

### Dr. Shehzad Hasan

Ph.D. (IIT Roorkee)

**Professor** Department of Mathematics Faculty of Natural Sciences Jamia Millia Islamia New Delhi – 110 025



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Last updated: Friday, January 03, 2025

# Academic Profile

Nursery to 8<sup>th</sup> Std., **Mahatma Gandhi Memorial School**, Janak Nagar, Saharanpur-247 001, Uttar Pradesh.

9<sup>th</sup> std. to 12<sup>th</sup> std. **Satyug Ashram Model Inter College**, Saharanpur- 247 001, Uttar Pradesh

Bachelor of Science (1996) in First Division J.V. Jain Degree College, Saharanpur- 247 001, Uttar Pradesh (Affiliated to CCS University, Meerut, U.P., India).

Master of Science (Mathematics) (1998) in First Division J.V. Jain Degree College, Saharanpur- 247 001, Uttar Pradesh (Affiliated to CCS University, Meerut, U.P., India).

Doctor of Philosophy (2002) **Indian Institute of Technology Roorkee**, Roorkee -247 667, India. (Title of thesis: Crack arrest models for internal and external cracks weakening a plate)

Courses Taught		Back
<ul> <li>Undergraduate</li> <li>Mechanics</li> <li>Basic Calculus</li> <li>Numerical Methods</li> <li>Multivariate Calculus</li> <li>Engineering Mathematics</li> <li>Probability and Statistics</li> <li>Calculus and Differential Equations</li> <li>Geometry of Two and Three Dimensions</li> <li>Programming in C and Numerical Analysis</li> <li>Linear Programming and Operations Research</li> <li>Mathematical Statistics and Operational Research</li> <li>Functions of Several Variables and Complex Trigonometry</li> </ul>	<ul> <li>Postgraduate</li> <li>Classical Mechanics</li> <li>Operations Research</li> <li>Probability and Statistics</li> <li>Theory of Differential Equations</li> <li>Computer Oriented Numerical Analysis</li> <li>Differential Equations and their Applications</li> </ul>	

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# Employment Profile

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Jan-2004 to Jan-2008: Lecturer, Department of Mathematics, Jamia Millia Islamia, New Delhi -110 025, India

Jan-2008 to Jan-2013: Assistant Professor (AGP-7000), Department of Mathematics, Jamia Millia Islamia, New Delhi -110 025, India

Jan-2013 to Jan-2016: Assistant Professor (AGP-8000), Department of Mathematics, Jamia Millia Islamia, New Delhi -110 025, India

Jan-2016 to Jan- 2019: Associate Professor, Department of Mathematics, Jamia Millia Islamia, New Delhi -110 025, India

Jan-2019 to till date : Professor, Department of Mathematics, Jamia Millia Islamia, New Delhi -110 025, India

# Administrative Positions

- Head (since August -2022), Department of Mathematics, Jamia Millia Islamia, New Delhi
- Assistant Central Timetable In-charge, 2020-2022, Jamia Millia Islamia, New Delhi
- Assistant Superintendent of UG and PG Examination 2018, 2019, Department of Mathematics, Jamia Millia Islamia, New Delhi
- In-charge, Computer Lab. 2017-19, Department of Mathematics, Jamia Millia Islamia, New Delhi
- Assistant Superintendent of UG and PG Examination 2017-18, Department of Mathematics, Jamia Millia Islamia, New Delhi
- Member, Academic Audit Team, 2017, Jamia Millia Islamia, New Delhi.
- Assistant Centre Superintendent, Centre No. 23, Entrance Test- 2016, Jamia Millia Islamia, New Delhi.
- Member, IQAC, 2015-16, Jamia Millia Islamia, New Delhi.
- Member, CBCS Committee, 2015, Jamia Millia Islamia, New Delhi.
- Assistant Centre Superintendent, XI-Science Entrance Test- 2014, Jamia Millia Islamia, New Delhi.
- Member, Semester Examination Coordination Committee- 2014, Department of Mathematics, Jamia Millia Islamia, New Delhi
- Member, Cricket team of Faculty of Natural Sciences, Jamia Premier League 2014, Jamia Millia Islamia.
- Team Manager, Volleyball, Badminton, Table Tennis and Basket Ball, Inter Faculty Tournament-2014, Faculty of Nat. Sci., Jamia Millia Islamia, New Delhi
- Member, Semester Examination Coordination Committee- 2013, Department of Mathematics, Jamia Millia Islamia, New Delhi
- Tabulator, Faculty of Natural Science, Semester Examination 2013, Jamia Millia Islamia, New Delhi.
- Tabulator, Faculty of Natural Science, Annual Examination 2013, Jamia Millia Islamia, New Delhi.
- Decoder, Semester Examination 2012, Jamia Millia Islamia, New Delhi.
- Identification Officer, B. Tech. Entrance Test- 2012, Jamia Millia Islamia, New Delhi.
- Tabulator, Annual Examinations, Faculty of Natural Science, 2009, 2010, 2011, 2012 Jamia Millia Islamia, New Delhi.
- Member, Project Implementation Group, FIST-DST 2011, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- Member, Semester Examination Committee, 2011, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- Member, Syllabus Revision Committee, 2010, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- In-charge, Timetable in 2008, 2009, 2010, 2011, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- Assistant Superintendent, P.G. Examination- 2008, 2009, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- Assistant Centre Superintendent, Entrance Test- 2009, 2010, 2011, Jamia Millia Islamia, New Delhi.
- Member, Academic Committee, Natural Science Info Fest March, 2008, Faculty of Nat. Sci., Jamia Millia Islamia, New Delhi.
- Departmental Coordinator, Natural Science Info Fest -November, 2008, Faculty of Nat. Sci., Jamia Millia Islamia, New Delhi.
- In-charge, Departmental Library, 2006-07, Department of Mathematics, Jamia Millia Islamia, New Delhi.
- Member, Hospitality Committee, Annual Convocation 2006, Jamia Millia Islamia, New Delhi.
- Member, Faculty Committee, 2005-07, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi.
- Member, Reception Committee in Special Convocation, Jamia Millia Islamia, New Delhi.
- Assistant Superintendent of Examination, 2003, RGEC, Meerut.
- Member, Reception Committee in International Conference on Mathematical Modelling, January 29-31, 2001, University of Roorkee, Roorkee.

- 1. Saifi I, Hasan S. *Effect of quadratically varying electric potential on the multiple cracks in piezoelectric materials*. Mathematics and Mechanics of Solids. Vol 29 (10), pp-2092-2111, 2024. [IF = 1.7, in 2024]
- 2. S. Hasan, Naved Akhtar, Irshad, *Strip electro-mechanical yield model for three equal straight collinear cracks in piezoelectric materials*, **European Journal of Mechanics** <u>A/Solids</u>, Volume 106, 105335, 2024, [IF = 4.4, Cite Score: 7.7, in 2024]
- 3. Naved Akhtar, Shehzad Hasan, Sudhanshu Shekhar, <u>Applications of modified Dugdale model to multiple collinear straight cracks with coalesced yield zones</u>, <u>Journal of</u> <u>Mechanics of Materials and Structures</u>, Vol. 19, No. 4, 541-560, 2024, [IF = 0.9, in 2024]
- 4. Irshad Saifi, Naved Akhtar; S. Hasan, *Mathematical modelling for multiple straight cracks in piezoelectric ceramics;* Strength, Fracture and Complexity An International Journal, Vol. 16, No. 2, 109-130, 2023 [Cite Score: 1.1, SNIP: 0.227, SJR:0.515 in 2022]
- Naved Akhtar; S. Hasan; S. Shekhar, <u>Solution of a Multiple Crack Problem under the Influence of a Linear Stress Distribution and Coalesced Yield Zones</u>, Journal of Applied <u>Mechanics and Technical Physics</u>, Vol-64 (1), 118-130, 2023 [Cite Score: 1.2, SNIP: 0.304, SJR:0.65].
- 6. Naved Akhtar; S. Hasan; S. Shekhar, *Mathematical modelling for multiple straight cracks with coalesced yield zones*, Engineering Solid Mechanics, Vol. 10, No. 4, 311-324, 2022 [Cite Score: 2.6, SNIP: 0.43, SJR:0.572 in 2021].
- 7. S. Hasan; Naved Akhtar; S. Shekhar, *Strip yield model for multiple straight cracks with coalesced yield zones: A theoretical study*; Strength, Fracture and Complexity An International Journal, Vol. 14, No. 2, 59-73, 2022 [Cite Score: 0.8, SNIP: 0.227, SJR:0.515 in 2020]
- 8. S. Shekhar, Naved Akhtar, S. Hasan, <u>Study of load bearing capacity of an infinite sheet weakened by multiple collinear straight cracks with coalesced yield zones</u>, <u>Materials</u> <u>Science Poland</u>, Vol. 39, No. 2, 265-284, 2021 [IF=1.022, SNIP: 0.404, SJR:0.257 in 2021]
- 9. N. Akhtar and S. Hasan, *Modification of Dugdale model for four circular arc-cracks with coalesced plastic zones: A complex variable approach*, Materials Physics and Mechanics, 47, 219-236, 2021 [Cite score: 1.5 (2020), SJR= 0.285 (2020), SNIP=0.840 (2020)]
- 10. S. Hasan, S. Shekhar and N. Akhtar, *Study on three unequal straight cracks with coalesced yield zones: A case of parabolic stress distribution*, JMI International Journal of Mathematical Sciences, Vol. 10, 2019, 57-70. [ISSN-0976-5913]
- 11. N. Akhtar and S. Hasan, *Four circular-arc cracks with coalesced yield zones in an infinite plate: A theoretical approach*, Strength Fracture and Complexity, IOS Press, Vol. 11, No. 4, pp. 279-294, 2018. [Cite Score: 0.8, SNIP: 0.227, SJR:0.515 in 2020]
- N. Akhtar and S. Hasan, <u>Assessment of the interaction between three collinear unequal straight cracks with unified yield zones</u>, <u>AIMS Materials Science</u>, AIMS Press, Vol. 4(2), 2017, pp. 302-316 [Cite Score: 2.6, SNIP: 0.367, SJR: 0.606, in 2020]
- 13. S. Hasan, <u>Modified Dugdale model for four collinear straight cracks with coalesced yield zones</u>, <u>Theoretical and Applied Fracture Mechanics</u>, Elsevier Science, Vol. 85, pp. 227-235, 2016. [IF: 4.734 (2021)]
- S. Hasan, <u>Application of modified Dugdale model to two pairs of collinear cracks with coalesced yield zones</u>, <u>Applied Mathematical Modelling</u>, Elsevier Science, Vol. 40 (4), pp. 3381–3399, 2016. [IF: 5.33 (2021)]
- 15. S. Hasan, Effects of variable stresses on the yield zone length and CTOD for two collinear straight cracks, Mathematical Sciences International Research Journal, Vol.5, No.1, pp. 32-38, 2016. [ISSN: 2278-8697].

- 16. S. Hasan and Naved Akhtar, <u>Mathematical model for three equal collinear straight cracks: A modified Dugdale approach</u>, <u>Strength Fracture and Complexity</u>, IOS Press, Vol. 9, No. 3, pp. 211-232, 2015. [Cite Score: 0.60, SNIP: 0.371, SJR:0.165, in 2019]
- 17. S. Hasan and Naved Akhtar, *Dugdale model for three equal collinear straight cracks: An analytical approach*, Theoretical and Applied Fracture Mechanics, Elsevier Science, Vol. 78, pp 40 50, 2015. [IF: 4.374 (2021)]
- Naved Akhtar and S. Hasan, <u>Modified Dugdale model for three equal collinear straight cracks: A theoretical analysis</u>, <u>International Journal of Applied Engineering Research</u>, Vol. 10 (19), pp. 40010-40020, 2015. [IF: --, SNIP: 0.166, SJR: 0. 13]
- 19. S. Hasan and Naved Akhtar, <u>An analytical solution for three symmetrical collinear straight cracks with coalesced yield zones: A complex variable approach</u>, <u>Global Journal of</u> <u>Pure and Applied Mathematics</u>, Vol. 11, No. 5, pp. 2825-2842, 2015. [IF: --, SNIP: 0.488, SJR: 0.223]
- 20. S. Hasan, *Dugdale model for three unequal collinear straight cracks with coalesced yield zones: A complex variable approach*, International Journal of Pure and Applied Mathematics, Vol. 105 (2), pp. 311-323, 2015. [IF: --, SNIP: 0.635, SJR: 0. 322]
- R. R. Bhargava and S. Hasan, <u>Crack-tip-opening displacement for four symmetrically situated cracks with coalesced interior yield zones</u>, <u>Applied Mathematical Modelling</u>, Elsevier Science, Vol. 36, Issue 11, pp 5741–5749, 2012. [IF: 5.33 (2021)]
- 22. R. R. Bhargava and S. Hasan, *Mathematical model for crack arrest of an infinite plate weakened by a finite and two semi-infinite cracks*, Applied Mathematics and Computation, Elsevier Science, 218, 6576-6584, 2012. [IF: 4.39 (2021)]
- 23. R. R. Bhargava and S. Hasan, <u>Crack opening displacement for two unequal straight cracks with coalesced plastic zones ~ a modified Dugdale model</u>, <u>Applied Mathematical</u> <u>Modelling</u>, Elsevier Science, Vol. 35, 3788-3796, 2011. [IF: 5.33 (2021)]
- 24. S. Hasan, <u>Analytical model for two equal straight cracks with coalesced yield zones subjected to quadratically varying stress distribution</u>, <u>JMI International Journal of</u> <u>Mathematical Sciences</u>, Vol. 2, No-1, 45 - 59, 2011. [ISSN-0976-5913]
- 25. R. R. Bhargava and Shehzad Hasan, <u>The Dugdale solution for two unequal straight cracks weakening an infinite plate</u>, <u>Sadhana</u> Academy Proceedings in Engineering Sciences, Springer India, in co-publication with Indian Academy of Sciences, Vol. 35, 1, 19-29, 2010. [IF: 1.6 (2022)]
- 26. R. R. Bhargava and S. Hasan, <u>Arrest of opening of circular arc cracks with coalesced plastic zones</u>, <u>Mechanics of Composite Material</u>, 37(3)3, 2001, 201-206, Springer New York. (In Russian Edition Vol. 37, 3, 2001, 323-331). [IF: 1.7 (2022)]

## **Publications in Edited Book/ Conference Proceedings**

Back

- 1. R. R. Bhargava and **S. Hasan,** *Generalized Dugdale model solution for a piezoelectric plate weakened by two straight cracks***, Proceeding of the International Conference on Advanced in Materials and Processing Technologies, pp. 647-652, Dublin, Ireland, 2003.**
- R. R. Bhargava, Shehzad Hasan and P. K. Bansal, *Variable pressure arresting opening of internal and external cracks weakening a plate*, System-Based Vision for Strategic and Creative Design: Proceedings of the Second International Conference on Structural and Construction Engineering, Rome, Italy, Volume 1, pp 1991-1996, Edited by Franco Bontempi, Published by Taylor and Francis, 2003, ISBN-10: 9058095991, ISBN-13: 9789058095992
- 3. R. R. Bhargava, **Shehzad Hasan**, *Crack arrest model for internal and external cracks weakening a plate- a Dugdale model approach*, 14th US National Congress on Applied Mechanics, June 23-28, 2002, Blacksburg, USA. (Abstract only)
- 4. R. R. Bhargava, **Shehzad Hasan**, *Plate weakened by unequal circular arc cracks with coalesced plastic zones a modified Dugdale approach*, Computational Mechanics New Frontiers for the New Millennium, Elsevier, 2001, Pages 619-624, ISBN 9780080439815.
- R. R. Bhargava, Shehzad Hasan, <u>Crack arrest model for a plate weakened by circular arc cracks with coalesced plastic zones</u>, Proceeding of International Conference on Mathematical Modelling, edited by Singh Bani, Gupta U.S., Srivastava G.S., Gulati T.R. and Katiyar V. K., Published by Tata McGraw-Hill, pp. 390-394. ISBN: 0070447586, 9780070447585
- 6. R. R. Bhargava, S.C. Agarwal, **S. Hasan**, *Modified Dugdale model solution for a plate weakened by two unequal cracks with coalesced plastic zones*, Advances in Elastic Vibrations and Smart Structures, 2001, Eds. A. R. Sahu, R. R. Bhargava, A. P. Gupta, ISBN 8174840435, 9788174840431
- 7. R. R. Bhargava, S.C. Agarwal, Shehzad Hasan, *Crack arrest model for unbounded plate weakened by two unequal collinear cracks*, South-Asian Countries Conference on Challenges to Architects and Civil Engineers During Twenty-First Century, April 7-9, pp. 121-134, 1999, Katmandu, Nepal

# **Papers Presented in Conferences**

- Effects of variable stresses on the yield zone length and CTOD for two collinear straight cracks, International Conference on Mathematics, Physics & Allied Sciences 2016, Carmel College, Nuvem, Margao, Goa, India, March 2016.
- Application of modified Dugdale model to two collinear cracks: A complex variable approach, International Conference on Mathematics-2015 (ICM-15), University of Kerala, Thiruvanathapuram (Trivandrum), Kerala, India. November 2015 (Abstract Only)
- Three unequal collinear straight cracks with coalesced yield zones under quadratically varying stress distribution, International Conference on Mathematical and Computational Sciences (IC-MACS-15) 2015, Don Bosco College, Angadikadavu, Kannur 670 706, Kerala, India. January 2015 (Abstract Only)
- Assessment of load bearing capacity of an infinite plate weakened by three collinear straight cracks with coalesced yield zones, International Conference on Algebra, Geometry, Analysis and their Applications (ICAGAA-14) 2014, Jamia Millia Islamia, New Delhi, (Abstract Only).
- Crack opening displacement for two unequal straight cracks with coalesced plastic zones ~ a modified Harrop approach, International Conference on Recent Trends in Mathematics and its Applications (ICRTMA-09) -2009, Jamia Millia Islamia, New Delhi, (Abstract Only).
- Crack arrest model for a plate weakened by circular arc cracks with coalesced plastic zones, International Conference on Mathematical Modelling, University of Roorkee, 2001.

# Ph. D. (Guided)

Ph.D. students (Degree Awarded): Two

1. Naved Akthar, "Mathematical Modelling for arresting of Multiple Cracks in an Infinite Plate"

2. Sudhanshu Shekhar, "A Study of Some Multiple Crack Problems"

Ph.D. students (Thesis submitted): One

Ph.D. students (Presently working): -

1. Irshad, "A Study of Multiple Cracks in Piezoelectric Materials"

# **Research Projects**

**Investigating Load Bearing Capacity of an Infinite Plate Containing Multiple Cracks** Duration: August-2014 to February-2015 Amount: 1.00 Lakh (under Innovative Research Scheme, JMI)

# **M.Sc. Projects/ Dissertation (Guided)**

**Modelling in Game theory** Mr. Sudhanshu Shekhar, M.Sc. Tech (Industrial Mathematics with Computer Applications)

**Multiple criteria and multiple constraints transportation problem** Mr. Akber Ali Khan, M.Sc. Tech (Industrial Mathematics with Computer Applications)

#### Stress analysis for an infinite plate weakened by a crack

Mr. Irshad Ali, M.Sc. Tech (Industrial Mathematics with Computer Applications)

Bac

# **Books Edited**

# Back

#### Algebra, Geometry, **Analysis and their Applications**

**Editors** Naseem Ahmad. Shehzad Hasan Arshad Khan Mohd. Yahya Abbasi

Algebra, Geometry, Analysis and their Applications **Editors** 

M. Rais Khan,

Khalil Ahmad.

Arshad Khan

Shehzad Hasan

Narosa

Narosa Publishing House, New Delhi, India (2017), ISBN 978-81-8487-561-4

#### **Recent Trends in Mathematics** and its Applications



Its Applications

World Education Publishers, New Delhi, India (2012), ISBN-978-81-909873-4-9.

#### **Differential Geometry**, **Functional Analysis and Applications**

Narosa Publishing House, New Delhi, India

(2015), ISBN 978-81-8487-421-1

#### **Editors**

Mohammad Hasan Shahid. Sharfuddin Ahmad, Khalil Ahmad, M. Rais Khan. Khursheed Haider

**Associate Editors** Shahzad Hasan Arshad Khan M. Yahya Abbasi

Differential Geometry Functional Analysis and Applications

# Narosa Publishing House

# **Books of Abstracts (Edited and Compiled)**



#### **International Conference on Differential Geometry**, 0 **Algebra and Analysis** November 15-17, 2016 Department of Mathematics, ABSTRACTS Jamia Millia Islamia. New Delhi -25, India

International Conference on Differential Geometry, **Functional Analysis and Applications** September 08-10, 2012 Department of Mathematics, Jamia Millia Islamia. New Delhi -25, India





International Conference on Algebra, Geometry, Analysis and their Applications	Extensional Conference Algebra, General Conference (CARAA.542) Winner (CARAA.542)
Department of Mathematics.	ABSTRACTS
Jamia Millia Islamia. New Delhi -25, India	
International Conference on Recent Trends in Mathematics and its Applications	Antonia Constantia Ok
March 30-31, 2009	RECENT TRENDS IN MATHEMATICS AND ITS APPLICATIONS
Department of Mathematics	(ICRTMA - 09) MARCH 50-37, 2009
Jamia Millia Islamia. New Delhi -25, India	ABSTRACTS
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Member of Conference Organizing Committee	Back
International Conference on Analysis and its Applications (ICAA-24)	
January 19-21, 2024, Department of Mathematics, Jamia Millia Islamia, New Delhi -25, India	
International Conference on Dynamical Systems and Numerical Analysis (ICDSNA-22)	
May 20-21, 2022, Department of Mathematics, Jamia Millia Islamia, New Delhi -25, India	
International Conference on Differential Geometry, Algebra and Analysis (ICDGAA-16)	
November 15 -17, 2016, Department of Mathematics, Jamia Millia Islamia, New Delhi -25, India	
International Conference on Algebra, Geometry, Analysis and their Applications (ICAGAA-14)	
November 27 - 29, 2014, Department of Mathematics, Jamia Millia Islamia, New Delhi - 25, India	
International Conference on Differential Geometry, Functional Analysis and Applications (ICDGFAA-12)	
September 08-10, 2012, Department of Mathematics, Jamia Millia Islamia, New Delhi -25, India	
International Conference on Recent Trends in Mathematics and its Applications (ICRTMA-09)	
March 30-31, 2009, Department of Mathematics, Jamia Millia Islamia, New Delhi -25, India	

# **Conferences/ Seminars/ Workshops Attended**

Back

- International Seminar in Cloud Computing and Distributed Systems, December 30, 2016, Department of Computer Science, Jamia Millia Islamia, New Delhi, India.
- International Conference on Mathematics, Physics and Allied Sciences (ICMPAS-16), March 2 5, 2016, Carmel College, Nuvem, Goa, India.
- International Conference on Mathematics (ICM-15), November 26 -28, 2015, Department of Mathematics, University of Kerala, Thiruvanathapuram (Trivandrum), Kerala, India
- International Conference on Mathematical and Computational Sciences (IC-MACS15), January 22-24, 2015, Don Bosco College, Angadikadavu, Kannur, Kerala, India.
- International Conference on Algebra, Geometry, Analysis and their Applications (ICAGAA-14), November 27-29, 2014, Department of Mathematics, Jamia Millia Islamia, New Delhi, India.
- International Conference on Recent Trends in Mathematics and its Applications (ICRTMA-09), March 30-31, 2009, Department of Mathematics, Jamia Millia Islamia, New Delhi, India.
- International Conference on Mathematical Modelling (ICMM-01), January 29-31, 2001, University of Roorkee, Roorkee, India.
- Indo-US Workshop on Problems in Elastic Vibrations, Smart Structure and Their Solution Technologies (Indo-US), January-2001, University of Roorkee, India.

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- Cone Week Professional Development Programme, Feb. 18 25, 2017, UGC-HRDC, Jamia Millia Islamia, New Delhi, India.
- Srd 3-Week Special Winter Program, Dec 17, 2014 Jan 08, 2015, Academic Staff College, Jamia Millia Islamia, New Delhi, India.
- \* 1st 3-Week Special Winter Program, Dec 11, 2012 Jan 01, 2013, Academic Staff College, Jamia Millia Islamia, New Delhi, India.
- \* Introductory Financial Mathematics, July 2 –13, 2012, Department of Mathematics, Indian Institute of Technology Delhi, New Delhi
- \* 76th Orientation Course, February 22- March 23, 2006, Academic Staff College, Jamia Millia Islamia, New Delhi, India.
- Mathematical Modelling of Real-Life Problems, July 4 15, 2005, QIP Centre, Indian Institute of Technology Roorkee, Roorkee.

Membership of Academic/ Professional Society

#### Life Member, Indian Mathematical Society, India

# Contact

Prof. Shehzad Hasan Department of Mathematics Jamia Millia Islamia, New Delhi – 110025, India E-mail: shasan@jmi.ac.in, drshehzadhasan@gmail.com