

DR. ALI ARSHAD

HEC Approved Supervisor



Present: House No 57-DD, Sector D, Street 5, Bahria Town, Lahore

Permanent: House No. 346, Main Service Road, Sector G-10/1, Islamabad, Pakistan.

Cell #: +92-300-5135683

E-mail: alli.arshad@gmail.com

Google Scholar: <https://scholar.google.com/citations?user=qE8wjN4AAAAJ&hl=en>

Researchgate: https://www.researchgate.net/profile/Ali_Arshad10

Research Interests

My research interests are in **Artificial Intelligence** and **Health care**. The goal of my research is to investigate Artificial Intelligence (AI) methods to impact healthcare practices and to innovate healthcare solutions.

Education and Academic Degrees

Ph.D. Computer Science and Technology (Sep. 2015 – June 2019)

Thesis Title: Semi-Supervised Deep Fuzzy C-Mean Clustering and Classification

Department: Computer Science and Technology, **Xidian University, Xi'an, P.R. China**

MS Software Engineering (Sep. 2008 – May. 2012)

Thesis Title: Integrated Framework for Software Cost Estimation Models

Department: Computer Science and Software Engineering, **International Islamic University, Islamabad, Pakistan**

BS Computer Science (Sep. 2004 – June. 2008)

Thesis Title: Student and Faculty Information System

Department: Computer Science, **IQRA University, Islamabad, Pakistan**

Work Experience

- **02/2024- Present**, Head of Department & Associate Professor, Department of Computing, NASTP Institute of Information Technology (NIIT), Lahore, Pakistan.
- **02/2022- 02/2024**, Assistant Professor, Department of Computer Science, National University of Technology, Islamabad, Pakistan.
- **07/2021- 02/2022**, Assistant Professor, Department of Computer Science, KICSIT Campus, Institute of Space Technology (IST), Islamabad, Pakistan.
- **09/2019- 07/2021**, HoD of Computing Department, Abasyn University, Islamabad, Pakistan.
- **06/2019- 12/2019**, Assistant Professor, SS- CASE- IT, Islamabad, Pakistan.
- **9/2015-6/2019**, Research Associate, The Key Lab of Intelligent Perception and Image Understanding of Ministry of Education of China, Xidian University, Xian, P. R. China.
- **09/2013-08/2015**, Lecturer, ISRA University, Islamabad, Pakistan.

- **08/2011-08/2015**, Assistant Manager Software, Pakistan Telecommunication Employee Trust, Islamabad, Pakistan.
- **08/2010-06/2011**, IT Manager, Infra-D Consultants (IDC), Islamabad, Pakistan
- **01/2007-07/2010**, Data Analyst Specialist, Sheladia Associates Inc., US-AID, Islamabad, Pakistan

Course Teaching

- Advance Artificial Intelligence
- Advance Analysis of Algorithm
- Advance Theory of Computation
- Artificial Intelligence
- Fuzzy Logic and Neural Network
- Theory of Automata
- Compiler Construction
- Formal Methods in Software Engineering
- Software Requirement Engineering
- Software Engineering
- Information Security
- Fundamental of IT

Post-Graduate Students Supervision

1. **Ammara Nayab**
MS Thesis Title: A Proposed Approach for Examining the Public Perception Toward Covid-19 Sops by Using Deep Learning Classifiers **Spring 2021 (Completed)**
2. **Muhammad Nadeem**
MS Thesis Title: Novel Intrusion Detection System based Network with Empirical Analysis **Spring 2021 (Completed)**
3. **Madiha Mehmood**
MS Thesis Title: Analysis of the perception of E-Learning in public organizations using cloud computing **Spring 2021 (Completed)**
4. **Muhammad Umer**
MS Thesis Title: Software cost Estimation by using Machine Learning Approaches **(Completed)**
5. **Muhammad Ayaz**
MS Thesis Title: Early Breast Cancer Detection by using Deep Learning in Pakistani Environment **(Completed)**
6. **Mian Irshad Ahmed Hanif**
MS Thesis Title: Handwritten Urdu Character Recognition Using Deep Learning **(Completed)**
7. **Moneeb Ifartikh**
MS Thesis Title: Multi-polarity Sentiment Analysis of Automobile Reviews **(Completed)**
8. **Adil Hussain**
MS Thesis Title: Cyber Threats Detection and Prevention Through Intrusion Detection System and Cloudflare **(Completed)**

Under-Graduate Students Supervision

1. Bahadur Ahmed Khan and Muhammad Danish: E-Psychiatrist by using AI. **Fall 2022 Spring 2023 (Completed)**
2. Zain ul Arfeen and Hamza Shafi: Classification of SARS-COV-2 (coronavirus) from Chest x-rays **Spring 2021 (Completed)**
3. Nimra Buksh: Agriculture Information System **Fall 2021 (Completed)**
4. Uzair Usman and Ansar Ullah: Computerized FYP System **Spring 2021 (Completed)**
5. Hamza Arshad and Muhammad Usman: Online Medical System **Spring 2021 (Completed)**
6. Muhammad Hassam, Umer Zahid, and Palwasha Hashmi: Empirical Study of semi-supervisedDFCM Clustering algorithm **Spring 2021 (Completed)**
7. Afsheen Bibi and Mehtab Satti: Student Grade Prediction System **Spring 2020 (Completed)**
8. M. Umaid Arshad, M. Fahad Saleem, and M. Adeel Sajid: E-Bidding for Farming **Fall 2019(Completed)**
9. Bushra Khan: Cooking Assistant **Fall 2019 (Completed)**

Awards and Achievements

- **Focal person of NCEAC accreditation** Visit for BS (Computer Science), BS (Artificial Intelligence), BS (Cyber Security), and BS (Software Engineering) for NASTP Institute of Information Technology (NIIT), Lahore from Feb 2024- Present.
- **Focal person of NCEAC accreditation** Visit for BS (Computer Science), BS (Artificial Intelligence) and BS (Software Engineering) for National University of Technology, Islamabad from Feb 2022- Feb 2024.
- **Heading the NCEAC accreditation** Visit for BS (Computer Science) for Abasyn University, Islamabad, March 2021.
- **Heading the NCEAC accreditation Visit** for BS (Software Engineering) for Abasyn University, Islamabad, in January 2020.
- **Session Chair**, “10th International Virtual Conference on Emerging Trends and Technology in Computing and Software Engineering” ILMA University, Karachi, Pakistan (2021)
- Won Full Bright (A - Category) Scholarship for Ph.D. Studies from Chinese Government Scholarship Council (2015 – 2019).
- **Best Paper Award** in “3rd IEEE - International Conference on Information Technology and Mechatronics Engineering” (IEEE - ITOEC-2017), Chongqing, P.R. China.
- Participated in Quiz Competition at IQRA University, Islamabad, Pakistan (2007)
- International testing of mathematics at Bahria College, E - 8, Islamabad, Pakistan (2000)

Attended Conferences, Training, and Seminars

- Effective Teaching and Learning- Cohort-I at **University of Alabama, Tuscaloosa, USA**, 31 May2022 – 4 March 2023
- Paper Presented in “19th IEEE - International Conference on Smart Technologies (EUROCON),July 6 – 8, 2021, Lviv, Ukraine.
- Attended workshop on “International Workshop & Exhibition on Artificial Intelligence in HealthCare”

COMSTECH Secretariat, 24-25 November 2020.

- Paper Presented in “3rd IEEE - International Conference on Information Technology and Mechatronics Engineering”, (IEEE - ITOEC-2017), Chongqing, P.R. China.
- Got Training of IKECT Training Program for Silk Road Engineering Sciences and Technology Development at Xidian University, Xian, P. R. China.

Articles Published in Journals (Impact Factor = 74.43)

1. A. Zafar, N. Saba, **A. Arshad**, A. Alabrah, S. Riaz, M. Suleman, S. Zafar, M. Nadeem, “Convolutional Neural Networks: A Comprehensive Evaluation and Benchmarking of Pooling Layer Variants”, *Symmetry*, 2024. **(Impact Factor = 2.2) (SCI- HEC- W Category)**
2. S. W. Zahra, M. Nadeem, **A. Arshad**, S. Riaz, W. Ahmed, M. AbuBakr, A. Alabrah, “Emergence of Novel WEDEX-Kerberotic Cryptographic Frame-work to Strengthen the Cloud Data Security against Malicious Attacks”, *MDPI-Symmetry*, 2024. **(Impact Factor = 2.70) (SCI- HEC- W Category)**
3. S. W. Zahra, M. Nadeem, **A. Arshad**, S. Riaz, M. Abu Bakr, A. K. Dutta, Z. Alzaid, B. Almutairi, S. Almotairi, “An Innovative Approach Using TKN-Cryptology for Identifying the Replay Assault”, *CMC-Computers, Materials & Continua*, 2023. **(Impact Factor = 3.860) (SCI- HEC- W Category)**
4. F. Sajjad, M. Rashid, A. Zafar, K. Zafar, B. Fida, **A. Arshad**, S. Riaz, AK. Dutta, JJ. Rodrigues, “An efficient hybrid approach for optimization using simulated annealing and grasshopper algorithm for IoT applications”, *Discover Internet of Things*, vol. 3, 2023.
5. **A. Arshad**, M. Nadeem, S. Riaz, A. Alruban, S.W Zahra, A. K. Dutta, Z. Alzaid R. Alabdan, B. Almutairi, S. Almotairi, “Hill Matrix and Radix-64 Bit Algorithm to Preserve Data Confidentiality”, *CMC-Computers, Materials & Continua*, 2023. **(Impact Factor = 3.860) (SCI- HEC- W Category)**
6. S. Riaz, **A. Arshad**, Shahab S.Band and A. Mosavi, “Deep Bimodal Fusion Approach for Apparent Personality Analysis”, *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.778) (SCI- HEC- W Category)**
7. Zahra, S.W.; **Arshad, A.**; Nadeem, M.; Riaz, S.; Dutta, A.K.; Alzaid, Z.; Alabdan, R.; Almutairi, B.; Almotairi, S. Development of Security Rules and Mechanisms to Protect Data from Assaults. *Appl. Sci.* 2022, 12, 12578. **(Impact Factor = 2.838) (SCI- HEC- W Category)**
8. A. Zafar, M. Aamir, N. M Nawawi, **A. Arshad**, S. Riaz, A. Alruban, A. K. Dutta, B. Almutairi, S. Almotairi, “An Optimization Approach for Convolutional Neural Network Using Non-Dominated Sorted Genetic Algorithm-II”, *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.860) (SCI- HEC- W Category)**
9. Nadeem, M.; **Arshad, A.**; Riaz, S.; Zahra, S.W.; Dutta, A.K.; Alruban A.; Almutairi, B.; Almotairi, S. Two-Layer Security Algorithms to Prevent Attacks on Data in Cyberspace. *Appl. Sci.* 2022, 12, 19, 9736 **(Impact Factor = 2.838) (SCI- HEC- W Category)**
10. M. Nadeem, **A. Arshad**, S. Riaz, S.W Zahra, Ashit Kumar Dutta, Moteeb Al Moteri and Sultan Almotairi, “An Efficient Technique to Prevent Data Misuse with Matrix Cipher Encryption Algorithms”, *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.778) (SCI- HEC- W Category)**
11. Zafar A, Aamir M, Mohd Nawawi N, **Arshad A**, Riaz S, Alruban A, Dutta AK, Almotairi S. A Comparison of Pooling Methods for Convolutional Neural Networks. *Appl. Sci.* 2022, 12, 17, 8643 **(Impact Factor = 2.838) (SCI- HEC- W Category)**
12. Nadeem, M.; **Arshad, A.**; Riaz, S.; Zahra, S.W.; Dutta, A.K.; Almotairi, S. A Secure Architecture to Protect the Network from Replay Attacks during Client-to-Client Data Transmission. *Appl. Sci.* 2022, 12, 16, 8143

(Impact Factor = 2.838) (SCI- HEC- W Category)

13. Nadeem, M.; **Arshad, A.**; Riaz, S.; Zahra, S.W.; Dutta, A.K.; Almotairi, S. Preventing the Cloud Networks through Semi-Supervised Clustering from both sides attacks. *Appl. Sci.* 2022, 12, 7583 **(Impact Factor = 2.838) (SCI- HEC- W Category)**
14. M. Nadeem, **A. Arshad**, S.Riaz, S.W Zahra, S. Band, A. Mosavi, "Two Layer Symmetric Cryptography Algorithm for Protecting Data from Attacks", *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.778) (SCI- HEC- W Category)**
15. M. Nadeem, **A. Arshad**, S.Riaz, S.W Zahra, S. Band, A. Mosavi, "Preventing Cloud Network from Spamming Attacks using Cloudflare and KNN", *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.778) (SCI- HEC- W Category)**
16. S. Riaz, **A. Arshad**, Shahab S.Band and A. Mosavi, "Transforming Hand Drawn Wireframes into Front-End Code with Deep Learning", *CMC-Computers, Materials & Continua*, 2022. **(Impact Factor = 3.778) (SCI- HEC- W Category)**
17. M. Nadeem, **A. Arshad**, S. Riaz, S. S. Band and A. Mosavi, "Intercept the Cloud Network From Brute Force and DDoS Attacks via Intrusion Detection and Prevention System," in *IEEE Access*, vol. 9, pp. 152300-152309, 2021. **(Impact Factor = 3.476) (SCI- HEC- W Category)**
18. Nayab, and **A. Arshad**, "A Survey of Image Classification Methods," in *ILMA Journal of Technology & Software Management*, vol 1, pg no. 15-24, 2021. **(HEC- Y Category)**
19. S. Riaz, **A. Arshad** and L. Jiao, "A Semi-Supervised CNN With Fuzzy Rough C-Mean for Image Classification," in *IEEE Access*, vol. 7, pp. 49641-49652, 2019 **(Impact Factor = 3.476) (SCI- HEC- W Category)**
20. **A. Arshad**, S. Riaz and L. Jiao, "Semi-Supervised Deep Fuzzy C-Mean Clustering for Imbalanced Multi-Class Classification," in *IEEE Access*, vol. 7, pp. 28100-28112, 2019 **(Impact Factor = 3.476) (SCI- HEC- W Category)**
21. Riaz S, **Arshad A**, Jiao L. "Fuzzy Rough C-Mean Based Unsupervised CNN Clustering for Large- Scale Image Data", *Applied Sciences*, 2018. **SCI (Impact Factor = 2.838) (SCI- HEC- W Category)**
22. **A. Arshad**, S. Riaz, L. Jiao and A. Murthy, "The Empirical Study of Semi-Supervised Deep FuzzyC- Mean Clustering for Software Fault Prediction," in *IEEE Access*, vol. 6, pp. 47047-47061, 2018. **(Impact Factor = 3.476) (SCI- HEC- W Category)**
23. S. Riaz, **A. Arshad** and L. Jiao, "Rough Noise-Filtered Easy Ensemble for Software FaultPrediction," in *IEEE Access*, vol. 6, pp. 46886-46899, 2018 **(Impact Factor = 3.476) (SCI- HEC- W Category)**
24. **A. Arshad**, S. Riaz, L. Jiao and A. Murthy, "Semi-Supervised Deep Fuzzy C-Mean Clustering for Software Fault Prediction," in *IEEE Access*, vol. 6, pp. 25675-25685, 2018 **(Impact Factor = 3.476) (SCI- HEC- W Category)**
25. **Ali Arshad**, "A Survey on Software Cost Estimation in the Pakistani Software Industry", *IJCER*, 3(1), 13-19, 2014. **(Impact Factor =0.51)**
26. **Ali Arshad**, "A Critical Review of Software Size and Effort Estimation", *IJCER*, 3(2), 96-99, 2014. **(Impact Factor =0.51)**

Articles Published in Conferences

1. **A. Arshad**, M. Hassam, S. Riaz and S. Shamshirband, "Empirical Study of Semi-Supervised Deep Fuzzy C-Mean Clustering Algorithm," *IEEE EUROCON 2021 - 19th International Conference on Smart Technologies*, Lviv, Ukraine, pp. 239-245, 2021 **(Available on IEEE Xplore)**.
2. S. Riaz, **A. Arshad** and L. Jiao, "Rough-KNN Noise-Filtered Convolutional Neural Network for Image

Classification," 3rd International Conference on Information Technology and Intelligent Transportation Systems **(ITITS 2018)**, Xi'an, China 2018. doi: 10.3233/978-1-61499-939-3-265. **(Available on EI Compendex)**

3. **A. Arshad**, S. Riaz, L. Jiao and A. Murthy, "A semi-supervised deep fuzzy C-mean clustering for two classes classification," 2017 IEEE 3rd Information Technology and Mechatronics Engineering Conference **(ITOEC 2017)**, Chongqing, China 2017. doi: 10.1109/ITOEC.2017.8122317 **(Available on IEEE Xplore)**.
4. **Ali Arshad** and Muhammad Usman, "Security at Software Architecture Level, A Systematic Mapping Study", 15th International Conference on Evaluation and Assessment in Software Engineering **(EASE 2011)**, **IET journal**, 2011. doi: 10.1049/ic.2011.0020. **(Available on IEEE Xplore)**

SKILLS

Matlab, SQL Server 2005, Oracle database 10g, ASP.NET, C++, MS Visio, MS Office, SSPS, RFFlow, Software Project Management

HOBBIES

Cricket, Football, Movie Watching, Badminton

Reviewer of Journals

- IEEE Access
- Pattern Recognition

References

Dr. Jamil Ahmad

Professor and Vice Chancellor

Abasyn University, Islamabad, Pakistan

Cell No: 0092-300-5005955, Email: jahmad200@gmail.com

Dr Sultan Daud

Professor National University of Technology, Islamabad, Pakistan.

Cell No: 0092-332-9888992, Email: sultandaud@nutech.edu.pk

Dr. Syed Aziz Shah

Associate Professor Research, Centre for Intelligent Healthcare, Coventry University, London.

Cell No: 00447395404194, Email: syed.shah@coventry.ac.uk