Dr. Taqseer Khan

1. PERSONAL AND SERVICE DETAILS

Name: **Taqseer Khan**
Position: **Assistant Professor in Department of Mathematics, Faculty of Natural Sciences, Jamia Millia Islamia (a central university) New Delhi-110025, India, since September 14, 2017**
Nationality: **Indian**
Gender: **Male**
Place of Birth: **Sirauli, Bareilly, UP-243303, India**
Nationality: **Indian**
Address (Office): Office 14, **Department of Maths, Faculty of Natural Sciences, Jamia Millia Islamia (a Central University), Jamia Nagar, New Delhi-110025, INDIA**
e-mail: tkhan4@jmi.ac.in

2. ACADEMIC QUALIFICATIONS

- **Ph.D.** (*Approximation by some Positive Linear Operators*), awarded on May 31, 2017, Aligarh Muslim University (AMU), Aligarh, India with 5 months research visit at the Ohio State University (OSU), Ohio, USA. **Phd Supervisor: Prof. M. Mursaleen, AMU, Aligarh, India, Co-supervisor**: **Prof. Jan Lang, OSU, USA**

- **MS Mathematics,** 2011, CGPA 3.22 on a 4 point scale, Central European University (CEU) (Accredited by Board of Education New York, USA), Budapest, Hungary
  MS Dissertation guide: Prof. Pal Hegedus, Renyi Institute of Mathematics, Budapest, Hungary
- **M.Sc. Mathematics**, 2008, **83.83%**, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India
- **B.Sc. (Hons.) Mathematics**, 2005, **72.26%**, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India
- **Intermediate** (Grade12), 77.20%, 2001, UP Board Allahabad, Uttar Pradesh, India
- **High School** (Grade 10), 63.83%, 1999, UP Board Allahabad, Uttar Pradesh, India

3. ADDITIONAL QUALIFICATION

- **UGC-SET** (Mathematical Sciences) for Assistant Professor, Roll No.: 03161847, 2015

4. ACADEMIC ACHIEVEMENTS

- **Topper** of Science group of college in High School (Grade 10), N. A. & I. Inter College Sirauli, Bareilly, UP, India, 1999
- **Topper** of college in Intermediate (Grade 12), N. A. & I. Inter College Sirauli, Bareilly, UP, India, 2001
- **Topper** (2nd) in B.Sc. (Hons.) of Dept of Mathematics, AMU, Aligarh, India, 2005
- **Topper** (Gold Medalist) in M.Sc. of Dept of Mathematics, AMU, Aligarh, India, 2008
- Only Indian among 7 selected for MS program to the Central European University (CEU) out of 3800 candidates from more than 100 countries in 2009
- Felicitated by the **CURSA (Central Universities Research Scholars Association, India)** with a momento and certificate for qualifying the international test of the CEU for MS program in 2009
- Selected for PhD program at the **University of Malaya, Kuala Lumpur, Malaysia (2017 World QS Ranking 133)** in 2013.
- Selected for the short term research at the Ohio State University under **the Indo-US STEM program** (formerly *"**OBAMA-SINGH** 21st CENTURY KNOWLEDGE INITIATIVE")* program between USA and India, funded by the US-India Educational Foundation (USIEF) and the Ohio State University, USA, 2016-17

- Recipient of the **Alburuj Best PhD Thesis Award**, Dept of Mathematics, Aligarh Muslim University, Aligarh, UP, India, 2018

5. EMPLOYMENT

- **Assistant Professor,** Dept of Mathematics, Jamia Millia Islamia (a central university), Jamia Nagar, New Delhi-25, India, since Nov. 17, 2017
- **Assistant Professor (contractual),** Dept of Mathematics, Jamia Millia Islamia (a central university), Jamia Nagar, New Delhi-25, India, during Sept. 14- Nov. 16, 2017
- **Lecturer** of Mathematics, Mass College of Engineering and Management, Hathras-Aligarh, UP, India, during the session 2012-2013
- Appointed Lecturer of Mathematics at **college of Preparatory Year at Mzahmiah, King Saud University**, KSA, 2013
- One semester teaching experience of undergraduate classes in the Department of Mathematics, Aligarh Muslim University, Aligarh during the academic session 2015-2016

6. SUPERVISIONS (PhD)

- Shuzaat Ali Khan (*On Approximation by Positive Linear Operators and Applications*), Dept of Mathematics, JMI, New Delhi-25, Awarded on August 23, 2022
- Mohd Shahbaz (*On Approximation by s-numbers of Linear Operators*), Dept of Mathematics, JMI, New Delhi-25, India, since October 17, 2019
- Gufran Malik, (*Approximation Theory*), Dept of Mathematics, JMI, New Delhi-25, India, since September 9, 2021

7. RESEARCH PUBLICATIONS

1. **Taqseer Khan,** S.A. Khan, N. Rao, *On Approximation by Bivariate Szasz- Gamme Type Hybrid Operators*, Bull. Math. Anal. Appl. **14**(1), 11-27 (2022)
2. **Taqseer Khan** and Shuzaat Ali Khan, *Approximation by Stancu Type Lupas Operators*, Palestine J. Math., 11(3), 700-707, (2022)
3. **Taqseer Khan**, Nadeem Rao, Shuzaat Ali Khan and Pradeep Malik, *On alpha-Baskakov-Gamma operators with two shifted nodes,* Palestine J. Math., **11**(2), 457-468 (2022)
4. **Taqseer Khan**, Nadeem Rao, Shuzaat Ali Khan, *Approximation Properties of (p, q) Bivariate Szasz Beta type Operators*, Ital. J. Pure Appl. Math. (accepted 2022)
5. Santosh Kaushik, **Taqseer Khan**, Harindri Chaudhary, Integral operators on grand Lebesgue spaces and related weights with properties, Filomat (accepted Feb 2022)
6. **Taqseer Khan**, Mohd Saif and Shuzaat Ali Khan, *Approximation by Generalizes q-Szasz-Mirakjan Operators*, J. Math. Anal., **6**(2), 9-21 (2021)
7. Ayub Khan, Pushali Trikha and **Taqseer Khan**, Secure Communication Using Modified Fractional and Inverse Matrices Synchronization Methods, SN Computer Science (2021) 2:91
8. **Taqseer Khan**, A. Khan and H. Chaudhary, *Controlling Chaos in a Newly Designed Chaotic Hamiltonian System Based*

on Hénon-Heiles Model using Active Controlled Hybrid Projective Synchronization, J. Sci. Res. **13** (2), 415-421 (2021)

9. **Taqseer Khan** and Harindri Chaudhary, *Adaptive Controllability of Microscopic Chaos Generated in Chemical Reactor System Using Anti-Synchronization Strategy,* Numer. Algebra Control Optim., 2021
10. **Taqseer Khan** and Harindri Chaudhary, *Combination anti-synchronization for chaos generated by generalized Lotka-Volterra biological systems using parameter identification method*, MESA **12** (2), 383-393 (2021)
11. **Taqseer Khan** and Harindri Chaudhary, *Estimation and Identifiability of Parameters for Generalized Lotka-Volterra Biological Systems Using Adaptive Controlled Combination Difference Anti-Synchronization,* Differ. Equ. Dyn Syst *(2020)*
12. **Taqseer Khan** and Harindri Chaudhary, *Projective Synchronization in Hyperchaotic Systems Using Adaptive Control Mathod*, Adv. Math. Sci. J. **9** (10), 7841-7849, (2020)
13. **Taqseer Khan** and Harindri Chaudhary, *Controlling and Synchronizing Combined Effect of Chaos Generated in Generalized Lotka-Volterra Three Species Biological Model using Active Control Design,* Appl. Appl. Math **15** (2), 1135-1148, (2020)
14. A. Khan, L. S. Jahanzaib, Nasreen, P. Trikha, **Taqseer Khan**, *Compound Difference Anti-Synchronization between Hyper-Chaotic Systems of Fractional Order,* J. Sci. Res. **12** (2), 175-181, (2020)

15. Ayub Khan, Lone Seth Jahanzaib, Pushali Trikha, **Taqseer Khan,** *Changing Dynamics of the First, Second & Third Approximates of the Exponential Chaotic System & their Synchronization,* J. Vib. Test. Sys. Dyn. **4** (4), 337-361, (2020)
16. **Taqseer Khan**, *On Statistical Approximation Properties of (p, q)-Bleimann-Butzer-Hahn operators,* JMI Int. J. Math. Sci. **10**, 26-47 (2019) (ISSN: 0976-5913)
17. M. Mursaleen, **Taqseer Khan**, *On (p, q)-analog of Stancu-Beta operators and their approximation properties,* TWMS J. App. Eng. Math. **8** (1), 136-143 (2018)
18. Mohammad Mursaleen, **Taqseer Khan**, Md Nasiruzzaman, *On the q-parametric Stancu type Dunkl generalization of the Kantorovich-Szasz-Mirakjan operators,* J. Math. Ext. **12** (3), 105-129 (2018) (ISSN: 1735-8299)
19. O. Baksi, **Taqseer Khan**, J. Lang, Vit Musil, *Strict s-Numbers of the Volterra operator,* Proc. Amer. Math. Soc. (2017), Article ID: PROC13769
20. M. Mursaleen, **Taqseer Khan**, *On Approximation by Stancu Type Jakimovski-Leviatan-Durrmeyer Operators,* Azer. J. Math. **7** (1), 16-26, (2017) (ISSN: 2218-6816)
21. M. Mursaleen, **Taqseer Khan**, Md Nasiruzzaman, *Approximating properties of generalized Dunkl analogue of Szasz operators,* Appl. Math. and Inf. Sci. **10** (6), 1-8, (2016)
22. M. Mursaleen, **Taqseer Khan**, *Approximation properties of the generalized q-Bernstein-Schurer-Kantorovich Operators,* J. Nonlinear Funct. Anal. 2016 (2016), Article ID 28.

23. M. Mursaleen, **Taqseer Khan**, *Some approximation results for the Stancu type q-Bernstein-Schurer-Kantorovich operators,* Comm. Appl. Anal. **20**, 187-208, (2016)

24. Mohammad Mursaleen, Abdizhahan M. Sarsenbi, **Taqseer Khan**, *On (p, q)-analogue of two parametric Stancu-Beta operators,* J. Inequal. Appl., 2016 (2016):190

25. L. N. Mishra, A. Srivastava, **Taqseer Khan**, S. A. Khan and V. N. Mishra, *Inverse theorems for some linear positive operators using Beta and Baskakov basis functions,* AIP Conference Proceedings **2364,** 020028 (2021); https://doi.org/10.1063/5.0062925

26. Ayub Khan, Lone Seth Jahanzaib, **Taqseer Khan** and Pushali Trikha, *Secure Communication: Using Fractional Matrix Projective Combination Synchronization,* AIP Conference Proceedings **2253**, 020009 (2020); https://doi.org/10.1063/5.0018974

8. ATTENDED CONFERENCE/PRESENTATIONS/TALKS

- Participated in the "**International Conference on Analysis and its Applications (ICAA-08)**" held at the Department of Mathematics, Aligarh Muslim University, Aligarh, India during Nov. 3-5, 2008
- Participated in the "***International Conference on Recent Trends in Algebra and Analysis with Applications*** **(ICRTAAA-2014)**" held at the Department of Mathematics, Aligarh Muslim University, Aligarh, India during Feb.12-14, 2014
- Participated in the "***International Conference on Recent Advances in Mathematical Biology, Analysis and its Applications*** **(ICMBAA-2015)"** held at the Department of Applied Mathematics, Aligarh Muslim University, Aligarh, India during June 4-6, 2015
- Participated in the "***International Conference on Analysis and its Applications*** **(ICAA-2015)**" held at the Department of

Mathematics, Aligarh Muslim University, Aligarh, India, during Dec. 19-21, 2015 and presented a paper entitled "Some Approximation properties of (p, q)-Bleimann-Butzer- Hahn operators"

- Participated in the **"Current Developments in Mathematics 2016 Conference"** held at the Department of Mathematics, Harvard University, Boston, USA, during Nov. 18-19, 2016
- Delivered an **invited talk** in the seminar of Analysis and Operator Theory at the Department of Mathematics, **The Ohio State University, USA**, on December 28, 2016 (Length of the talk: 55 minutes)
- Chaired a session in the **International Conference on Mathematical Analysis and its Applications (ICMAA-2019)** held at Department of Mathematics, The South Asian University (SAU), New Delhi, INDIA, during Dec. 14-16, 2019
- Participated and presented a paper (online) titled Controlling Chaos Generated in Predator-prey Interactions Using Adaptive Hybrid Combination Synchronization in the **3rd International Conference on Computing Informatics & Networks (ICCIN-2020),** organized by Department of Computer Science and Engineering, Bhagwan Parshuram Institute of Technology, New Delhi, INDIA
- Participated and presented a paper (online) titled Chaos Synchronization among Identical Chaotic New Hamiltonian Systems using Active Control Method in the **International Conference on Discrete and Applied Mathematics (ICDAM-2020),** organized by the Center for Studies in Discrete Mathematics (CSDM), Vidya Academy of Science and Technology, Trissur, Kerala, in association with Kerala Mathematical Association (KMA), during Sep 18-19, 2020, INDIA

9. TRAINING/REFRESHER COURSE ATTENDED

- Attended workshop: **Instructional School for Teachers on Topology** held at Indian Institute of Technology Bombay (IITB) conducted jointly by IITB and Tata Institute of Fundamental Research (TIFR) Bombay, INDIA, during May 09-21, 2016
- Attended **One Month Induction Training of Faculty in Universities/Colleges/ Institutions** jointly organized by the School of Education and the at UGC-Human Resource Development Center, Jamia Millia Islamia (a central

university), New Delhi, INDIA, during February 20-March 23, 2018

- Attended the 01st **three-week Refresher Course in Computational and Mathematical Studies (Computer Science, Mathematics and Statistics)** organized by the UGC-HRDC, Jamia Millia Islamia (a central university), New Delhi, INDIA, during August 29-Sept 19, 2018.
- Attended **two-week Rerfresher Course in Mathematics** organized by "Department of Mathematics", Ramanujan College, University of Delhi, New Delhi, INDIA, during March 16-30, 2021
- Attended the webinar **If You Know- The Art of Accurate Referencing in Academic Works** organized by ProQuest, held on August 27, 2021
- Attended One Week Interdisciplinary online Faculty Development Program (FDP-56) on **Graph Theory and its Applications** conducted by Deshbandhu College, University of Delhi, INDIA, in collaboration with Hansraj College, University of Delhi, New Delhi, India, during September 15-21, 2021
- Attended **two-week Rerfresher Course in Applicable Mathematics** organized by Teaching Learning Center, Ramanujan College, University of Delhi, New Delhi, INDIA, during December 15-29, 2021

10. FOREIGN VISITS

- Hungary (study)
- United States of America (study)

11. CONTRIBUTION TO THE SOCIETIES

(a) MEMBER

- Member, Mathematical Reviews, AMS, USA

12. AWARDS/FELLOWSHIPS

- Received a certificate and momento, for obtaining first

position in Science group in High School (Grade 10) in 1999, conferred by the N.A.&I. Inter College, Sirauli, Bareilly, UP-243303, India

- Received a certificate and momento, for being topper of the College in Intermediate (Grade 12) in 2001, conferred by the N.A.&I. Inter College, Sirauli, Bareilly, UP-243303, India
- Awarded Ozair Ahmad Memorial PG scholarship for standing first in the competitive test held at Department of Mathematics, Aligarh Muslim University, Aligarh, Uttar Pradesh-202002, India, during M.Sc. in 2007
- Awarded full fellowship by the **Central European University, Hungary,** Europe to study MS in 2009
- Awarded **UGC-JRF (MANF) 2014**, Award No. F1-17.1/2013-14/MANF-2013-14-MUS-UTT-23310 by UGC, New Delhi, India during PhD, 2014-2016
- Awarded the **UGC-SRF 2016** Award No. F1-17.1/2013-14/MANF-2013-14-MUS-UTT-23310 by UGC, New Delhi, India, 2017
- Awarded the **US-India Educational Foundation (USIEF)** funds for five months research training at the Ohio State University, USA, 2016
- Awarded the travel grant of $500 by Harvard University to attend the conference CDM 2016 at the **Dept. of Mathematics, Harvard University, Boston, USA** during Nov. 18-19, 2016
- Conferred the **Alburuj Best PhD thesis award by** Department of Mathematics, Aligarh Muslim University, 202002 Aligarh, India in 2018

13. ADMINISTRATIVE DUTIES

- **Assistant Superintendent** of Compartment Examination for PG Courses, Department of Mathematics, JMI, New Delhi, INDIA, held during Oct. 14-25, 2019
- **Attendance In-Charge**, Department of Mathematics, Jamia Millia Islamia (a central university), New Delhi, India, 2020
- Course Adviser, B.Sc. (Hons.)/ Applied Mathematics, Semester-III, Department of Mathematics, Jamia Millia Islamia (a central university), New Delhi, India, 2020
- **Assistant Superintendent** of Compartment Examinations for PG Courses at Department of Mathematics, JMI, New Delhi, INDIA, held during Dec. 1-11, 2020

- **Member of Pre-Screening Committee for the post of Assistant Professor (Mathematics),** University Polytechnic, JMI, New Delhi, IMDIA, held on Nov. 23, 2020 in Recruitment and Promotion Section (RPS), JMI, New Delhi, India
- **Time Table and Examination In-charge** (2021), Department of Mathematics, Jamia Millia Islamia (a central university), New Delhi, India
- **Member of Technical-cum-Sub-Purchase Committee** (2021) at Department of Mathematics, Jamia Millia Islamia (a central university), New Delhi, India
- **Library In-Charge** (2020, 2021), Department of Mathematics, Jamia Millia Islamia (a central university), New Delhi, India
- **Referee** to conduct interviews for award of JTA (Jamia Teachers Associations) need-cum-merit Scholarship (2021), Jamia Millia Islamia (a central university), New Delhi, India
- **Moderator** of UG/PG Courses for Odd Semester Examinations, Department of Mathematics, JMI, New Delhi, INDIA, held on Jan 8, 2021
- **Moderator** of UG Courses for Odd Semester Examinations, Department of Mathematics, JMI, New Delhi, INDIA, held on Aug 9, 2021

14. COURSES TAUGHT

- **UG Level**
  Trigonometry, Linear Algebra, Group Theory, Ring Theory, Probability & Statistics, Real Analysis, Ordinary Differential Equations, Partial Differential Equations, Complex Analysis, Matrices And Vector Calculus, Co-ordinate Geometry, Integral Equations
- **PG Level**
  Complex Analysis, Funtional Analysis, Metric Spaces and Topology
- **Ph.D. Corse Work** (2022-23)

15. COMPUTER

- LateX, MS Office, MS Excel, internet

16. LANGUAGES

- English (efficient both in writing and speaking)
- Arabic (read only)
- Urdu (both read and write)
- Hindi (native)

17. REFERENCES

- Professor Shehzad Hasan
  Head of Department of Mathematics, Jamia Millia Islamia (a Central University), Jamia Nagar, New Delhi-110025, INDIA
  Phone: +91-9818317176
  Email: shasan@jmi.ac.in
- Professor Jan Lang
  Department of Mathematics, Ohio State University, Ohio, USA
  Email: lang.162@osu.edu
- Professor M. Mursaleen (Retd.)
  Department of Mathematics, Aligarh Muslim University, Aligarh, UP-202002, India; Visiting Professor, China Medical University, Taiwan, Phone: +91-9411491600
  Email: mursaleenm@gmail.com
- Professor Pal Hegedus,
  Department of Mathematics, Renyi Institute of Mathematics, Budapest, Hungary,
  Email: hegedus.pal@renyi.hu

I vouch for the authenticity of the aforementioned facts.

(Dr. Taqseer Khan)