

Curriculum Vitae: Akhlaq Ahmad Siddiqui

B Sc, B Ed, M Sc, M Phil, PSUTTP (Pak), EAP, ENAS, Ph D (UK)



Best Teacher at GC University, Lahore, declared by University Grants Commission of Pakistan (2000)
Ex-Chairman, Department of Mathematics at GC University, Lahore, Pakistan (2001-2004)
Ex-Director General (officiating), School of Mathematical Sciences, GC University, Lahore, Pakistan (2003)
Ex-Chairman, Department of Mathematics and Statistics at The University of Lahore, Lahore, Pakistan (2005-2006)
Ex-Chairman, Department of Mathematics at International Karakoram University, Gilgit, Pakistan (2008)
Teaching and supervising research in Mathematics at the university/graduate level (since 1985);
Supervised several M Sc / M Phil / PhD theses
Professor of Mathematics (since 2002); currently, Professor of Mathematics at King Saud University, Riyadh-KSA (since 2008)

My Objective: Doing Mathematics → Promoting Rationalism → Achieving Peace & Prosperity

A Dream Being Realized: During my university student life, I dreamt of establishing a top class comprehensive school of mathematical sciences in Pakistan; I had been thinking and asking various effective professionals for the same. Fortunately, when I was Chairman of Mathematics Department at the GC University, Lahore, the Vice Chancellor's conference in its meeting, held on 11 August 2001, decided to establish a world class School of Mathematical Sciences at the GC. For this purpose, I consulted all the available top mathematicians of Pakistan by holding a workshop on establishment of the SMS and prepared a detailed proposal for the same. My dream of establishing the SMS was realized in 2003; the university also assigned me to work as its officiating Director General. By now, it has been well established, called Abdus Salam School of Mathematical Sciences (ASSMS). It is rapidly growing: already produced more than a century of PhDs and has got honoured in 2011 by being named as one of three emerging regional centres of excellence by the European Mathematical Society. I am thinking what the mathematical sciences in Pakistan should be like for its future economic & technological development, and in turn the peace & prosperity!

Personal Data

Name: Akhlaq Ahmad Siddiqui

Father Name: Ishtiaq Ahmad Siddiqui (Late)

Date & Place of Birth: March 15, 1961; Multan-Pakistan

Nationality: Pakistani

Field of Specialization: Mathematics / Functional Analysis / Jordan Banach *-algebras & JB*-triples

Present Position: Professor of Mathematics

Present Employer: King Saud University

Present Postal Address: Department of Mathematics, College of Science, King Saud University,
P. O. Box No. 2455, Riyadh-11451, Kingdom of Saudi Arabia.

Permanent Postal Address: 474-B, Gulgasht Colony, Multan, Pakistan.

Permanent Residence: 266 Overseas-I, Bahria Town, Lahore-Pakistan.

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Academic Degrees in Mathematics

- **Ph D** in Mathematics / Functional Analysis, Heriot-Watt University, Edinburgh-UK, 1996.
- **M Phil** in Mathematics (1st Position), Bahauddin Zakariya University, Multan-Pakistan, 1988.
- **M Sc** in Mathematics, Bahauddin Zakariya University, Multan-Pakistan, 1984.
- **B Sc** in Mathematics, Bahauddin Zakariya University, Multan-Pakistan, 1980.

Professional Degree / Certificates / Trainings

- **B Ed** with specialization in Mathematics (1st Position), Bahauddin Zakariya University, Multan-Pakistan, 1981.
- Pre-Service University Teachers Training Programme (**PSUTTP**), National Academy of Higher Education, University Grant Commission, Islamabad-Pakistan, 1992.
- Attended the course "English for Academic Purposes" (**EAP**), Institute for Applied Language Studies, University of Edinburgh, UK, 1992.
- Attended the course "English for Natural & Applied Sciences" (**ENAS**), at the Institute of Applied Language Studies, University of Edinburgh, UK, 1992.
- Attended the Workshop on Leading a Doctoral Mathematics Department in the 21st Century, held at LUMS, Lahore-Pakistan, 2005.

Administrative Experience

- Chairman, Department of Mathematics, International Karakoram University, Gilgit, Pakistan, 2008.
- Designed M Phil leading to Ph D and 4 years B Sc (honours) degree programmes in Mathematics for International Karakoram University, Gilgit, 2008.
- Chairman, Department of Mathematics and Statistics, The University of Lahore, 2005 - 2006.
- Designed M Sc, M Phil leading to Ph D and 4 years B Sc (honours) degree programmes in Mathematics for The University of Lahore, 2005.
- Chairman, Department of Mathematics, GC University, Lahore, 2001 - 2004.
- Member of the BOG, SMS (now ASSMS), GCUL; 2003-04.
- Chairman of the Inter-universities Faculty Board (IUFB, Mathematics), Punjab, 2003-2004.
- Prepared proposal for the establishment of the National Centre for Mathematics (NCM) at GC University, Lahore, 2003.
- Officiating Director General of the SMS GCUL, 2003.
- Member of the SMS' Statutes Review Committee, 2003.
- Prepared comprehensive proposal for the establishment of the School of Mathematical Sciences (SMS), at GC University, Lahore, 2001.
- Coordinator of M Phil/ Ph D programs in Mathematics, G C University, Lahore, 2001-2004.
- Designed M Phil and B Sc (honours) degree programmes in Mathematics for GC University, 1999.
- Chairman of the Auction Committee, GC University, Lahore, 2001-02.
- In-charge of the General Time Table, Government College, Lahore, 1999.
- Member/ Convener of various academic/administrative committees / boards in GCUL from 1999 to 2004 and The University of Lahore from January 2005 to August 2006.
- Member of the Discipline Committee, GC University, Lahore, 2000-2004.
- Member of the Discipline Committee, The University of Lahore, 2005-2006.
- Superintendent of the Usman Hall at B Z University, Multan, 1990-1992.

Memberships of Learned Societies

- Member of the Pakistan Association for the Advancement of Science (PAAS); since 1987.
- Member of the Zakariyan Mathematical Society (ZMAS), Pakistan; since 1990.
- Member of the Edinburgh Mathematical Society (EMS), UK; 1995-1996
- Convener of the Board of Studies (Mathematics), GC University, Lahore; 2001-2004.
- Member of the Board of Studies in Mathematics, Punjab University, Lahore; 2002-2004.
- Member of the Academic Council, GC University, Lahore; 2002 to 2004.
- Member of the Academic Council, Leads Institute of Management Sciences, Lahore; 2000-03
- Member of the National Curriculum Review Committee, Pakistan; 2000-03.
- Member of the Working Group on Curriculum Pre-Structure (under SCHE); 2002.
- Examiner in Mathematics for FPSC/ CSS, 2001-2004.
- Member selection boards of GC University-Lahore (2001-2004); UET-Lahore (2001-2004); Gift University-Gujranwala (2001-2004); Aligarh Educational Trust-Lahore (2001-2004); The University of Lahore-Lahore (2005-2006); International Karakoram University-Gilgit (2008).
- Member Research Committee, at GC University; 2000-2004.
- Member Academic Committee, SMS GCUL; 2003-04.
- Convener of Board of Studies in Mathematics, University of Lahore; 2005-2006.
- Associate Member of Centre for Advanced Studies in Mathematics, LUMS, Lahore; since 2005.
- Member of the Punjab Mathematical Society, Pakistan; since 2000.

Areas of Special Interest in Mathematics

Jordan Algebras, Quasi Jordan Algebras, Functional Analysis / Associative & Non-associative Topological Linear Algebras / Banach Algebras / Banach Jordan Algebras / C^* - & JB^* -algebras, JB^* -triples, Quasi Jordan Banach Algebras Fixed Point Theory, BCK & BCI-algebras, Axiomatic Set Theory / Principal of Continuous Induction.

Areas in Mathematics Taught

Mathematical Logic & Foundation of Mathematics, Axiomatic Set Theory, Discrete Mathematics, Continuous Induction, Calculus, Linear Algebra, Mathematical Statistics, Topology, Real Analysis, Complex Analysis, Measures & Integration, Numerical Analysis, Group Theory, Graph Theory, Categories & Automata, Jordan Algebras, Quasi Jordan Algebras, Functional Analysis, Topological Vector Spaces, Banach Algebras / Jordan & Quasi Jordan Banach Algebras, C^* -algebras, JB^* -algebras, JB^* -triples.

Teaching Experience

- Teaching various courses of Mathematics to B Sc, M Sc and Ph D classes at King Saud University, Riyadh-Saudi Arabia; as Professor since November 2008 to date.

- Taught General Topology and Functional Analysis to M Sc / B Sc classes at International Karakoram University, Gilgit-Pakistan; as Professor during the summer 2008.
- Taught various degree courses of Mathematics at the Prince Sultan University, Riyadh, Saudi Arabia; as Associate Professor from February 2007 to August 2008.
- Taught Mathematics courses to B Sc and M Sc classes at G C University, Lahore, as Professor from September 2006 to February 2007.
- Taught various courses of Mathematics to BCS, BEE and Ph D/ M Phil students at the University of Lahore; as Professor from January 2005 to August 2006.
- Taught courses at M Sc and M Phil levels in areas such as Crisp and Fuzzy Set theories, Topology, Functional Analysis at Department of Mathematics; Calculus and Discrete Mathematics at Department of Computer Science, G C University, Lahore, as Associate Professor from May 1999 to May 2002 and as Professor from May 2002 to Dec 2004.
- Taught Discrete Mathematics, Graph Theory, Linear Algebra and Calculus to BCS, MCS and M Sc classes as Visiting Professor at the GC University, Lahore and the University of Central Punjab, Lahore, Pakistan; from 2000 to 2004.
- Taught Topology, Functional Analysis, Theory of Categories & Automata, Advanced Real Analysis, Algebra etc) as Associative Professor to graduate & postgraduate classes at the Government College, Lahore, Pakistan; from 1999 to 2002.
- Taught Mathematics to various classes of BE, M Sc & M Phil at Bahauddin Zakariya University, Multan, Pakistan; from 1989 to 1999.
- Taught Mathematics at the Divisional Public School & College, Faisalabad, Pakistan; from October 1985 to December 1985 & September 1986 to October 1989; *from December 1985 up to August 1986 I worked at the B Z University, Multan as a Research Scholar.*

Research Experience

- Working jointly with Prof. F. B. Jamjoom, Prof. Antonio M. Peralta and Dr. Haifa M. Tahlawi in the area of JB^* -triples and JB^* -algebras, being funded by the KSU: as research group # RGP-361. [Haifa completed her PhD, under my supervision, in 2004]
- Working jointly with Prof. F. B. Jamjoom and Dr. Reem K. AlHefthi in the area of Quasi Jordan Banach Algebras at the KSU. [Reem completed her PhD, under my supervision, recently in 2014]
- Supervised 2 PhD research projects in Functional Analysis at King Saud University, Riyadh-Saudi Arabia. [2009-2014]
- Supervised research projects: 4 M Phil, 7 M Sc / B Sc (Honours) on *Axiomatic Set Theory, Classical Analysis, Functional Analysis, Fuzzy Mathematics, Graph Theory and Operator Algebras* at Bahauddin Zakariya University and GC University, Pakistan; from 1996-2006.
- Research done (for Ph D) in JB^* -algebras & JB^* -triples, under the supervision of Dr. M. A. Youngson at the Heriot-Watt University, Edinburgh, UK; 1993-1996.
- Research done (partially for M Phil) in the area of BCI- & BCK-Algebras in analogy to Groups under the supervision of Dr. Muhammad Anwar Chaudhry at the Centre for Advanced Studies in Pure & Applied Mathematics, Bahauddin Zakariya University, Multan, Pakistan; 1986-1988.

Research Students

Ph D:

- Haifa H. Tahlawi; Thesis title: *Brown-Pedersen quasi-invertibility in JB^* -triples*. [Completed in 2012]
- Reem K. AlHefthi; Thesis title: *Quasi Jordan Banach algebras*. [Completed in 2014]

M Phil:

- Khalil Ahmad; Thesis title: *Generalization of some C^* -algebra results to JB^* -algebras*. [1999]
- Ehsan ul Haq; Thesis title: *The continuous induction*. [2002]
- Nahid Akhtar; Thesis title: *On some relationships between graphs and C^* -algebras*. [2004]
- Nadeem Khan; Thesis title: *Extension of certain results from C^* -algebras to JB^* -algebras*. [2004]

M Sc:

- Nahid Akhtar; Thesis title: JB^* -algebras. [2000]
- Tayyaba Saleemi; Thesis title: *Non-associative Banach algebras*. [2000]
- Farah Islam; Thesis title: *Axiomatic set theory*. [2000]
- Zia ud Din Butt; Thesis title: C^* -algebras. [2002]
- Asma Rashid Butt; Thesis title: *Some generalizations of metric spaces*. [2004]
- Shafqat Ali; Thesis title: *Some topological aspects of graphs*. [2004]

B Sc (Hons):

- Muhammad Khurram Zafar; Project title: *Fuzzy multi-valued mappings*. [2004]

Editorial Experience

- Editor (Mathematics Section), *Journal of Natural Sciences and Mathematics*, G C University, Lahore (ISSN: 0022-2941); 2001-2004.
- Member of the Editorial Board (Physical and Mathematical Sciences), *Science International (ISSN: 10135316)*; 2001-2004.
- Member of the Research and Publications Society, GC University, Lahore; 2000-2004.
- Member of Editorial Board / Advisory Board of *Int. J. Appl. Comp. Math*; 2003-2004.

Conferences / Seminars / Colloquiums

- Attended the 30th Pakistan Science Conference held at Ayyub Agricultural Research Institute (AARI), Pakistan; 1987.
- Attended the North British Functional Analysis Seminars at Lancaster University, England; April 1993.
- Attended the Erasmus Intensive Programme held at the University of Edinburgh, Scotland, March-April 1985.
- Attended the 47th British Mathematical Colloquium at Heriot-Watt University, Scotland; April 1995.
- Attended the Conference “Banach Algebra ‘95” at the University of Newcastle, England; July 1995.
- Attended a series of Lectures on Functional Analysis by guest scholar Prof. Dr. Taqdeer Hussain, at the Bahauddin Zakariya University, Multan, Pakistan; November; 1996.
- Attended the “International Science Conference” held at the Punjab University, Lahore; October 2000.
- Organized a provincial workshop of mathematicians for preparing a comprehensive report on establishment of the *School of Mathematical Sciences (SMS)* in the GC University, Lahore; at Lahore Regional Campus of the UGC; September 2001.
- Attended *Functional Analysis Day* held at LUMS, Lahore; 9 March 2002.
- Organized (in collaboration with LUMS) a six days international *summer workshop & colloquium on mathematics* held at the Govt. College University, Lahore; from 24th to 29th June, 2002 - resource persons / speakers were most senior Pakistani mathematicians/ scientist and a big number of these came from abroad; and the participants were young mathematicians doing research in Pakistani higher education institutions (for M Phil and Ph D degrees).
- Designed and organized 10 weeks short course on *Numerical Computing with C++* at Department of Mathematics, GC University, Lahore; July-Sep 2002.
- Attended several seminars/colloquiums held at GCUL, LUMS, IMT and CIIT during 1999-2007.
- Organized various invited talks/lectures/seminars at Department of Mathematics, GC University, Lahore; 2001-2004.
- Attended the World Conference on 21st Century Mathematics 2004 at SMS GCUL, 18-20 March 2004.
- Attended the LUMS Mathematics Day held on 20th April 2004 and chaired its second session.
- Delivered invited lecture at FAST NU, Lahore (on 13th June 2004) and HEC, Lahore (on 15th & 17th June 2004) on Deductive Nature of Mathematics.
- Attended Winter Conference held at CASM, LUMS; 3-4 Dec 2004.
- Attended 3 days workshop on Particle Physics held at CASM, LUMS; April 2005.
- Attended Summer Conference in Mathematics held at CASM, LUMS, Lahore; 18-19 July 2005
- Attended Summer School in Fixed Point Theory held at CASM, LUMS, Lahore; 1-7 August 2005
- Attended Spring Conference in Mathematics held at CASM, LUMS; 27-28 Feb 2006.
- Attended Summer Conference held at CASM, LUMS in July 29-30, 2006.
- Attended the Workshop on Fuzzy Mathematics held at CASPAM, LUMS; 28-29 November 2006.
- Attended the Winter Conference held at CASPAM, LUMS; 1-2 December 2006.
- Delivered a series of talks on Continuous Induction, BCK-& BCI-algebras and JB*-algebras at Department of Mathematics, Prince Sultan University, Riyadh, KSA; April-May 2007.
- Delivered an invited talk on Developing Calculus via Continuous Induction at Department of Mathematics, King Saud University, Riyadh, KSA; April 2008.
- Attended the Summer Conference in Mathematics held in July 28-29, 2008 at CASM-LUMS, Lahore.
- Attended the Summer Conference in Mathematics held in July 27-28, 2009 at CASM-LUMS, Lahore.
- Attended 1st Annual Math-Days of King Saud University, Riyadh; 16-17 December 2009.
- Attended the Conference on “Mathematics and its Applications” at Imam University, Riyadh; 13-14 March 2011.
- Attended Second Math-Days of King Saud University; 14-15 March 2012.
- Organized a seminar “Jordan Triple Systems” by Professor Antonio Peralta at KSU; 5 June 2012.
- Attended the workshop on “Special functions and orthogonal polynomials”, held at the King Saud University, Riyadh; February 20-21, 2013.
- Delivered a talk, titled: A generalization of Hilbert space, invited by SAMS at Department of Mathematics, King Saud University, Riyadh, KSA; 12 March 2014.
- Organized a seminar “Jordan Banach modules over JB*-algebras and Jordan Banach triple modules over JB*-triples” by Professor Antonio Peralta at KSU; 15 September 2014.
- Organized a seminar “Derivations, Jordan derivations and triple derivations. Jordan and ternary weak amenability” by Professor Antonio Peralta at KSU; 17 September 2014.
- Organized a seminar “The beauty and usefulness of Functional Analysis, Operator Theory, C*-algebras and JB*-triples” by Professor Antonio Peralta at SAMS; 18 September 2014.

- Delivered a talk, titled: BCI-algebras and Groups – an invitation to BCI-algebras and beyond, invited by SAMS at Department of Mathematics, King Saud University, Riyadh, KSA; 10 December 2014.
- Organized a seminar “2-local $*$ -representations on von Neumann algebras and C^* -algebras” by Professor Antonio Peralta at SAMS; 08 April 2015.
- Attended 3rd International Conference on Mathematical Sciences and their Applications: Equilibrium and Optimization Methodology in Finance and Economics, held at King Saud University, Riyadh; November 9-11, 2015.
- Attended the workshop on “Ring Theory and its Applications”, held at Department of Mathematics, King Saud University, Riyadh; March 02, 2016.

Research Papers

- *Extremally rich JB^* -triples*, Ann. Funct. Anal, accepted on 11-04-2016. [ISI impact factor 0.603] (with F. B. Jamjoom, A. M. Peralta and H. M. Tahlawi)
- *Inner ideals, compact tripotents and Chebyshev subtriples of JB^* -triples and C^* -algebras*, accepted for publication in Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas (RACSAM), 2016. [ISI impact factor 0.776] (with F.B. Jamjoom, A.M. Peralta and H.M. Tahlawi)
- *Chebyshev Subspaces of JBW^* -triples*, Journal of Inequalities and Applications (2015), **2015**:288 doi:10.1186/s13660-015-0813-2 (open access) [ISI impact factor 0.77] (with F. B. Jamjoom, A. M. Peralta and H. M. Tahlawi)
- *Jordan weak amenability and orthogonal forms on JB^* -algebras*, Banach J. Math. Anal., Volume 9, Number 5 (2015), 126-145 [ISI impact factor 0.967] (with F. B. Jamjoom, A. M. Peralta)
- *Approximation and convex decomposition by extremals and the λ -function in JBW^* -triples*, Quart. J. Math. 00(2015), 1-21; doi:10.1093/qmath/hau036 [ISI impact factor 0.593] (with F. B. Jamjoom, A. M. Peralta and H. M. Tahlawi)
- *Quasi Jordan Banach algebras*, Abstract and Applied Analysis, vol. 2014, Article ID 690806, 11 pages, 2014. doi:10.1155/2014/690806 [ISI impact factor 1.274] (With R. K. Alhefithi and F. B. Jamjoom)
- *The λ -function in JB^* -triples*, J. Math. Anal. Appl. 414(2014) 734-741.[being reviewed in MR; ISI impact factor 1.119] (With H. M. Tahlawi and F. B. Jamjoom)
- *On the geometry of the unit ball of a JB^* -triple*, Abstract and Applied Analysis, vol. 2013, Article ID 891249, 8 pages, 2013. doi:10.1155/2013/891249 [MR3064400; ISI impact factor 1.274] (With H. M. Tahlawi and F. B. Jamjoom)
- *On unitary convex decompositions of vectors in JB^* -algebras*, Arch. Math., Brno 49, No. 2, 79-86 (2013). [MR 3118865; Zbl 06321150]
- *Computation of λ_α -function in JB^* -algebras*, New York J. Math. 19, 145-158 (2013) [MR 3065921; Zbl 06220384; ISI impact factor 0.418]
- *On non-degenerate Jordan triple systems*, Int. Journal of algebra, Vol. 5, no. 22, 2011, 1099-1105. [MR 2855686; Zbl 1269.46048] (With H. M. Tahlawi)
- *Analogue of Brown-Pedersen' quasi invertible elements for JB^* -triples*, Int. Journal of Math. Analysis, Vol. 5, no. 30, 2011, 1469-1476. [MR 2843079; Zbl 1248.46045] (With H. M. Tahlawi)
- *Unitary isotopes of JB^* -triples*, Conference: Mathematics and its Applications, Imam Univ., Riyadh (2011). (With H. M. Tahlawi)
- *Common fixed point theorems for self maps of a generalized metric space satisfying A -contraction type condition*, Int. J. Math. Anal., Ruse 5, No. 13-16, 757-763 (2011). [MR 2804629; Zbl 1237.54040] (With M. Akram and A. A. Zafar)
- *λ_α -function in JB^* -algebras*, New York J. Math., 17, 2011, 139-147. [MR 2781911 | Zbl 1227.46036; ISI impact factor 0.439]
- *Convex combinations of unitaries in JB^* -algebras*, New York J. Math., 17, 2011, 127-137. [MR 2781910 | Zbl 1227.46035; ISI impact factor 0.439]
- *A proof of Russo-Dye theorem for JB^* -algebras*, New York J. Math., 16, 2010, 53-60. Zbl pre05759884 [MR 2645985 | Zbl 1231.46015; ISI impact factor 0.439]
- *On some invertibility notions* (Poster), The First Scientific Conference for Students in Saudi Universities, King Saud University-Riyadh, March 1-4, 2010. (With H. M. Tahlawi)
- *On some invertibility notions*, 1st Int. Math. Conf., Damascus Univ., Syria, Nov. 4-5, 2009. (With H. M. Tahlawi)
- *BP-quasi invertible elements in JB^* -algebras*: 1st Annual Mathematics Days of King Saud University, Riyadh-Saudi Arabia; December 16-17, 2009. (With H. M. Tahlawi)
- *A general class of contractions: A -contractions*, Novi Sad J. Math., 38(1), 2008, 25-33. [MR 2498688 | Zbl 1274.54092] (With M. Akram, A. A. Zafar)
- *Average of two extreme points in JBW^* -triples*, Proc. Japan Acad., Ser. A, 83, 2007, 176-178. [MR 2376600 | Zbl 1207.46046; ISI impact factor 0.39]
- *The centre of unitary isotopes of a JB^* -algebra*, Irish Math. Soc. Bull., 59, 2007, 37-47. [MR 2353407; Zbl 1147.46306]
- *JB^* -algebras of topological stable rank 1*, Int. J. Math. And Math. Sciences, Vol. 2007, Article ID 37186, 24 pages, 2007. [MR 2306360; Zbl 1161.46041]
- *On the principle of mathematical induction*, Zimaths, Vol. 1, no. 1, 2007, 17-21.
- *On unitaries in JB^* -algebras*, Indian J. Math., Vol. 48, no. 1, 2007, 35-48. [MR 2229466 | Zbl 1115.46058]
- *Asymmetric decompositions of vectors in JB^* -algebras*, Arch. Math. (BRNO), Tomus 42, 2006, 159-166. [MR 2240353 | Zbl 1164.46342]
- *Self-adjointness in unitary isotopes of JB^* -algebras*, Arch. Math., 87, 2006, 350-358. [MR 2263481 | Zbl 1142.46020; ISI impact factor 0.5]
- *Positivity of invertibles in unitary isotopes of JB^* -algebras*, Preprint.
- *Equivalence of completeness axiom and continuous induction*: Science. International-Lahore, ISSN 1013-5316, Vol. 13(3), 2001, 211-213. [ISI impact factor 0.75] (With M. Akram and E. U. Haque)
- *Normal elements in JB^* -algebras*: Science International-Lahore, Vol. 13(2), 2001, 113-115. [ISI impact factor 0.75: <http://ip-science.thomsonreuters.com/cgi-bin/jrnlist/jresults.cgi?PC=MASTER&ISSN=1013-5316>] (With K. Ahmad)

- *On isomorphism theorems in BCI-algebras*, Journal of Mathematics, Punjab Univ., Vol. 22, 1989, 37-53. [[MR 1060271](#); [Zbl 0707.06014](#)] (With M. A. Chaudhry)
- *On the maximality and simplicity in BCI-algebras*, J. Nat. Sci. Math. 29, No.1 (1989), 11-20. [[MR 1026381](#); [Zbl 0673.06008](#)] (With M. A. Chaudhry)
- *Some fixed point theorems for a general class of contraction maps*: Journal of Pure and Applied Sciences, Vol. 23, No. 2, June 2004, 99-105. (With M. Akram and A. A. Zafar)
- *Some axioms that are equivalent to principle of continuous induction*: Journal of Pure and Applied Sciences, Vol. 23, No. 1, June 2004, 15-19. (With M. Akram and E. U. Haque)
- *Deductive nature of Mathematics*: Scientific Ravi, 2004.
- *On directed graphs and C*-algebras*: World Conference on 21st Century Mathematics 2004, held at SMS GCUL, 18 – 20 March, 2004. (With N. Akhtar)
- *Some fixed-point theorems for A-contractions on a class of generalized metric spaces*: World Conference on 21st Century Mathematics 2004, held at SMS GCUL, March 18 – 20, 2004. (With Akram)
- *Some fixed point theorems for multi-valued A*-mappings*: Korean Journal of Mathematical Sciences, Vol. 10, No.2 (2003), 7-12. (With M. Akram and A. A. Zafar)
- *A fixed-point theorem for A-contractions on a class of generalized metric spaces*: Korean Journal of Mathematical Sciences, Vol. 10, No.2 (2003), 1-5. (With M. Akram)
- *Fuzzy mathematics*: Scientific Ravi, 2001.
- *Thinking with arrows*: Scientific Ravi, 2001.
- *Distance to the invertibles in JB*-algebras-II*: Journal of Pure and Applied Sciences, Vol. 20, No. 1, June (2001), 127-131. (With K. Ahmad)
- *Distance to the invertibles in JB*-algebras-I*: Journal of Pure and Applied Sciences, Vol. 20, No. 1, June (2001), 63-69. (With K. Ahmad)
- *On ideal chains in BCI-algebras*: Journal of Research (Sc.), BZU, Vol. 2, No.3, 1990. (With M. A. Chaudhry)
- *On ideal series in BCI-algebras*: Journal of Research (Sc.), BZU, Vol. 2, No. 3, 1990. (With M. A. Chaudhry)
- *Revisiting classical analysis via continuous induction*, ready for submission.
- *Homotopes of quasi Jordan algebras*, in preparation.
- *Quasi Jordan Banach algebras with involution*, in preparation.
- *A Russo-Dye type theorem for quasi Jordan Banach algebras*, in preparation.
- *Quasi Jordan triple systems; work in progress*.

Reviews of Research Articles

- A review on “*On some numerical radius inequalities and bounds for the zeros of polynomials*” by M. Al-Hawari [Far East Journal of Mathematical Sciences (FJMS), Vol. 32, Issue 3 (2009), 415-422].
- A review on “*The generalized estimate for numerical radius for Hilbert space operators*” by M. Al-Hawari and Jafar Ahmed [Far East Journal of Applied Mathematics (FJAM), Vol. 35, No.1 (2009), 61-64].
- A review on “*New estimates for the numerical radius of a given matrix and bounds for the zeros of polynomials*” by M. Al-Hawari [Studia Univ. “Babes-Bolyai”, Mathematica, Vol. LIV, No.4 (2009), 73-80].
- A review on “*Generalized inequalities for sums and direct sums of Hilbert space operators*” by M. Al-Hawari [International Journal of Applied Mathematics (IJAM), Vol. 22, No.4 (2009), 627-632].
- A review on “*An inversion of one class of integral operator by L. A. Sakhnovich’s operator identity method*” by R. Hatamleh, M. Al-Hawari and A.Qazza [Studia Univ. “Babes-Bolyai”, Mathematica].
- A review on “*Fixed point theorems for a class of A-contractions on a 2-metric space*” by M. Saha and D. Dey [for NSJOM, 2009].
- A review on “*A fixed point approach to the stability and super stability of J*-homomorphism*” by L. Wang [for LUMS,].
- A review on the article “*On an Infinite Dimensional Leslie Matrix in the Banach Space c_0* ” by Omer Faraj Mukhrrij [for KSUJM, 2010].
- A review on the article “*Approximately n-characters on Banach algebras*” by Esmaeil Ansari-Piri, Hamid Shayanpour, Ali Zohri and Zohreh Heidarpour [for Journal of Function Spaces, 2014].

Research projects (in progress)

- Geometry of unit balls of JB*-triples and JB*-algebras, funded by KSU-KSA.
- Quasi Jordan Banach algebras.
- The λ -function in quasi Jordan Banach algebras.
- Fixed point theorems for multi-valued maps on generalized metric spaces.
- On some relationships between graphs and C*-algebras.
- Developing calculus via continuous induction.
- Linear relations between vector spaces.
- A book titled “Topics in Functional Analysis,” funded by the KSU-KSA.

References

- **Professor Dr. M. H. Qazi**, Rector, The University of Lahore, Raiwind Road, Lahore, Pakistan. rector@ulhr.edu.pk
- **Professor Dr. Ismat Beg**, Professor of Mathematics, Lahore School of Economics, Burki Road, Lahore Cantt. 53200, Pakistan. ibeg@lahoreschool.edu.pk