

# Dr. Muhammad Aslam Malik

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Address: Department of Mathematics, University of the Punjab, Lahore |

## Profile

Name: Dr. Muhammad Aslam Malik

Discipline: Mathematics

Designation: Professor

Gender: Male

Marital Status: Married

Specialization: Algebra

Address: House #22, Street # 01, Mian Colony, Mughalpura Lal Pul, Lahore.



## Qualification

Degree	Year	Field	Institute   Board/University
B.Sc	1986	Math A&B, Phy.	Government College Sahiwal
M.Sc	1989	Pure Math.	CASPAM, BZU, Multan
M.Phil	1995	Algebra	University of the Punjab, Lahore
Ph.D	2004	Algebra	University of the Punjab, Lahore
Post Doc	2006-07	Algebra	Birmingham University, UK

## 7. CONFERENCES/SEMINARS/WORKSHOPS

Type	Title	National/International	Role	Place	Starting Date	Ending Date	Description
Conference	International Conference on Mathematics	National	Paper Presented	University of Engineering & Technology, Lahore.	06/03/1995	09/03/1995	

Conference	1st World Conference on 21st Century Mathematics .	International	Paper Presented	Abdul Salam School of Mathematics I Science GC University of Lahore.	04/03/2004	08/03/2004	
Seminar	Weekly seminar series	International	Participated/ Attended	School of Mathematics and Statistics, University of Birmingham UK	16/09/2006	09/09/2007	
Conference	3rd World Conference on 21st Century Mathematics	National	Participated/ Attended	LUMS. W, Sector DHA, Lahore.t	06/03/2008	09/03/2008	
Seminar	Weekly Seminar Series	National	Organized	Department of Mathematics, University of the Punjab, Lahore	08/11/2007	15/05/2013	
Conference	4th World Conference in 21st Century Mathematics on March 4-8, 2009,	International	Paper Presented	Abdul Salam School of Mathematics I Science GC University of Lahore.	04/03/2009	06/03/2009	
Conference	National Conference on Mathematics .	National	Participated/ Attended	Department of Mathematics University of the Punjab Lahore	10/02/2010	12/02/2010	
Conference	International Pure Mathematics Conference	International	Participated/ Attended	Quaid-e-Azam university, Islamabad	12/08/2009	15/08/2009	
Conference	11th International Pure Mathematics Conference 2010	International	Participated/ Attended	Quaid-e-Azam University, Islamabad	06/08/2010	08/08/2010	
Conference	5th World conference on 21st Century Mathematics 2011	International	Paper Presented	Abdul Salam School of Mathematical Science GC University of Lahore.	09/02/2011	13/02/2011	

Conference	12th International Pure Mathematics Conference	International	Paper Presented	Quaid-e-Azam University,	29/07/2011	31/07/2011	
Workshop	Spring Workshop On Recent Advances in Graph Theory and Combinatorics,	National	Participated/ Attended	• Participated in Spring Workshop On Recent Advances in Graph Theory and	17/02/2012	19/02/2012	

#### RESEARCH WORK AT POST GRADUATE LEVEL

Title	Durratio	Nature of	Specialization	Institution	Supervisor
Modular Group Action on Certain Quadratic Fields	Three years	MPhil in Mathematics	Algebraic Number Theory	Department of Mathematics University of the Punjab Lahore	Prof Dr Abdul Majeed and Professor Dr SM Husnine
Group Actions on Fields	Five years	PhD	Algebra	Department of Mathematics, University of the Punjab, Lahore	Prof. Dr. Abdul Majeed & Prof. Dr. S.M. Husnine
Symmetric Generation of Rudvalis Group (one of the Sporadic Simle Groups)	One Year	Post Doctorate	Combinatorial Algebra	School of Mathematics, University of Birmingham , Birmingham, UK	Prof. Dr. Robert Turner Curtis
Evaluation of discipline in Government and Private Schools	One year	MEd Secondary Education	Secondary Education	Institute of Education and Research, University of the Punjab Lahore	Rana Abdul Latif and Prof Dr Mushtaq ur Rehman Siddiqui

#### Computer Skills

Computer Knowledge  
Post Graduate Computer Orientation Course  
(PGCOC-10), April- September, 2003 in  
Computer Training Center at HEC, Islamabad  
MS Office

Document Preparation and  
Word Processing:  
(i) LaTeX; (ii) Mathematica (iii) Matlab

\* | MS Windows | MS-Word | MS-Excel | MS-PowerPoint | Internet | In-page |

#### Fields of Interest

Algebra
Group Theory
Number Theory
Fuzzy Theory
Graph Theory

#### Experience

##### Teaching Experience

- Lecturer in the Department of Mathematics, Government Post-Graduate College Sahiwal from 06 April, 1999 to 15 August, 2002.
- Visiting Teacher in the Lahore University of Management Sciences (LUMS), DHA Lahore from 2004 to 2006.
- Assistant Professor in the Department of Mathematics, G.C University Lahore from 16 August, 2002 to 07 November, 2007.
- Associate Professor in the Department of Mathematics, University of the Punjab, New Campus, Lahore from 08 November, 2007 to date.

##### Administrative Experience

- Coordinator of B.S.
- Coordinator of M.Sc.
- Coordinator of M.Phil/Ph.D Programme
- Students Advisor
- In charge Departmental Seminar Series
- in charge Library Department of Mathematics
- Associate Editor, Punjab University Journal of Mathematics, Lahore.

#### Conferences & Seminars Attended

- Presented paper in International Conference on Mathematics March, 1995, University of Engineering & Technology, Lahore.
- Presented paper in 1<sup>st</sup> World Conference on 21<sup>st</sup> Century Mathematics March, 2004, Abdul Salam School of Mathematical Sciences GC University, Lahore.

- Presented Paper in Weekly seminar series held at University of Birmingham UK from September, 2006 to September, 2007.
- Participated in Weekly seminar series held at University of Birmingham UK from September, 2006 to September, 2007.
- Participated in 3<sup>rd</sup> World Conference on 21<sup>st</sup> Century Mathematics on March, 2008, at LUMS. W, Sector DHA, Lahore.
- Participated in Weekly Seminar Series held in Department of Mathematics, University of the Punjab, Lahore during the years 2007 & 2008.
- In-charge Departmental Seminar Series held on each Wednesday, 2009. Seven Faculty Members presented the papers, in 2009, 18 M.Phil Students presented the papers, in 2009, Six Ph.D Students Presented the Papers, in 2009.
- Participated in 4<sup>th</sup> World Conference in 21<sup>st</sup> Century Mathematics on March 4-8, 2009, Abdul Salam School of Mathematical Science GC University of Lahore.
- In-charge Departmental Seminar Series held on each Wednesday, 2010, 8 Faculty members presented the papers, 2010, 20 M.Phil Students Presented the Papers, 2010, 07 Ph.D Students Presented the Papers, 2010.
- Participated National Conference on Mathematics held at Department of Mathematics University of the Punjab Lahore, February, 2010.
- Participated in International Pure Mathematics Conference held at Quaid-e-Azam university, Islamabad in August, 2009.
- Participated and presented research paper in 11th International Pure Mathematics Conference held at Quaid-e-Azam University, Islamabad on 6-8 August, 2010.
- Presented paper on Finite Group in the Seminar Series Department of Mathematics.
- Presented paper in 5th World conference on 21st Century Mathematics February 09-13, 2011, Abdul Salam School of Mathematical Science GC University of Lahore.
- In-charge Departmental Seminar Series held on each Wednesday, 2011, 8 Faculty members presented the papers, 2011, 20 M.phil Students presented the papers, 2011, 07 Ph.D Students Presented the Papers, 2011.
- Presented paper on Finite fields in the Seminar Series Department of Mathematics.
- Participated and presented research paper in 12th International Pure Mathematics Conference held at Quaid-e-Azam University, Islamabad on 29-31 July 2011.
- In-charge Departmental Seminar Series held on each Wednesday, 2012. 7 Faculty members presented the papers, 2012  
16 M. Phil Students Presented the Papers, 2012  
2 Ph.D Students Presented the Papers, 2012.

- Participated in Spring Workshop On Recent Advances in Graph Theory and Combinatorics, held at Centre for Advanced Studies in Mathematics LUMS Lahore in collaboration with Abdus Salam School of Mathematical Sciences, Lahore on February 17, 2012
- Participated and presented research paper in 13<sup>th</sup> International Pure Mathematics Conference held at Quaid-e-Azam University, Islamabad on 1-3 Sept, 2012
- Participated in 5<sup>th</sup> World Conference in 21<sup>st</sup> Century Mathematics on March, 2013, Abdul Salam School of Mathematical Science GC University of Lahore.
- Participated and presented research paper in 14<sup>th</sup> International Pure Mathematics Conference held at Quaid-e-Azam University, Islamabad on 23 -25 August, 2013

### Research & Publications

Sr. No	Title of Research Paper	Name of journal/Volume/Page No	ISSN/Impact Factor/category	Year of publication
01.	Modular Group Action on Certain Quadratic Fields.	PUJM .Vol. 28, p 47-68.	1016-2526/X	1995
02.	On Invariant subsets of certain Quadratic Fields under Modular Group Action,	PUJM, Vol. 29, p20-26,	1016-2526/X	1996
03.	The orbits of $Q^*(\sqrt{p})$ , $p = 2$ or $p \equiv 1 \pmod{4}$ under the action of the Modular Group,	PUJM, Vol. 33, p37-50,	1016-2526/X	2000
04.	The orbits of $Q^*(\sqrt{p})$ , $p \equiv 3 \pmod{4}$ under the action of the Modular Group,	PUJM, Vol. 36, p1-14,	1016-2526/X	2003-2004
05.	Action of the group $M = \langle x, y : x^2 = y^6 = 1 \rangle$ on certain real quadratic fields.	PUJM, Vol. 36, p71- 88	1016-2526/X	2003-2004
06.	Properties of real quadratic irrational numbers under the action of the group $H = \langle x, y : x^2 = y^4 = 1 \rangle$	Studia Scientiarum Mathematicarum Hungarica Vol. 42(4), p371-386 .	0081-6906/ 0.254	2005
07.	On Ambiguous Numbers of an Invariant subset $Q^*(\sqrt{k^2 m})$ of $Q(\sqrt{m})$ under the Action of the Modular Group $PSL(2, Z)$	Studia Scientiarum Mathematicarum Hungarica Vol.42(4), p401 - 412.	0081-6906/ 0.254	2005
08.	Intransitive action of the Modular group $PSL(2, Z)$ on a subset $Q^*(\sqrt{k^2 m})$ of $Q(\sqrt{m})$ .	PUJM, Vol. 37, p31-38.	1016-2526/X	2005

09.	Symmetric Generation of the Rudvalis Group,	Journal of London Mathematical Society, Vol. (2) 82, p643-662	0024-6107 0.828	2010
10.	G-subsets and G- orbits of $Q^*(\sqrt{n})$ under the action of the Modular Group,	PUJM, Vol. 43, p75-84.	1016-2526/X	2011
11.	Invariant subsets of $PLQ(\sqrt{m})$ under the action of $M = \langle x, y : x^2 = y^6 = 1 \rangle$	Pakistan Journal of Science, Vol. 64 No. 3 Sep, p247-257.	0030-9877/X	2012
12.	Orbits of $Q^*(\sqrt{k^2 m})$ under the action of the Modular Group $PSL(2, Z)$	U. P. B. Sci. Bull, Series A, Vol. 74 (4), p109-116.	1223-7027 0.268	2012
13.	Action of the Mobious Group $M = \langle x, y : x^2 = y^6 = 1 \rangle$ on Certain Real Quadratic Fields.	PUJM, Vol. 44, p31-37.	1016-2526/X	2012
14.	Certain H-subsets of $Q(\sqrt{m}) \setminus Q$ under the action of $H = \langle x, y : x^2 = y^4 = 1 \rangle$ ,	Pakistan Journal of Science, Vol. 64 No. 1 March, p67-74	0030-9877/X	2012
15.	Intuitionistic fuzzy BCI-commutative ideals in BCI-algebras	Pakistan Journal of Science, Vol. 64 No. 4 December, p353-358,	0030-9877/X	2012
16.	On Simple Graphs Arising From Exponential Congruences,	Journal of Applied Mathematics, Volume , Article ID 292895, 10 pages	1110-757 0.834	2012
17.	G-subsets of an Invariant subset $Q^*(\sqrt{k^2 m})$ of $Q(\sqrt{m}) \setminus Q$ under the Modular Group action.	doi:10.1155/2012/292895, Utilitas Mathematica , p91377-387.	0315-3681. 0.316	2013
18.	Fuzzy hyper p-ideas of hyper BCK-algebras	Filomat Vol.29(8): p1769-1780	0354-5180 0.603	2015
19.	Operations on single valued neutrosophic graphs with application	Journal of Intelligent & Fuzzy Systems, Vol.32 (3), p2137-2151 DOI:10.3233	JIFS-161944 1.42	2017
20.	Regularity of graphs in single valued neutrosophic environment	Journal of Intelligent & Fuzzy Systems, Vol.33(1): p529-542 DOI:10.3233	JIFS-161960 1.42	2017

21.	Hypergraphs and Transversals of Hypergraphs in Interval-valued Intuitionistic Fuzzy Setting	J. of Mult.-Valued Logic & Soft Computing, Vol.30(4-6): p399–417	1542-3980 0.613	2018
22	Reformulated Zagreb Indices of Some Derived Graphs	Mathematics Vol.7( 366) doi:10.3390/math7040366	2227-7390 1.105	2019
23	On the Minimal General Sum-Connectivity Index of Connected Graphs Without Pendant Vertices	IEEE Access, Vol. 7: p136743-136751	2169-3536 4.098	2019
24	Distance Measures for Multiple-Attributes Decision-Making Based on Connection Numbers of Set Pair Analysis With Dual Hesitant Fuzzy Sets	IEEE Access, Vol. 8: p9172-9184	2169-3536 4.098	2020
25	Icosahedral Group and Classification of $PSL(2, \mathbb{Z})$ -orbits of Real Quadratic Fields	Journal of Mathematics. Vol 2020; p1-10. <a href="https://doi.org/10.1155/2020/9568254">https://doi.org/10.1155/2020/9568254</a> .		2020
26	Notion of Complex Pythagorean Fuzzy Graph with properties and Application	J. of Mult.-Valued Logic & Soft Computing, Vol.30(4-6): p553–606	1542-3980 0.81	2020
27	Topological Properties of Supramolecular Chain of Different Complexes of N-Salicylidene-L-Valine	Polycyclic Aromatic Compunds	2.195	2021
28				2021
29				2022



27	Real Quadratic Irrational Numbers and Modular group Action,	Southeast Asian bulletin of mathematics, Vol.35(3): p439-445	0129-2021 ISI Journal	2011
28	Some results on fuzzy hyper BCK-ideals of hyper BCK-algebras	Indian Journal of Science and Technology, Vol.8(S3): p10-15	0974-5645 ISI Journal	2015
29	Soft h-ideals of soft BCI-algebras	Indian Journal of Science and Technology, Vol.8(53): p16-23	0974-5645 ISI Journal	2015
30	On the metric dimension of two families of convex polytopes	Afrika Matematika, Vol.5: p1284-1291	1012-9405 DOI: 10.1007/s13370-015-0336-5 ISI Journal	2016
31	Regular bipolar single valued neutrosophic hyper graphs	Neutrosophic sets and systems, Vol 13.p 84-89	2331-6055 E-ISSN: 2331-608X ISI Journal	2016
32	Regular single valued neutrosophic hyper graphs	Neutrosophic sets and systems, Vol. 13 p 18-23	2331-6055 E-ISSN: 2331-608X ISI Journal	2016
33	Regular and totally regular interval valued neutrosophic hyper graphs	Critical Review Vol.13, P 5-18	0891-3811 E-ISSN: 1933-8007 ISI Journal	2016
34	Isomorphism's of single valued neutrosophic hyper graphs	Critical Review, Vol.13, p 19-40	0891-3811 E-ISSN: 1933-8007 ISI Journal	2016
35	Isomorphism's of interval valued neutrosophic hyper graphs	Critical Review Vol.13, P 41-66	0891-3811 E-ISSN: 1933-8007 ISI Journal	2016

36	Single valued neutrosophic trees	TWMS Journal of Applied and Engineering Mathematics Vol.8(1), p 255-266	2146-1147 ISI Journal	2018
37	Single valued neutrosophic line graphs	TWMS Journal of Applied and Engineering Mathematics Vol.8(2), p 483-494	2146-1147 ISI Journal	2018
38	Reduced Quadratic Irrational Numbers and Types of G-circuits with Length Four by Modular Group	Indian Journal of Science and Technology, Vol 11(30), p1-7	0974-6846 0974-5645 ISI Journal	2018
39	Classification of Types of PSL(2, Z)-circuits having Length six	Indian Journal of Science and Technology, Vol 11(42), p1-18	0974-6846 0974-5645 ISI Journal	2018
40	Gutman Index of Some Derived Graphs	Advances and Applications in Discrete Mathematics Vol.20(1), p 165-184	0976-1658 ISI Journal	2019
41	Special types of single valued neutrosophic graphs	TWMS Journal of Applied and Engineering Mathematics Vol.8(2), p 341-352	2146-1147 ISI Journal	2019
42	Certain types of graphs in interval-valued intuitionistic fuzzy setting	TWMS Journal of Applied and Engineering Mathematics	In press	2019
43	Bipolar fuzzy graphs based on the product operator	TWMS Journal of Applied and Engineering Mathematics	In Press	2019
44	The classes of bipolar single valued neutrosophic graphs	TWMS Journal of Applied and Engineering Mathematics	In Press	2019

45	Properties of Circuits in Coset diagram by Modular Group,	Indian Journal of Science and Technology. 2020; 13(14), p1458-1469. <a href="https://doi.org/10.17485/IJST/v13i14.7">https://doi.org/10.17485/IJST/v13i14.7</a> .	0974-6846 0974-5645 ISI Journal	2020
46	On circuit structure of $PSL(2, \mathbb{Z})$ -orbits of length eight .	Indian Journal of Science and Technology. 13(22), p2220-2228. <a href="https://doi.org/10.17485/IJST/v13i22.779">https://doi.org/10.17485/IJST/v13i22.779</a>	0974-6846 0974-5645 ISI Journal	2020
47	Primitive Representations and the Modular Group 2020; 13(25), 2547-2557. <a href="https://doi.org/10.17485/IJST/v13i25.66">https://doi.org/10.17485/IJST/v13i25.66</a> .	Indian Journal of Science and Technology.	0974-6846 0974-5645 ISI Journal	2020
48	Symmetries of Icosahedral Group and Classification of G-Circuits of Length six	Indian Journal of Science and Technology. 13(27), p2797-2810.	0974-6846 0974-5645 ISI Journal	2020
49	Finite GS-quasigroups,	Quasigroups and Related Systems Vol.18, P 1-6.	1561-2848	2010.
50	On Ambiguous Numbers of an Invariant subset $Q^*(\sqrt{n})$ of $Q(\sqrt{n})$ where $n = p_1^{2u_1} p_2^{2u_2} p_3^{2u_3}$ , under the action of the $Q(\sqrt{m})$	Ist World Conference on 21 <sup>st</sup> century Mathematics 2004 held at SMS, G.C.U Lahore, p100-106	1817-2725/X Journal of Prime Research in Mathematics	2004
51.	Some Invariant subsets of $Q^*(\sqrt{n})$ under the action of $PSL(2, \mathbb{Z})$ ,	International Mathematical Forum Vol. 6 ( 32), .p1557-1565,	1312-7594	2011
52	Intuitionistic fuzzy BCI-implicative ideals in BCI-algebras ,	International Mathematical Forum Vol. 6 (47), p2317-2334,	1312-7594	2011
53	Some Results on Intuitionistic fuzzy BCI-positive implicative ideals in BCI-algebras	International Mathematical Forum Vol. 6, (47),.p 2335-2347	1312-7594	2011

54	The graph $\Delta_{2n-1}$ is an induced subgraph of a Johnson Graph,	International al Contemporary Mathematical Sciences, Vol. 7 (8), p369-376,	1312-7586	2012
49	Some Results on Induced Subgraphs of Johnson Graphs,	International Mathematical forum, Vol. 7 (9), p445-454	1312-7594	2012
55	An Account of Congruences Mod $P^k$ Using Halley's Method	World Applied Sciences Journal Vol.16 (11), p1626-1630,	1818-4952.	2012
56	A Classification of the Real Quadratic Irrational Numbers $\frac{a+\sqrt{n}}{c}$ of $Q^*(\sqrt{n})$ w. r.t Modulo $3^r$	International Mathematical Forum, Vol. 7 (39), p1915-1924	1312-7594	2012
57	Action of $G$ and $M$ on $Q(\sqrt{m})$ and Algorithmic Implementation for Group Actions,	Journal of Hyper Structures, Vol.1(1): p41-51	22518436	2012
58	Modular group action on quadratic field by linear congruence	Nov Sad J Math, Vol.42(2): p133-143	1450-5444	2012
59	$Q(\sqrt{m}) \setminus Q$ under the action of $PSL(2, Z) \cap \langle x, y : x^2 = y^6 = 1 \rangle$ ,	Research Journal of Applied Sciences, Engineering and Technology, 5(6): p1916-1922,	2040-7467.	2013
60	Quadratic Irrationals under the action of subgroups of hecke group $H(\sqrt{3})$ .	Journal of basic and applied scientific research, Vol.3(2): p115-122,	2090-4304	2013
61	On orbits of $Q(\sqrt{m}) \setminus Q$ under the action of hecke group $H(\sqrt{2})$ .	Middle-East Journal of Scientific Research, 15(12): p1641-1650,	1990-9233	2013
62	Quadratic fields under the action of subgroups of $M$ ,	International journal of modeling and optimization, Vol.3(3): p283-287	2010-3697	2013
63	On subsets of $Q(\sqrt{m}) \setminus Q$ under the action of Hecke groups $H(\lambda_q)$ .	Applied Mathematics, 5: DOI 10.1007/s 13370-015-0336-p51284-1291.	2152-7393	2014
64	Soft BCI-commutative ideals of soft BCI-algebras	World Applied Sciences Journal, Vol.32 (9) : p1996-2004,	1818-4952	2014
65	Soft BCI-positive implicative ideals of soft BCI-algebras	Scientiae Mathematicae Japonicae online e, Vol.28:p57-78	1346-0862	2015

66	Fuzzy hyper BCK-implicative ideals of hyper BCK-algebras	Scientiae Mathematicae Japonicae online e, Vol.28:	1346-0862	2015
67	On some properties of Soft $\alpha$ -ideals	Journal of Applied Mathematics and Informatics, Vol. 33(5): p 671-686	2234-8417	2015
68	Certain types of the orbits of real quadratic fields by hecke groups	Mathematical Sciences Letters Vol.5(1), p 93-97.	2090-9624	2016
69	Special types of bipolar neutrosophic graphs	Annals of Fuzzy Mathematics and Informatics Vol 14.p. 55–73	2093-9310/ 2287-6235 ISI Journal	2017
70	Some properties of single valued neutrosophic graph with application in decision making.	International Journal of Advanced Intelligence Paradigms	accepted	2019
71	Bipolar Fuzzy Graphs Based on the Product Operator	TWMS Journal of Applied and Engineering Mathematics	accepted	2019
72		TWMS Journal of Applied and Engineering Mathematics	accepted	2019
73	Properties of vague graph with application of vague set in medical diagnosis	U. P. B. Sci. Bull, Series A,		2019
74	Minimal doubly resolving sets and strong metric dimension of flower snarks and antiprism graphs			In process
75	Fuzzy hyper BCK-commutative ideals of hyper BCK-algebras			In process
76	Strongly Irregular Bipolar Fuzzy Graphs			In process

#### Ph.D Scholars Supervised

Sr. No.	Name of Student	Title of Thesis
1.	Mr. Muhammad Riaz	Quadratic Fields Under the Action of two Generator Groups. Session 2008 (Completed)
2.	Mr. Hafiz Asim Zafar	The Action of Hecke Groups on Real and Imaginary Quadratic Fields Session 2010 (Completed)
3.	Mr. Muhammad Touqeer	Applications of hyperstructures and soft sets in ideal theory of BCK/BCI-algebras Session 2011

		(completed)
4.	Mr. Arbab Abdul Sattar	On Automata Trees and Groups (completed)
5.	Miss Sumera Naz	Extensions Of Fuzzy Graphs And Their Applications Session 2013 (Completed)
6.	Mr. Sajjad Ali	Reduced Quadratic Irrational Numbers and G-Circuits of Modular Group Session 2014 (completed )
7.	Mr. Muhammad Aamir Javed	Properties of Circuits in Coset Diagrams by Modular Group Session 2014 (Continued)
8.	Mr. Muhammad Nadeem Bari	Binary Quadratic Forms and Group Actions on Fields Session 2014 (Continued)
9.	Miss Nousheen Sohail	Decision Making Methods on Dual Hesitant Fuzzy Sets and its application Session 2016 (Continued)

### M.Phil Students Suprvised

Sr. No.	Name of Student	Title of Thesis
1.	Mr. Muhammad Azam	Graphical Representation of Certain Algebraic Structures. Session 2004-2005
2.	Mr. Hafiz M Asim Zafar	A Classification of Real Quadratic Irrational Numbers and Modular Group Action. Session 2007-2009
3.	Ms. Farkhanda Afzal	Real Quadratic Fields under the action of Mobious Groups. Session 2007-2009
4.	H.M. Khalid Mahmood	Classification of the elements of $Q^*(\sqrt{n})$ via Congruences and the Modular group $PSL(2, Z)$ . Session 2008-2009
5.	Miss Amtul Mubeen	The Partition of Real Quadratic Field Under the Action of Mobious Group H. Session 2008-2009
6.	Ms. Madiha Qayyum	Quadratic Number Field Under the Action of Two Generated Groups. Session 2008-2009
7.	Miss Marriam Fayyaz	Imaginary Quadratic Fields and the Group $M = \langle x, y: x^2 = y^2 = 1 \rangle$ . Session 2008-2009
8.	Mr. Hafiz Mutee ur Rehman	Fields Extensions and the Modular Group Action. Session 2008-2009
9.	Ms. Tayyaba Naseem	H-orbits of a subset $Q''(\sqrt{k^2m})$ of $Q(\sqrt{m})$ where H is the mobios group. Session 2008-2009
10.	Miss Qamar Afzal	Modular Arithmetic of Real Quadratic Irrational Numbers. Session 2009-2010
11.	Mr. Intizar Hussain	G- Subsets of the Real Quadratic Fields by the Modular Group. Session 2009-2010
12.	Ms. Nazia Dilshad	Certain Orbits of $Q(\sqrt{m})$ Under the Action of Two Generator Groups. Session 2009-2010
13.	Miss Nosheen Goshi	Invariant subsets of $PLQ(\sqrt{m})$ under the action of Mobious groups. Session 2010-2011
14.		Transitive G-subsets of Real Quadratic Fields

	Miss Aneesa Mughal	under the Modular group Action. Session 2010-2011
15.	Mr. Akbar Ali	Some Results on Induced Sub graphs of Johnson Graphs. Session 2010-2011
16.	Muhammad Touqeer	Fuzzy Ideals of BCI-Algebras. Session 2010- 2011
17.	Miss. Saima Sadaqat	Classification of transitive $G$ -subsets of $Q(\sqrt{m})$ under the action of $PSL(2, Z)$ Session 2011- 2012
18.	Mr. Muhammad Sajid	Classification of $G$ -orbits of $Q(\sqrt{m}) \setminus Q$ under the action of Modular Group Session 2011-2012
19.	Mr. M. Farooq Shah	On Special Solvable Groups Session 2012-2013
20.	Miss. Tahira Sadiqa	Fixed Points of Real Quadratic Fields under Modular Group Action Session 2012-2013
21.	Miss. Sumera Naz	Continued fractions and group $PSL(2, Z)$ Session 2012-2013
22.	Mr. Nadeem Bari	Binary Quadratic forms and Pell's equations in Modular group Session 2012-2013
23.	Miss. Rabia Kanwal	Behaviour of reduced numbers in the coset diagrams of modular group Session 2013-2014
24.	Miss. Musarvarah Sarwar	Metric invariance in flower snarks and some families of convex polytopes Session 2013-14
25.	Miss. Qurat ul Ain Muneer	On the lattice graphs of $Z_n$ and some families of generalized quaternion groups Session 2013-14
26.	Miss. Sundas Shahzadi	Determination of reduced quadratic irrationals in invariant subsets of $Q(\sqrt{m})$ under the modular group action Session 2013-2014
27.	Mr. Muhammad Amir Javed	Characterizations of Circuits of Different Lengths of Ambiguous Numbers in Coset Diagrams Session 2013-2014
28.	Mr. Niamat Ali	Reduced length of $G$ -orbits of $Q(\sqrt{m})$ under modular group action Session 2014-2015
29.	Mr. Babar Hussain	Distribution of reduced numbers in coset diagrams Session 2014-2015
30.	Mr. M Haris Mateen	Mobious Group generated by two elements of order 2, 4 and Reduced quadratic Irrational numbers Session 2015-2016
31.	Mr. Mehran Khan	Two Generator Subgroups of Hecke groups acting on extended quadratic fields Session 2015-2016
32.	Miss. Hina Ramzan	Non Commuting graphs of groups Session 2015-2016
33.	Miss. Fatima Nawaz	Detection of Reduced Quadratic Irrational Numbers and Two Generator Groups Session 2016-2017
34.	Mr. Bahadur Ali	On the Topological Indices of Some Derived Graphs Session 2016-2017
35.	Mr. Ali Hassan	Studies on Neutrosophic Graphs and Hypergraphs Session 2016-2017
36.	Mr. Muhammad Adnan	continued fractions and $G$ -orbits of $PLQ(\sqrt{m})$ under the action of $PSL(2, Z)$ Session 2016-17

37.	Miss Kahkashan	Types of G-circuits up to length 4 by Modular group and continued fraction Session 2017-18
38.	Miss Ishrat Noureen	Types of G-circuits up to length 6 by Modular group and continued fraction Session 2017-18
39.	Miss Gulfishan Mahek	Types of G-circuits up to length 8 by $PSL(2, Z)$ and continued fractions Session 2018-2019
40.	Miss Tahira Batool	Applications of Bondage Number in Intuitionistic Fuzzy Graphs Session 2018-2019
41.	Mr. Muhammad Shoaib	A few properties of different graphs and their applications Session 2018-2019
42.	Mr. Zahid Mehmood	Base Polynomials for Schultz Invariants of Linear Phenylene and Benzene Session 2018-2019

#### PRESENT POSITIONS

1. Faculty Member, Department of Mathematics, University of the Punjab Lahore, Pakistan.
2. Member, Board of Studies in Mathematics, University of the Punjab, Lahore, Pakistan.
3. Associate Editor, Punjab University Journal of Mathematics, Lahore, Pakistan.
4. Member, Board of Science Faculty, University of the Punjab, Lahore, Pakistan.
5. Coordinator Departmental BS (Hons) Program, University of the Punjab Lahore, Pakistan.
6. Acting Chairman, Department of Mathematics, University of the Punjab, Lahore.

#### MEMBERSHIP OF LEARNED SOCIETIES

1. Life Member, Punjab Mathematical Society.
2. General Secretary, 2008 to 2015. Punjab Mathematical Society.
3. Vice President, 2015 to date. Punjab Mathematical Society.