

## CURRICULUM VITAE

### PERSONAL DATA

<b>Name</b>	<b>MOHAMMADI BEGUM JEELANI SHAIKH</b>
<b>Nationality</b>	Indian
<b>Position</b>	<b>Assistant Professor</b>
<b>E-Mail</b>	mbshaikh@imamu.edu.sa
<b>Phone</b>	97172

### EDUCATION

<b>Year</b>	<b>Academic Degree</b>	<b>Institution</b>
2012	Ph.D	BSP University, India
2008	M.Sc	Osmania University, India
2006	B.Sc	Osmania University, India

### WORK EXPERIENCE

<b>Period</b>	<b>Position</b>	<b>Address</b>
2014-present	Assistant professor	Imam Mohammad Ibn Saud Islamic University.

### RESEARCH INTERESTS

Mathematical modeling, Fractional calculus, Differential equation, Numerical Analysis.

## PUBLICATIONS

1. A study of the time fractional Navier-Stokes equations for vertical flow

Published: 2023 in AIMS Mathematics

DOI: 10.3934/MATH.2023437

2. Existence and uniqueness results for mixed derivative involving fractional operators

Published: 2023 in AIMS Mathematics

10.3934/MATH.2023371

DOI:

3. A Detailed Mathematical Analysis of the Vaccination Model for COVID-19

Published: 2023 in CMES - Computer Modeling in Engineering and Sciences

10.32604/CMES.2022.023694

DOI:

4. Stability results for fractional integral pantograph differential equations involving two Caputo Operators.

Published: 2023 in AIMS Mathematics

DOI: 10.3934/MATH.202330

5. Approximation by Operators for the Sheffer-Appell Polynomials

Published: Dec 2022 in Symmetry

DOI: 10.3390/SYM14122672

6. Mild Solution for the Time-Fractional Navier-Stokes Equation Incorporating MHD Effects

Published: Oct 2022 in Fractal and Fractional

DOI: 10.3390/FRACTALFRACT6100580

7. Pattern Formation Induced by Fuzzy Fractional-Order Model of COVID-19

Published: Jul 2022 in Axioms

DOI: 10.3390/AXIOMS11070313

8. MHD Williamson Nanofluid Fluid Flow and Heat Transfer Past a Non-Linear Stretching Sheet Implanted in a Porous Medium: Effects of Heat Generation and Viscous Dissipation

Published: Jun 2022 in Processes

DOI: 10.3390/PR10061221

**9.** Magnetohydrodynamic Effects on Third-Grade Fluid Flow and Heat Transfer with Darcy Forchheimer Law over an Inclined Exponentially Stretching Sheet Embedded in a Porous

Medium

Published: Jun 2022 in Magnetochemistry

DOI: 10.3390/MAGNETOCHEMISTRY8060061

**10.** Darcy-Hochheimer Relation Influence on MHD Dissipative Third-Grade Fluid Flow and Heat Transfer in Porous Medium with Joule Heating Effects: A Numerical Approach

Published: May 2022 in Processes

DOI: 10.3390/PR10050906

**11.** Qualitative Analyses of Fractional Integrodifferential Equations with a Variable Order under the Mittag-Leffler Power Law

Published: Apr 2022 in Journal of Function Spaces

DOI: 10.1155/2022/6387351

**12.** Convective Heat and Mass Transfer in Third-Grade Fluid with Darcy-Forchheimer Relation in the Presence of Thermal-Diffusion and Diffusion-Thermo Effects over an Exponentially Inclined Stretching Sheet Surrounded by a Porous Medium: A CFD Study

Published: Apr 2022 in Processes

DOI: 10.3390/PR10040776

**13.** Significance of Chemical Reaction and Lorentz Force on Third-Grade Fluid Flow and Heat Transfer with Darcy-Forchheimer Law over an Inclined Exponentially Stretching Sheet Embedded in a Porous Medium

Published: Apr 2022 in Symmetry

DOI: 10.3390/SYM14040779

**14.** Numerical Investigations of the Fractional-Order Mathematical Model Underlying Immune Chemotherapeutic Treatment for Breast Cancer Using the Neural Networks

Published: Apr 2022 in Fractal and Fractional

DOI: 10.3390/FRACTALFRACT6040184

**15. Legendre spectral collocation method for distributed and Riesz fractional convection–diffusion and Schrödinger-type equation (ISI)**

MA Abdelkawy, **MB Jeelani**, AS Alnahdi, TM Taha, EM Soluma.  
Boundary Value Problems 2022 (1), 1-15

**16. BOOK-chapter : Advances in Deep Learning for Medical Image Analysis**

6 chapter: Artificial Intelligence and Machine Learning: A Smart Science Approach for Cancer Control. (ISI)

K Dehingia, **MB Jeelani**, A Das.  
Advances in Deep Learning for Medical Image Analysis, 87.

**17. Numerical Investigations of the Fractional-Order Mathematical Model Underlying Immune-Chemotherapeutic Treatment for Breast Cancer Using the Neural Networks. (ISI)**

Z Sabir, M Munawar, MA Abdelkawy, MAZ Raja, C Ünlü, **MB Jeelani**, Alnahdi A.  
Fractal and Fractional 6 (4), 184

**18. Existence and Uniqueness of Mild Solution Where  $\alpha \in (1, 2)$  for Fuzzy Fractional Evolution Equations with Uncertainty. (ISI)**

R Shafqat, AUK Niazi, **MB Jeelani**, NH Alharthi  
Fractal and Fractional 6 (2), 65.

**19. Some families of differential equations associated with the Gould-Hopper-Frobenius-Genocchi polynomials. (ISI)**

R Alyusof, **MB Jeelani**  
AIMS Mathematics 7 (3), 4851-4860.

**20. Numerical investigations of the nonlinear smoke model using the Gudermannian neural networks (ISI)**

Z Sabir, MAZ Raja, AS Alnahdi, **MB Jeelani**, MA Abdelkawy  
Mathematical Biosciences and Engineering 19 (1), 351-370.

**21. Study of the Atangana-Baleanu-Caputo type fractional system with a generalized Mittag-Leffler kernel (ISI)**

**MB Jeelani**, AS Alnahdi, MA Almalahi, MS Abdo, HA Wahash, ...  
AIMS Mathematics 7 (2), 2001-2018.

**22. On a nonlocal implicit problem under Atangana–Baleanu–Caputo fractional derivative (ISI)**

AS Alnahdi, **MB Jeelani**, MS Abdo, SM Ali, S Saleh  
Boundary Value Problems 2021 (1), 1-18.

- 23. Nonlocal and multiple-point fractional boundary value problem in the frame of a generalized Hilfer derivative (ISI)**

W Shatanawi, A Boutiara, MS Abdo, **MB Jeelani**, K Abodayeh.  
Advances in Difference Equations 2021 (1), 1-19.

- 24. On nonlinear pantograph fractional differential equations with Atangana–Baleanu–Caputo derivative (ISI)**

MS Abdo, T Abdeljawad, KD Kucche, MA Alqudah, SM Ali, **MB Jeelani**  
Advances in Difference Equations 2021 (1), 1-17.

- 25. Mathematical Modeling and Forecasting of COVID-19 in Saudi Arabia under Fractal-Fractional Derivative in Caputo Sense with Power-Law (ISI)**

**MB Jeelani**, AS Alnahdi, MS Abdo, MA Abdulwasaa, K Shah, HA Wahash  
Axioms 10 (3), 228

- 26. Positive solutions for fractional boundary value problems under a generalized fractional operator (ISI)**

**MB Jeelani**, AM Saeed, MS Abdo, K Shah  
Mathematical Methods in the Applied Sciences 44 (11), 9524-9540.

- 27. A Brief Review On Cancer Research And Its Treatment Through Mathematical Modelling**  
K Dehingia, HK Sarmah, **MB Jeelani**  
Annals of Cancer Research and Therapy 29 (1), 34-40.

- 28. Fully Legendre spectral collocation technique for stochastic heat equations. (ISI)**

MA Abdelkawy, H Ahmad, **MB Jeelani**, AS Alnahdi  
Open Physics 19 (1), 921-931.

- 29. Existence and Ulam–Hyers Stability of a Fractional-Order Coupled System in the Frame of Generalized Hilfer Derivatives (ISI)**

AM Saeed, MS Abdo, **MB Jeelani**  
Mathematics 9 (20), 2543.

- 30. Some Applications of Differential Transform Methods to Stiff Differential Equations**  
**MBJ Shaikh**  
International Journal of Applied Engineering Research 14 (4), 877-880.

### 31. An Approach to Van Der Waerden's Theorem using Topological Dynamics

**MBJ Shaikh**, JB Anasuya

International Journal of Mathematics Trends and Technology (IJMTT).

#### **Employment History:**

October-2014 – Present: Assistant Professor , Imam Mohammad Ibn Saud Islamic University, College of Science, Department of Mathematics, Riyadh, KSA.

#### **Conferences:**

- Participated in the [5<sup>th</sup> Conference on Mathematical Science and Applications \(CMSA\) 2021](#) at KAUST University, SAUDI ARABIA.
- Presented a paper titled “Nonlocal and multiple-point fractional boundary value problem in the frame of a generalized Hilfer derivative” at [4<sup>th</sup> International Conference on Mathematical Modelling, Applied Analysis and Computation – 2021](#), at JECRC University Jaipur, INDIA.
- Presented a paper titled “ Positive Solutions for Fractional Boundary Value Problems under a Generalized Fractional Operator ” [9<sup>th</sup> \(Online\) International Conference on Applied Analysis and Mathematical Modeling](#), on June 11-13, 2021, Biruni University, Istanbul-TURKEY.