

# Dr. Agha Kashif Arshad Khan

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## Academic History

- 2015**                      **PhD** (*Mathematics*)  
National University of Computer & Emerging Sciences-FAST, Lhr.  
**Thesis Title:**        *Algebraic Characterization of Spanning Simplicial Complexes*
- 2010**                      **MPhil.** (*Mathematics*)  
Government College University Lahore  
**Thesis Title:**        *A Study of BCK-Modules.*  
CGPA: 3.39 out of 4.0.
- 2005**                      **MSc.** (*Mathematics*)  
Government College University Lahore  
**Thesis Title:**        *Camera with Single View Geometry.*  
Secured 72.58% marks.
- 2003**                      **BSc.** (*Math-A, Math-B, Physics*)  
The University of Punjab.
- 2001**                      **Intermediate** (*Mathematics, Physics, Chemistry*)  
BISE Lahore.
- 1999**                      **Matriculation** (*Science Group*)  
BISE Lahore.

## Teaching/Research Experience

Nov 2013–To-date	<b>Assistant Professor</b> at Department of Mathematics, University of Management and Technology Lahore, Pakistan.
Sep 2012 – Nov 2013	<b>Lecturer</b> at Department of Mathematics, University of Management & Technology, Lahore, Pakistan.
Feb 2009 - Sep 2012	<b>Lecturer</b> at Department of Mathematics, The University of Lahore, Lahore, Pakistan.
Dec 2007-Feb 2009	<b>Instructor/E-Lecturer</b> at Department of Mathematics, Virtual University of Pakistan, Lahore, Pakistan.
July 2007-Dec 2007	<b>Lecturer</b> at Department of Mathematics, Government MAO College, Lahore, Pakistan (under National Internship Program NIP, Govt. of Pakistan).

## Fields of Interest

- Combinatorial Commutative Algebra
- BCK-Algebra, BCK-Modules
- Algebra: Rings, Modules. Monomials
- Logics
- Calculus
- Linear Algebra

## Courses Taught

### Graduate Level at UMT, Lahore

- Combinatorial/Computational Commutative Algebra, UMT Lahore Pakistan

### Undergraduate Level at UMT, Lahore

- Calculus, Multivariable Calculus, Applied Calculus, UMT Lahore Pakistan
- Linear Algebra, UMT Lahore Pakistan
- Probability and Statistics, UMT Lahore Pakistan
- Algebra-I (Groups), UMT Lahore, Pakistan

- Algebra-II (Rings), UMT Lahore, Pakistan
- Algebra-III (Modules, Vector Spaces and Fields), UMT Lahore, Pakistan

### **Undergraduate Level at UOL, Lahore**

- Applied Calculus, Multivariate Calculus, UOL Lahore Pakistan
- Linear Algebra, UOL Lahore, Pakistan
- Complex Variables and Transforms, UOL Lahore, Pakistan
- Differential Equations, UOL Lahore, Pakistan
- Business Mathematics, UOL Lahore, Pakistan.

### **Undergraduate Level at VU of Pakistan**

- Business Mathematics, VU of Pakistan.
- Linear Algebra, VU of Pakistan.

### **Intermediate/Undergraduate Level at Govt. MAO College Lahore**

- Rings and Modules to M.Sc. students, Govt. MAO College Lahore Pakistan.
- Business Mathematics to Intermediate students, Govt. MAO College Lahore Pakistan.
- Calculus to Intermediate students, Govt. MAO College Lahore Pakistan.

## **Professional Trainings**

- Two days training workshop on “**High Achievers**” Date: August 19-20, 2013, Organized by Center for Management Development University of Management and Technology at UMT Lahore, Pakistan
- One day training workshop on “**Moodle**” a learning management system, Organized by University of Management and Technology Lahore for faculty at UMT Lahore Pakistan

## Talks Delivered in Conferences

- Characterization of Spanning Simplicial Complexes of certain Graphs, Date: 06-03-2013, Presented in **6<sup>th</sup> World Conference on 21<sup>st</sup> Century Mathematics-2013**, March 6-9, 2013, Venue: Abdus Salam School of Mathematical Sciences, GC University Lahore Pakistan.
- Homology Theory of BCK-Modules, Date: 31/07/2011, Presented in **12<sup>th</sup> Pure Mathematics Conference 2011**, July 29-31, 2011, organized by Preston University Pakistan and Pakistan Mathematica Society Venue: Department of Mathematics, QAU Islamabad Pakistan

## Conferences/Workshops Participation

- 28<sup>th</sup> to 29<sup>th</sup> March 2014: Workshop on Recent Advances in Commutative Algebra with Algebraic Geometry. Centre for Advanced Studies in Mathematics (CASM) at LUMS, Lahore- Pakistan.
- 9<sup>th</sup> to 10<sup>th</sup> November 2012: Workshop on Algebraic and Topological Aspects of Arrangements and Applications. Centre for Advanced Studies in Mathematics (CASM) at LUMS, Lahore-Pakistan.
- 9<sup>th</sup> to 13<sup>th</sup> Feb 2011: 5<sup>th</sup> World Conference on 21<sup>st</sup> Century Mathematics, 2011 held at Abdus Salam School of Mathematical Sciences (ASSMS), GC University Lahore, Pakistan
- 7<sup>th</sup> to 13<sup>th</sup> March 2010: International Conference on Mathematical Inequalities and Applications 2010 held at Abdus Salam School of Mathematical Sciences (ASSMS), GC University, Lahore Pakistan.
- 18<sup>th</sup> to 20<sup>th</sup> March 2001: International Conference on 21<sup>st</sup> Century Mathematics 2004 held at Abdus Salam School of Mathematics Sciences (ASSMS), GC University, Lahore Pakistan.

## Publications

### Published

- 2015** 1. Spanning Simplicial Complexes of Uni-Cyclic Graphs, **Algebra Colloquium**. Vol. 22(4), 707-710.

**Impact Factor (2013): 0.272**

Co-authors: Z. Raza, I. Anwar

- 2014 2. On the Algebraic Study of Spanning Simplicial Complexes of r-cyclic Graphs  $G_{n,r}$ , *ARS Combinatoria*. Vol. 115, 89-99.

**Impact Factor (2012): 1.363**

Co-authors: Z. Raza, I. Anwar

3. Homology Theory of BCK-Modules. *Southeast Asian Bulletin of Mathematics* Vol. 38 (1) pp. 61-72.

Co-author: M. Aslam

### Submitted

1. On Algebraic Characterization of Spanning Simplicial Complexes of the Jahangir's graph  $J_{n,m}$  submitted (2014).

Co-authors: Z. Raza, I. Anwar

2. Characterization of Spanning Simplicial Complexes of Certain Graphs, submitted (2014).

Co-authors: Z. Raza, I. Anwar

3. A Binomial Ideal on Triangulations of 2-Manifolds, submitted (2015).

Co-author: Z. Raza

4. Topology On BCK-Modules, submitted (2015).

Co-author: M. Aslam

## IT/Computer Skills

- Using the **Smart Board Technology** in class teaching
- Well aware of **Learning Management System**, such as, *Moodle* etc.
- Adept in using reference managers *Endnote* and *Endnoteweb*.
- Accustomed user of anti-plagiarism software *Turnitin*.
- Proficient in writing tools such as *MS Office*, *Latex* and others.

## Personal Data

Father's Name	Agha Arshad Mahmood
Date of Birth	August 26, 1984
Nationality	Pakistani
Marital Status	Married
CNIC	35202-6327436-7
Residence	Agha Jee, Habibia Road, Shad Bagh, Lahore, Pakistan.

## Academic References

1. **Dr. Zahid Raza**, Associate Professor, Department of Mathematics National University of Computers and Emerging Science, FAST Lahore, Pakistan. Email: [zahid.raza@nu.edu.pk](mailto:zahid.raza@nu.edu.pk).
2. **Dr. Muhammad Aslam**, Professor, Chairman Department of Mathematics, GC University, Lahore, Pakistan. Email: [aslam298@hotmail.com](mailto:aslam298@hotmail.com).

**The undersigned hereby certifies that all information given in this document is true, complete, and correct.**

Agha Kashif Arshad Khan