Dr. Muhammad Arif Butt

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Summary

- Dr. Muhammad Arif Butt is an Assistant Professor at University of the Punjab, since 2008.
- His **academic, teaching, administrative and entrepreneurial experience span over 32 years**.
- He has served as In-Charge /Principal of the largest constituent College of University of the Punjab having 185 faculty and staff members and a student body of over 2500.
- As Chief Security Officer planned and executed security to over 45000 on-campus students and 7000 employees located at 5 campuses of the University having a total area of 1800 acres.
- Annual funds management of over 300 million.
- CEO of a startup having 30+ employees and corporate management of over 20 million per year.
- 1st position and University Gold Medal both in undergraduate and graduate degrees.
- Served in the Armed Forces of Pakistan as an officer and has the honor of serving as an Instructor at the School of Infantry and Tactics Quetta – a prestigious training institute of Pakistan Army.

Academic Qualifications

Examinations	Institutions	Year	Division
PhD (CS)	University of the Punjab Lahore, Pakistan	2019	1st
MPhil (CS)	University of the Punjab Lahore, Pakistan	2009	1st **(Gold Medal)**
MSc (CS)	University of the Punjab Lahore, Pakistan	2005	1st **(Gold Medal)**
Graduation	Pakistan Military Academy Kakul	1989	1st
Intermediate	Govt. Science College Lahore	1986	1st
Matriculation	Don BosCo High School Lahore	1985	1st

Experience / Employment History (32 years of professional experience)

2020 – to date	Assistant Professor, Department of Data Science, University of the Punjab, Lahore, Pakistan
2018 - 2020	Worked as In-charge/Principal Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
2008 - 2018	Assistant Professor, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
2005 - 2008	Lecturer, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan

2002 - 2005	Project Manager Star Solutionz, Lahore, Pakistan
2000 - 2002	Project Manager Gates College of Computer Science & Software Engineering, Lahore
1989 – 2000	Served at different field, staff and instructional appointments in Pakistan Army

Awards / Achievements

University **gold medal** in MPhil (Computer Science) from Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan

University **gold medal** in MSc (Computer Science) from Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan

Ranked among the top three best teachers throughout the teaching carrier at Punjab University College of Information Technology, University of the Punjab

Over 200 highly ranked/viewed video lectures on six different subjects available on YouTube channel https://www.youtube.com/c/LearnWithArif/playlists

During the stay in uniform, have the honor to serve in the snowy mountains of Kashmir and Siachin

During the stay in uniform, served as Instructor at School of Infantry & Tactics Quetta, Pakistan

Research & Publications

Books
A. Butt (2010), Taxonomy of IDS: Intrusion Detection using System Call Sequence, VDM Verlag Dr. Müller, ISBN: 3639294092

Journal Articles

20. M. A. Butt, Z. Ajmal, Z. I. Khan, M. Idrees, Y. Javed, , "An In-Depth Survey of Bypassing Buffer Overflow Mitgation Techniques", Appl. Sci., vol. 12, no. 13, pp. 1-30, 2022 (**I.F 2.838, HEC W Category**)

19. M. A. Butt, M. Idrees, and Muhammad Saleem Raza, "Designing Fuzzy Logic Controller for UNIX Fuzzy find Command", VFAST Transactions on Software Engineering, vol. 10, no. 2, pp 17-26. 2022, ISSN 2411-6246 (**HEC Y Category**)

18. H. R. Ahmad, M. Idrees, A. Ahmad, M. A. Butt, S. Shahzad, M. Shahzad, "Unification of Programming Languages", Webology, ISSN 1735-188X, vol. 19, no. 3, pp. 423-457, 2022 (**HEC Y Category**)

17. A. Sohail, M. I. Tariq, S. Ali, M. A. Butt, M. Ismail, and F. Ahmad, "Diabetic Patient's Behavior Observation on Social Media Using Active Surveillance", Journal of Intelligent & Fuzzy Systems, DOI: 10.3233/JIFS-219297 vol. Pre-press, pp. 1-16, 2022 (**HEC X Category**)

16. M. Idrees, M. A. Butt, and A. Ahmad, "Unification of Programming Languages, A Step Towards Visual Programming", International Journal of Next-Generation Computing, vol. 12, no. 4, pp. 507-517, 2021 (**HEC Y Category**)

15. M. Idrees, A. Ahmad, M. A. Butt, and H. M. Danish, "Controlling PowerPoint using Hand Gestures in Python", Webology, ISSN 1735-188X, vol. 18, no. 6, pp. 1372-1388, 2021 (**HEC Y Category**)

14. A. Sohail, A. Haseeb, M. Rehman, D. D. Dominic, and M. A. Butt, "An Intelligent Graph Edit Distance-Based Approach for Finding Business Process Similarities", Computers, Materials & Continua, vol. 69, no. 3, pp. 3603-3618, 2021 (**I.F 4.89, HEC W Category**)

13. A. Ahmad, M. Idrees, M. A. Butt, and H. M. Danish, "BBVPL: A Block-Based Visual Programming Language Built on Google's Blockly", International Journal of Advanced Trends in Computer Science and Engineering, vol. 10, no. 3, pp. 2524-2532, 2021 (**HEC Y Category**)

12. A. Sohail, D. D. Dominic, M. Hijji, and M. A. Butt, "Competency Driven Resource Evaluation Method for Business Process Intelligence", Computers, Materials & Continua, vol. 69, no. 1, pp. 1141-1157, 2021 (**I.F 4.89, HEC W Category**)

11. S. Habib, A. Ashraf, M. A. Butt, and M. Ahmad, "Medical Diagnosis Based on Single-valued Neutrosophic Information", Neutrosophic Sets and Systems, vol. 42, pp. 302-323, 2021 (**HEC Y Category**)

10. M. Akram, G. Ali, A. Butt, and J. C. R. Alcantud, "Novel MCGDM Analysis under m-Polar Fuzzy Soft Expert Sets", Neural Computing and Applications, https://doi.org/10.1007/s00521-021-05850-w, pp. 1-24, 2021 (**I.F 4.774, HEC W Category**)

9. G. Shahzadi, G. Muhiuddin, A. Butt, and A. Ashraf, "Hamacher Interactive Hybrid Weighted Averaging Operators under Fermatean Fuzzy Numbers", Journal of Mathematics, vol. 2021, pp. 1-17, 2021 (**I.F 0.712, HEC Y Category**)

8. A. Ashraf and M. A. Butt, "Extension of TOPSIS Method under Single-Valued Neutrosophic N-Soft Environment", Neutrosophic Sets and Systems, vol. 41, pp. 286-303, 2021 (**HEC Y category**)

7. N. Tahir, M. Asif, S. Ahmad, M. Sheraz, A. Malik, H. Aljuaid, A. Butt, and M. Rehman"FNG-IE: an improved graph-based method for keyword extraction from scholarly big-data", PeerJ Computer Science, https://doi.org/10.7717/peerj-cs.389, pp. 1-24, 2021 (**I.F 3.091, HEC W Category**)

6. M. Akram, G. Shahzadi, A. Butt and F. Karaaslan, "A hybrid decision making method based on q-rung orthopair fuzzy soft Information", Journal of Intelligent & Fuzzy Systems, https://doi.org/10.3233/JIFS-202336, pp. 1-16, 2021 (**I.F 1.851, HEC W Category**)

5. A. Sohail, K. Shahzad, P. D. Dominic, A. Butt, M. Arif and M. I. Tariq, "On Computing the Suitability of Non-Human Resources for Business Process Analysis", Computers, Materials & Continua, vol. 67, no. 1, 2021 (**I.F 4.89, HEC W Category**)

4. S. Habib, S. Wardat, A. Butt, M. Akram, F. Smarandache, "A Neutrosophic Clinical Decision-making System for Cardiovascular Diseases Risk Analysis", Journal of Intelligent & Fuzzy Systems, ISSN 1875-8967, vol. 39, no. 5, pp. 7807-7829, 2020 (**IF 1.851, HEC W Category**)

3. A. Butt and M. Akram, "A new intuitionistic fuzzy rule-based decision-making system for an operating system process scheduler", SpringerPlus/SpringerOpen, vol.5, no. 1, pp. 1-17, 2016 (**IF 1.130, HEC W Category**)

2. A. Butt and M. Akram, "A novel fuzzy decision-making system for CPU scheduling algorithm", Neural Computing and Applications, ISSN 0941-0643, vol. 27, no. 7, pp. 1927-1939, 2016 (**I.F. 4.774, HEC W Category**)

1. M. Akram, S. Shahzad, A. Butt, and A. Khaliq, "Intuitionistic Fuzzy Logic Control for Heater Fans", Mathematics in Computer Science, ISSN 1661-8289, vol. 7, no. 3, pp. 367-378, 2013 (**I.F. 0.76, HEC W Category**)

Research Supervision

PhD Candidates under Supervision
1. PHDCSF16M005 – Muhammad Saad, "Adaptive Heterogeneous Resource Allocation of Containerized Infrastructure"

Graduate (MPhil) Thesis Supervised
1. MSCSF19M024 – Muhammad Ali Tariq, Fuzzification of Virtualized Resources in Cloud computing

2. MSCSF19M015 – Zarafshan Ajmal, "A Survey on By-passing x86-64 Buffer Over Flow Mitigation Techniques"

3. MSGSF16M013 – Muhammad Mubeen Maroof, "Fuzzy GIS Based Impart of Climate Charge on Agriculture Drought"

4. MSGSF17M011– Muhammad Nasir, "Assessment of urban Gentrification in engulfed villages of Lahore using GIS: A Case study of Gohawa Village"

5. MSCSF06M005 – Muhammad Saleem Raza, "Applying Fuzzy Decision-Making Models in Memory Management of Operating Systems"

Undergraduate (BS/MSc) Thesis/Projects Supervised

14. Najam-ul-Saqib, "GraphQL in Scope: An In-Depth Approach on How GraphQL APIs Can Be Exploited". 2020-2021

13. Amina Saif, Hadia Shafiq, "Elxion of Network Analysis, Penetration Testing and Vulnerability Exploitation". 2020-21

12. Huzaifa Khalid, Qurat-ul-Ain, "An In-depth Discussion on Stack Smashing via Buffer Overflow: Bypassing Mitigation Techniques on ARM, MIPS, x86-64". 2020-21

11. Najam-ud-Din, Abdul Hanan, Muhammad Harris, Muteeb Ahmed, "Silk OS: A Linux Distribution", June, 2020.

10. Sami Masood, Maryam Saif, Ahtisham, Komal Shahzadi, Samam Raza, "A survey on Open Source Teaching Operating System and Linux Loadable Kernel Modules", June 2020.

9. Ayesha Amer, Sameen Mehtab, Raveeha Kamran, Zain Rizwan, Zeeshan Tariq, "Survey and Exploitation of Computer System Vulnerabilities and By-passing Buffer Overflow", June 2020

8. Talha Hanif, Faisal, Jahanzeb Khan, "IOT Based Irrigation and Fertilization system with Decision Support", June 2019

7. Muhammad Anas, Hamza Habib, Mutasim, Zain-ul-Abidin, Syed Uzair, "Fuzzified Vision Based Real Time Embedded Entrance Control System", June 2019

6. Waqas, Nabeela, Nabeel, Umer, "Teachers Book, A mobile App", June 2018

5. Adeel, Waqar, Farooq, "A Survey on Network and Web Security Infrastructures, Vulnerabilities and Intrusion Detection System", June 2018

4. Sana, Tehreem, Mariam, "PUCIT: IOT Based Smart Campus with Andorid Control", June 2018

3. Muhammad Mohsin, Anas, Abdullah Waheed, "The Virtual Guardian", June 2018

2. Asab Bashir, Ayaz Khalid, Haider Ali, Abdul Rehman, Adil Farhan, "Design of Campus Versioning System (CVS)", June 2017

1. Abdul Wahab, Muhammad Danish, "Accessing and Enhancing IT Infrastructure of an Organization", June 2017

Services

National Level

| 1. Interviewing panel of Federal Public Service Commission (FPSC), Pakistan | Subject Specialist |
| 2. Technical Education and Vocational Training Authority (TEVTA), Government of the Punjab | IT Advisor |

University Level

1. Member Selection Board, University of the Punjab, Lahore	Subject Specialist
2. Board of Faculty of Science	Member
3. Academic Council	Member

4. PU Convocation Committee	Member
5. Chief Security Officer	All Campuses
6. Board of Faculty of Computing and Information Technology (D/8591 dated 26/08/2021)	Member

Department Level

1. In-Charge/Principal, PUCIT	-
2. Departmental Doctoral Program Committee	Member
3. Departmental Tenure Review Committee (DTRC)	Member
4. Departmental Purchase Committee	Chairman
5. Board of Studies	Member
6. Program Team for Self-Assessment Report (QEC)	Chairman
7. Financial Aid Committee	Member
8. Disciplinary Committee	Chairman
9. Graduate Admission Committee	Chairman
10. Undergraduate Admission Committee	Chairman
11. Degree Coordinator (Computer Science)	-
12. Unfair Means Committee	Member
13 Domain Head Operating System and Computer Architecture	Chairman
14. College Council	Member
15. Sports Society	Chairman
16. Security Committee, PUCIT Old Campus	Chairman
17. Dress Code Committee	Chairman

Courses Taught

Graduate level courses

Code	Course Title
CS-525	Advanced Operating Systems
CS534	Advanced Computer Architecture
DS-522	Tools and Techniques for Data Science *

Undergraduate courses

Code	Course Title
CS-325	Operating Systems *
CS-321	System Programming *
CMP-120	Digital Logic Design
CMP-223	Computer Organization and Assembly Language Programming *
CMP-100	Introduction to Computing

CMP-330 Practical Inter-networking with UNIX TCP/IP *

CMP-140 Programming Fundamentals with C/C++

* Developed Courses with Practical Hands on Labs

References:

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