

# Dr. Abdul Razaq

## Personal Bio – Data

Father's Name:	Muhammad Mukhtar Munawar
Nationality:	Pakistani
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Date of Birth:	June 15, 19983
Address	Abdul Razaq, care of Imam Bakhsh Aheer, near Jamia Masjid Muhammadia, Bismillah Town Jauharabad, District Khushab
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## Qualification

<b>Ph. D Mathematics</b>	<b>Year of Award</b>	<b>2015</b>
	<b>Institution</b>	<b>Quaid-I-Azam University, Islamabad, Pakistan</b>
	<b>Supervisor</b>	<b>Professor Dr. Qaiser Mushtaq</b>
	<b>Area of reseach</b>	<b>Group theory and generalizations, Image encryption, Multimedia Security</b>
	<b>Research Topic</b>	<b>Homomorphic images of circuits in <math>PSL(2,Z)</math>-space</b>
<b>M.Phil Mathematics</b>	<b>Year of Award</b>	<b>2009</b>
	<b>Institution</b>	<b>Quaid-I-Azam University, Islamabad, Pakistan</b>
	<b>Research Topic</b>	<b>On certain orbits in imaginary quadratic fields</b>
<b>M.Sc Mathematics</b>	<b>Year of Award</b>	<b>2006</b>
	<b>Institution</b>	<b>University of Sargodha</b>
<b>B.Sc</b>	<b>Year of Award</b>	<b>2004</b>
	<b>University</b>	<b>University of Sargodha</b>
	<b>Subject</b>	<b>Mathematics A &amp; B, Physics</b>

## Research Papers

1. Mushtaq, Q., & Razaq, A. (2014). Equivalent pairs of words and points of connection. The Scientific World Journal, 2014.
2. Mushtaq, Q., & Razaq, A. (2015). Joining of circuits in  $PSL(2, \mathbb{Z})$ -space. Bull. Korean Math. Soc, 52(6), 2047-2069. **Impact Factor 0.36.**
3. Mushtaq, Q., & Razaq, A.. (2016). Partial proof of Graham Higman's conjecture related to coset diagrams. Bulletin of the Iranian Mathematical Society, 42(2), 353-369. **Impact Factor 0.31.**
4. Mushtaq, Q., & Razaq, A. (2017). Homomorphic Images of Circuits in  $PSL(2, \mathbb{Z})$ -space. Bulletin of the Malaysian Mathematical Sciences Society, 40(3), 1115-1133. **Impact Factor 0.86.**
5. Razaq, A., Yousaf, A., Shuaib, U., Siddiqui, N., Ullah, A., & Waheed, A. (2017). A novel construction of substitution box involving coset diagram and a bijective map. Security and Communication Networks, 2017. **Impact Factor 1.37.**
6. Riaz, A., Razaq, A., & Awan, A. U. (2017). Magnetic field and permeability effects on Jeffrey fluid in eccentric tubes having flexible porous boundaries. Journal of Magnetism, 22(4), 642-648. **Impact Factor 0.83.**
7. Razaq, A., Mushtaq, Q., & Yousaf, A. (2018). The number of circuits of length 4 in  $PSL(2, \mathbb{Z})$ -space. Communications in Algebra, 46(12), 5136-5145. **Impact Factor 0.50.**
8. Razaq, A. (2018) Action of the group  $\langle x, y: x^2 = y^6 = 1 \rangle$  on imaginary quadratic fields. Quasigroups and Related Systems, 26 (2), 139-148.
9. Razaq, A., Al-Olayan, H. A., Ullah, A., Riaz, A., & Waheed, A. (2018). A Novel Technique for the Construction of Safe Substitution Boxes Based on Cyclic and Symmetric Groups. Security and Communication Networks, 2018. **Impact Factor 1.37.**
10. Latif, L., Shuaib, U., Alolaiyan, H., & Razaq, A. (2018). On Fundamental Theorems of t-Intuitionistic Fuzzy Isomorphism of t-Intuitionistic Fuzzy Subgroups. IEEE Access, 6, 74547-74556. **Impact Factor 4.09.**
11. Riaz, A., Al-Olayan, H., Zeeshan, A., Razaq, A., & Bhatti, M. (2018). Mass transport with asymmetric peristaltic propulsion coated with Synovial fluid. Coatings, 8(11), 407. **Impact Factor 2.33.**
12. Riaz, A., Zeeshan, A., Ahmad, S., Razaq, A., & Zubair, M. (2019). Effects of External Magnetic Field on non-Newtonian Two Phase Fluid in an Annulus with Peristaltic Pumping. Journal of Magnetism, 24(1), 62-69. **Impact Factor 0.83.**
13. Mushtaq, Q., Razaq, A., & Yousaf, A. (2019). On contraction of vertices of the circuits in coset diagrams for  $PSL(2, \mathbb{Z})$ , Proceedings – Mathematical Sciences, 129(1), 13. **Impact Factor 0.32.**
14. Razaq, A., & Mushtaq, Q. (2019). On a Certain Class of Fragments in  $PSL(2, \mathbb{Z})$  - Space, Ars Combinatoria, 143 (2019), 135-146. **Impact Factor 0.19.**
15. Nadeem, M., Yousaf, A., Alolaiyan, H., & Razaq, A. (2019). Certain polynomials and related topological indices for the series of benzenoid graphs. Scientific reports, 9. **Impact Factor 4.01.**
16. Razaq, A., Mushtaq, Q., & Yousaf, A. (2019). The Polynomials associated with the fragments of coset diagrams, Journal of the Ramanujan Mathematical Society, 34(3), . **Impact Factor 0.22.**
17. Alolaiyan, H., Yousaf, A., Ameer, M., & Razaq, A. (2019). Non-conjugate graphs associated with finite groups. IEEE Access. **Impact Factor 4.09.**
18. Nadeem, M., Yousaf, A., Razaq, A. On sequences of molecular descriptors related to some counting polynomials of a Benzenoid graph (2020). Util. Math, preprint. **Impact Factor 0.22.**

19. On Characterizations of Quasi Irresolute Topological Loops. **Under Review**
20. A novel group theoretic and graphical approach for designing cryptographically strong nonlinear components of block ciphers. **Under Review**
21. A Group Theoretic Construction of Large Number of AES-like Substitution Boxes. **Under Review**
22. A novel technique to improve nonlinearity of Substitution box without disturbing its mathematical properties. **Under Review**
23. The Number of Homomorphic Images of the Circuits of rank 4 in Coset Graphs. **Under Review**
24. t-Intuitionistic Fuzzification of Lagrange's Theorem of t-Intuitionistic Fuzzy Subgroup. **Under Review**
25. Topological analysis of carbon and boron nitride nanotubes. **Under Review**
26. Some combinatorial data regarding coset diagrams for the modular group. **Under Review**
27. Construction of New S-Box Using Action of Quotient of the Modular Group for Multimedia security. **Under Review**

## Experience

1. August 25, 2012 to-November 30, 2016 Lecturer Mathematics in Higher Education Department, Punjab
2. December 1, 2016 to-Date Assistant Professor Mathematics, University of Education Lahore, Jauharabad Campus

## References

### Professor Dr. Qaiser Mushtaq

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### Dr. Muhammad Aslam

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