman, **Abdullah Khan**, Haruna Chiroma, and Tutut Herawan."A Modified Bat Algorithm Based on Gaussian Distribution for Solving Optimization Problem" J. Comput. Theor. Nanosci. 13, 706-714 (2016) Publication ISI IF 1.665. https://doi.org/10.1166/jctn.2016.4864
11. N. M. Nawi, **Abdullah Khan**, M. Z. Rehman, HarunaChiroma, TututHerawan(2015). "Weight Optimization in Recurrent Neural Networks with Hybrid Metaheuristic Cuckoo Search Techniques for Data Classification". Mathematical Problems in Engineering (MPE). Volume 2015 (2015), Article ID 868375 ISI IF: 0.762 Published. http://dx.doi.org/10.1155/2015/868375
12. Nazri Mohd. Nawi, M. Z. Rehman, **Abdullah Khan**, Arslan Kiyani, Haruna Chiroma, Tutut Herawan, (2015)."Hybrid Bat & Levenberg-Marquardt Algorithms for Artificial Neural Networks Learning". Accepted for Publication in Journal of Information Systems and Engineering.Vol. 32, PP-1301-1324 (2016) Published Journal. ISI IF:0.41 journal.iis.sinica.edu.tw/paper/1/150456-2.pdf?cd=BF240B37531C4DB28
13. Adamu Abubakar , Haruna Chiroma, AkramZeki, **Abdullah Khan**, Mueen Uddin, Tutut Herawan, (2015). "Dynamics of Watermark Position in Audio WatermarkedFiles using Neural Networks" Applied Mathematics & Information SciencesAn International Journal Vol. 7, PP- 1-13 (2013) ISI IF: 0.94. Published https://pdfs.semanticscholar.org/1a6f/e93c6dd7218eb9babf3a47015b877ac05252.pdf
14. AdamuAbubakar, HarunaChiroma, **Abdullah Khan,** MukhtarFatihu Hamza , Ali Baba Dauda, Mahmood Nadeem, Shah Asadullah, JaafarZubairuMaitama, Tutut Herawan, "Utilizing Modular Neural Network for Prediction of Possible Emergencies Locations within point of Interest of Hajj Pilgrimage". Modern Applied Science; Modern Applied Science; Vol. 10, No. 2; 2016 ISSN 1913-1844 E-ISSN 1913-1852. Publication ISI Q1. URL: http://dx.doi.org/10.5539/mas.v10n2p34
15. N. M. Nawi, **Abdullah Khan** M. Z. Rehman(2013). "CSLM: Levenberg Marquardt based Back Propagation Algorithm Optimized with Cuckoo Search", J. ICT Res. Appl., Vol. 7, No. 2, 2013, 105-119. Published journal.itb.ac.id/download.php?file=C13382.pdf&id=1823&up=4
16. Nazri Mohd. Nawi, M. Z. Rehman, M. I .Ghazali, M. N. Yahya, **Abdullah Khan** (2014). "Hybrid Bat-BP: A New Intelligent tool for Diagnosing Noise-Induced Hearing Loss (NIHL) in Malaysian Industrial Workers", J.Applied Mechanics and Materials, Trans Tech Publications, Switzerland, vol. 465-466, pp. 652--656, 2014. 10.4028/www.scientific.net/AMM.465-466.652
17. Nazri Mohd Nawi, **Abdullah khan** M.Z. Rehman, Nurfarain Hafifie, (2014). "Bat-BP: A New Bat Based Back-Propagation Algorithm for Efficient Data Classification". ARPN Journal of Engineering and Applied Sciences VOL. 11, NO. 24, ISSN 1819-6608. ISI published I.F 0.202. www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_1216_5491.pdf
18. Nazri Mohd Nawi, **Abdullah khan,** NaimFirdaus, M.Z. Rehman(2014). "WCBP: A New Water Cycle Based Back Propagation Algorithm for Data Classification". ARPN Journal of Engineering and Applied Sciences VOL. 11, NO. 24, ISSN 1819-6608. ISI published I.F 0.202 . www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_1216_5509.pdf
19. Nazri Mohd. Nawi, **Abdullah Khan** & M. Z. Rehmanan (2015). "Accelerated particle swarm optimized back propagation algorithm" JurnalTeknologi (Sciences & Engineering) 77:28 (2015) PP-49–53 ISI published. DOI: http://dx.doi.org/10.11113/jt.v77.6790
20. N. M. Nawi, Shah Liyana Shahuddin, M. Z. Rehman, **Abdullah khan** (2015). "Studying the Effect of Pulse rate Loudness and Echolocation in Bat Algorithm", ARPN Journal of

Engineering and Applied Sciences. VOL. 11, NO. 22, ISSN 1819-6608. ISI published I.F 0.202 . www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_1116_5376.pdf

21. N. M. Nawi, Nabila Atika Binti Razali, M. Z. Rehman, **Abdullah khan** (2015). "Enhancing the Cuckoo Search with Levy Flight through Population Estimation", ARPN Journal of Engineering and Applied Sciences. VOL. 11, NO. 22, ISSN 1819-6608. ISI published I.F 0.202 . www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_1116_5373.pdf
22. Adamu Abubakar, Haruna Chiroma, **Abdullah Khan**, Elbara Eldaw Elnour Mohamed. "Examining the Round Trip Time and Packet Length Effect on Window Size by Using the Cuckoo Search Algorithm". International Review on Computers and Software 11(9):752, I.F 0.3 ISI https://doi.org/10.15866/irecos.v11i9.9708
23. Joseph A. Yacim, Douw G.B. Boshoff, and **Abdullah Khan** (2016) Hybridizing Cuckoo Search with Levenberg-Marquardt Algorithms in Optimization and Training Of ANNs for Mass Appraisal of Properties. Journal of Real Estate Literature: 2016, Vol. 24, No. 2, pp. 473-492. (doi: 10.5555/0927-7544.24.2.473) I.F 0.48 ISI published.
24. Gital, A. Y. U., Hamada, M., Haruna, K., Hassan, M., Shittu, F., Ilu, S. Y. **Abdullah khan**, ... & Chiroma, H. (2019). Hybrid of Cuckoo Search Algorithm with Lévy Flight and Neural Network for Crude Oil Prices Prediction. Journal of Computational and Theoretical Nanoscience, 16(10), 4092-4104.

Book Chapter Publications

1. Khan, S., **Abdullah Khan**, Ullah, R., Ali, M., & Ullah, R. (2020). Insulin DNA Sequence Classification Using Levy Flight Bat With Back Propagation Algorithm. In Mobile Devices and Smart Gadgets in Medical Sciences (pp. 232-252). IGI Global, DOI: 10.4018/978-1-7998-2521-0.ch011.
2. Rehan Ullah,., **Abdullah Khan**, Abid, S. B. S., Khan, S., Shah, S. K., & Ali, M. (2020). Crow-ENN: An Optimized Elman Neural Network with Crow Search Algorithm for Leukemia DNA Sequence Classification. In Mobile Devices and Smart Gadgets in Medical Sciences (pp. 173-213). IGI Global. DOI: 10.4018/978-1-7998-2521-0.ch009.
3. Roman, M., Khan, S., **Abdullah Khan**, & Ali, M. (2020). Optimizing Learning Weights of Back Propagation Using Flower Pollination Algorithm for Diabetes and Thyroid Data Classification. In Mobile Devices and Smart Gadgets in Medical Sciences (pp. 270-296). IGI Global, DOI: 10.4018/978-1-7998-2521-0.ch013.
4. Nazri Mohd. Nawi, **Abdullah khan,** M. Z. Rehman, Rashid Naseem, and Jamal Uddin (2019). "Studying the Effect of Optimizing Weights in Neural Networks with Metaheuristic Techniques". DaENG-2015 published in LNEE Journal of Springer Vol 520, PP: 323-330.
5. Nazri Mohd. Nawi, **Abdullah khan**, N. S. Muhamadan, M. Z. Rehman(2019). HAPSOENN: Hybrid Accelerated Particle Swarm Optimized Elman Neural Network. DaENG-2015 published in LNEE Journal of Springer Vol. 520, PP: 315-322.
6. Haruna Chiroma, **Abdullah Khan**, et al.,(2019). Estimation of Middle East Oil Consumption using Hybrid Metaheuristic Algorithm .DaENG-2015 published in LNEE Journal of Springer Vol. 520, PP: 139-149.
7. Haruna Chiroma, **Abdullah Khan,** et al., (2019). Bio-Inspired Algorithm Optimization of Neural Network for the Prediction of Dubai Crude Oil Price.DaENG-2015 published in LNEE Journal of Springer Vol. 520, PP: 151-161.
8. Haruna Chiroma, SameemAbdulkareem, **Abdullah Khan**,TututHerawan, (2019). Hybrid of Swarm Intelligent Algorithm in Medical Application. DaENG-2015 published in LNEE Journal of Springer Vol. 520, PP: 619-628.
9. **Abdullah Khan**. et al. (2019) A Novel Chicken Swarm Neural Network Model for Crude Oil Price Prediction. In: Herawan T., Chiroma H., Abawajy J. (eds) Advances on Computational Intelligence in Energy. Green Energy and Technology. Springer, Cham Pages 39-58

10. **Abdullah Khan.** et al. (2019) Forecasting OPEC Electricity Generation Based on Elman Network Trained by Cuckoo Search Algorithm. In: Herawan T., Chiroma H., Abawajy J. (eds) Advances on Computational Intelligence in Energy. Green Energy and Technology. Springer, Cham Pages 59-76
11. **Abdullah** (2015). Improved cuckoo search based neural network learning algorithms for data classification. PhD thesis, Universiti Tun Hussein Onn Malaysia http://eprints.uthm.edu.my/8031/.
12. N. M. Nawi, **Abdullah Khan,** M. Z. Rehman (2013). "A New Back-propagation Neural Network optimized with Cuckoo Search Algorithm. B. Murgante et al. (Eds.): Part I, LNCS 7971, pp. 413--426.ICCSA 2013 Springer, Heidelberg. link.springer.com/chapter/10.1007/978-3-642-39637-3_33
13. Nazri Mohd. Nawi, Muhammad Zubair Rehman, Norhamreeza Abdul Hamid, **Abdullah Khan**, Rashid Naseem and Jamaluddin Jamal uddin."Optimizing Weights in Elman Recurrent Neural Networks with Wolf Search Algorithm. Recent Advances on Soft Computing and Data Mining Vol. 549, PP- 11-20. Springer, Heidelberg link.springer.com/chapter/10.1007/978-3-319-51281-5_2
14. **Abdullah Khan,** Nazri Mohd. Nawi, Rahmat Shah, Nasreen Akhter, Attaullah, M. Z. Remain, Haruna Chiroma. (2016)."Chicken S-BP: An Efficient Chicken Swarm Based Back-Propagation Algorithm. Recent Advances on Soft Computing and Data Mining Vol. 549, PP- 122-129. Springer, Heidelberg. link.springer.com/chapter/10.1007/978-3-319-51281-5_13
15. N. M. Nawi, **Abdullah Khan**, M. Z. Rehman (2013). "A New Cuckoo Search based Levenberg-Marquardt (CSLM) Algorithm. B. Murgante et al. (Eds.): Part I, LNCS 7971, pp. 438--451. ICCSA 2013Springer, Heidelberg. link.springer.com/chapter/10.1007/978-3-642-39637-3_35
16. N. M. Nawi, **Abdullah Khan**, M. Z. Rehman (2013). "A New Optimized Cuckoo Search Recurrent Neural Network (CSRNN)Algorithm. Vol-291 pp, 335-341 In: ROVISP-2013, published in LNEE Journal of Springer.Penang.
17. M. Z. Rehman, N. M. Nawi, **Abdullah Khan** (2013). "The Effect of Bat Population in Bat-BP Algorithm. V0l-291 pp-295-302 In: ROVISP-2013, published in LNEE Journal of Springer.Penang. link.springer.com/chapter/10.1007/978-981-4585-42-2_39
18. M. Z. Rehman, N. M. Nawi, **Abdullah Khan** (2013). "A New Bat Based Back-Propagation (BAT-BP) Algorithm. In: ICSS-2013, Advances in Systems Science Vol. 240, PP-404 Journal of Springer.Poland. link.springer.com/chapter/10.1007/978-3-319-01857-7_38
19. M. Z. Rehman, N. M. Nawi, **Abdullah Khan** (2013). Countering the problem of oscillations in Bat-BP gradient trajectory by using momentum. In: DaENG-2013, published in Lecture Notes in Electrical EngineeringJournal of Springer. Vol. 285 PP- 103-110 link.springer.com/chapter/10.1007%2F978-981-4585-18-7_12
20. N. M. Nawi, **Abdullah Khan,**M. Z. Rehman (2013). "CSBPRNN: A New Hybridization Technique Using Cuckoo Search to Train Back Propagation Recurrent Neural Network. In: DaEng 2013, published in Lecture Notes in Electrical Engineering Journal of Springer. Vol. 285, PP- 111-118. link.springer.com/chapter/10.1007/978-981-4585-18-7_13
21. N. M. Nawi, **Abdullah Khan,** M. Z. Rehman,Tutut Herawan, Mustafa Mat Deris(2014). "Comparing Performances of Cuckoo Search Based Neural Networks". Recent Advances on Soft Computing and Data Mining: SCDM-2014, Springer International Publishing, PP-163-172. link.springer.com/chapter/10.1007/978-3-319-07692-8_16
22. Haruna Chiroma, **Abdullah Khan**, Sameem Abdul-Kareem, Sanah Abdullahi Muaz, EkaNovita Sari, Tutut Herawan(2014). "Neural Network Intelligent Learning Algorithm for Inter-related Energy Products Applications". Lecture Notes in Computer Science, PP- 284-293. link.springer.com/chapter/10.1007/978-3-319-11857-4_32
23. Nazri Mohd Nawi, **Abdullah Khan**, MZ Rehman, Tutut Herawan, Mustafa Mat

Deris(2014). “CSLMEN: A New Cuckoo Search Levenberg Marquardt Elman Network for Data Classification”. Recent Advances on Soft Computing and Data Mining, Springer International Publishing. PP- 173-182. link.springer.com/chapter/10.1007/978-3-319-07692-8_17

24. **Abdullah Khan**, N. M. Nawi, M. Z. Rehman(2014). Studying the Effect of Back Propagation Based Cuckoo Search on Data Classification. UTHM BOOK CHAPTER.
25. **Abdullah Khan,** N. M. Nawi, S. M. Ashraf, M. Z. Rehman(2014). APSO-BPNN: An Accelerated Particle Swarm Optimization Back Propagation Neural Network Algorithm with Adaptive Momentum. UTHM BOOK CHAPTER