

# Dr. Shainky Ruhela

## Curriculum Vitae

Assistant Professor  
Department of Mathematics  
Maharani Lal Kunwari Snatkottar Mahavidyalaya  
Balrampur(U.P.),India  
☎ +918630952862(Whatsapp only)  
✉ shainkyruhela786@gmail.com



*"As time progresses, your discipline, honesty, consistency and humbleness take you towards perfection with a soul of infinite potential."*

### Current Academic Position

July 2022 – Present – **Assistant Professor**, Department of Mathematics, Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India (**Government Aided College**), Selected through **Uttar Pradesh Higher Education Service Commission (UPHESC)**.  
(Appointed Category: **Unreserved**)

### Research Interests

- Fuzzy Automata Theory
- Category Theory
- Rough Set Theory and its Applications
- Fuzzy Graph Theory
- Logic and Foundations of Mathematics
- Fuzzy Modelling and Multi-Criteria Decision Making

### Academic Qualification

- 2019 – 2024 **Doctor of Philosophy(Ph.D.)**, Central University of Rajasthan (NAAC – A++), India.
- 2016 – 2018 **M.Sc. (Mathematics)**, Faculty of Mathematical Sciences (North Campus), University of Delhi, India.
- 2013 – 2016 **B.Sc. (Hons.) Mathematics**, Kirori Mal College, University of Delhi, India.
- 2013 **Intermediate**, Board of High School and Intermediate Education U.P., India.
- 2011 **High School**, Board of High School and Intermediate Education U.P., India.

### Other Qualifications/Achievements

- **CSIR NET-JRF (Dec 2018)**, Mathematical Sciences.
- **GATE 2018**, Mathematics (MA).
- **DST-INSPIRE Scholar (2013 – 2018)**, Scholarship for Higher Education.

## Courses Taught

- Linear Algebra
- Real Analysis
- Metric Spaces
- Functional Analysis
- Abstract Algebra
- Fuzzy Set Theory and Applications
- Discrete Mathematics
- Complex Analysis
- Measure Theory
- Numerical Analysis
- Ring Theory and Module Theory

## Administrative Responsibilities

1. **Course Coordinator (M.C.A.)**, Maa Pateswari University, Balrampur, Uttar Pradesh, India.
2. **Invited Member, Board of Studies (Mathematics for M.C.A. Programme)**, Maa Pateswari University, Balrampur, Uttar Pradesh, India.
3. **Member, NAAC Criteria-5 (Student Support and Progression)**, Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur, Uttar Pradesh, India.
4. **Member, Student Welfare and Counselling Committee**, Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur, Uttar Pradesh, India.
5. **Member, Admission Committee**, Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur, Uttar Pradesh, India.
6. **Member, Cultural Committee**, Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur, Uttar Pradesh, India.

## Technical Skills

Mathematical Software MATLAB, Mathematica

Documentation Tools  $\text{\LaTeX}$  (Overleaf)

Computer Skills MS Word, MS Excel, MS Power-point

## Research Profile

- Google Scholar Profile: <https://scholar.google.com/citations?user=XlCMa1sAAAAJ>
- Research Gate Profile: <https://www.researchgate.net/profile/Shainky-Ruhela>
- Orcid Profile: <https://orcid.org/0000-0003-3164-9657>
- Scopus ID: <http://www.scopus.com/authid/detail.url?authorId=59248104400>
- Web of Science ResearcherID: <https://www.webofscience.com/wos/author/record/PKG-4130-2026>
- Vidwan Profile: <https://vidwan.inflibnet.ac.in/profile/683902>
- Website: <https://sites.google.com/view/drshainkyruhela>

## Research Papers (Published/Accepted)

1. Mausam Kumari, Vijay K. Yadav, **Shainky Ruhela** and S. P. Tiwari (2024), "On categories associated with crisp deterministic automata with fuzzy rough outputs and fuzzy rough languages", *Soft Computing*, 28(17), 9233-9252. (**Scopus, SCIE, Web of Science**)  
<https://doi.org/10.1007/s00500-024-09818-5>

2. **Shainky Ruhela**, Sunny Vema, Vijay K. Yadav, S. P. Tiwari (2024), "Topological approaches in characterization of algebraic structure of fuzzy multiset finite automata", *New Mathematics and Natural Computation*, 21(03), 839-865. (**Scopus, ESCI, Web of Science**)  
<https://doi.org/10.1142/S1793005726500043>
3. **Shainky Ruhela**, Apostolos Syropoulos, Vijay K. Yadav, B. K. Sharma and S. P. Tiwari (2024), "On characterization of algebraic structure of fuzzy multiset finite automata", *New Mathematics and Natural Computation*, 22(02), 593-628. (**Scopus, ESCI, Web of Science**)  
<https://doi.org/10.1142/S1793005726500298>
4. Sunny Verma, Mausam Kumari, **Shainky Ruhela** and Vijay K. Yadav (2025), "Weighted hesitant fuzzy finite rough automaton: a computing model for natural language processing" *New Mathematics and Natural Computation*, 21(03), 1077-1106. (**Scopus, ESCI, Web of Science**)  
<https://doi.org/10.1142/S1793005725500528>
5. Sunny Verma, Vijay K. Yadav, **Shainky Ruhela**, Swati Yadav, Binod K. sharma (2025), "On Brzozowski's algorithm, pumping lemma and monoid representation for a typical hesitant fuzzy multiset language", *International Journal of Information Technology*. (**Scopus**)  
<https://doi.org/10.1007/s41870-025-02644-4>

### Conference Presentations

1. Presented a paper at *International Conference on "Recent Trends in Mathematical and Computational Sciences"*, organized by the Department of Statistics, Amity Institute of Applied Sciences, Amity University Kolkata, West Bengal, India, held on July 28–29, 2022 (Online Mode).
2. Presented a paper at *International Conference on "Role of Mathematics for the Development of Science and Society"*, organized by the Department of Mathematics, Tripura University (A Central University), Suryamaninagar, Tripura, India, held on December 21–22, 2023 (Online Mode).
3. Presented a paper at *International Conference on "Advances in Applied Mathematics" (ICAAM-2024)*, organized by the Department of Mathematics, University College of Science, Tumkur University, Tumakuru, Karnataka, India, held on January 10–11, 2024 (Online Mode).

### M.Sc. Projects / Dissertations Supervised

1. **Mo Suphiyan Khan**, "Some Problems on Fuzzy Automaton," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.
2. **Mateshwari Prasad Shukla**, "Some Problems on Fuzzy Relations," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.
3. **Himanshu Shukla**, "Exploring  $\alpha$ -Fuzzy Subgroups in Algebra," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.
4. **Nikhil Srivastava**, "Exploring Fuzzy Rings and Fuzzy Ideals in Algebra," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.
5. **Roli Tiwari**, "A Study of Fuzzy Complements," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.
6. **Rishita Srivastava**, "A Study of Fuzzy Subgroups and its Application," Maharani Lal Kunwari Snatkottar Mahavidyalaya, Balrampur (U.P.), India.

## Professional Development Programmes

1. Attended **Online Subject Refresher Course in Mathematical Sciences**, organized by UGC MMTTC, Aligarh Muslim University, Aligarh, held December 10–23, 2025.
2. Attended **22 Online Faculty Induction Programme**, organized by UGC MMTTC, Aligarh Muslim University, Aligarh, under UGC, held September 10–October 9, 2024.
3. Attended **Five-Day International Online FDP on “Exploring Recent Trends in Applied Mathematics and Machine Learning”**, organized by the Department of Mathematics, Koneru Lakshmaiah Educational Foundation (Deemed to be University), Bachupally Campus, Hyderabad, held May 20–24, 2024.
4. Attended **Seven Day International Virtual Faculty Development Programme on “Research Insights for Academic Excellence”**, organized by the Department of Mathematics, KPR College of Arts Science and Research, Coimbatore, Tamil Nadu, India, held August 3–9, 2023.
5. Attended **A Five-Day Online FDP on “Recent Emerging Trends of Research in Mathematics-2”**, organized by the Division of Mathematics, School of Advanced Sciences, Vellore Institute of Technology, Chennai, held May 8–12, 2023.

## Training/ Workshops

1. Attended **Online National Workshop on “Promoting Ethical Research Culture and Responsible Publishing” (PERCRP-26)**, organized by the Research and Development Cell, Maa Pateswari University, Balrampur, U.P., India, held January 21–22, 2026 (Online Mode).
2. Attended **International Workshop on “Numerical Methods in ODEs/PDEs & Computational Intelligence”**, organized by Department of Mathematics, KS Saket PG College, Ayodhya, U.P., India, held March 18–22, 2024 (Online Mode).
3. Attended **One-week International Online Short Term Training Program on “Mathematical Modeling and Computational Software”**, organized by the Department of Mathematics, Hindusthan Institute of Technology, Coimbatore, Tamil Nadu, India, held March 27–April 1, 2023.
4. Attended **Workshop on “Introduction to Math Computing using SageMath”**, organized by the Department of Mathematics, University of Calicut, Kerala, India, held December 8–24, 2022 (Online Mode).
5. Attended **One week Training Program on “STUTI on Mathematics for Machine Learning”**, funded by the Department of Science and Technology (DST), Government of India and organized by DST-Centre for Interdisciplinary Mathematical Sciences, Institute of Science, Banaras Hindu University, Varanasi, under the aegis of DST-STUTI Programme of IIT(ISM) Dhanbad, held September 19–25, 2022.
6. Attended **One Week Short Term Training Program on “Computational Software (MATLAB & MATHEMATICA)”**, organized by the Department of Applied Mathematics and Humanities, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, under the Centre for Continuing Education (CCE), held October 05–09, 2020. (Online Mode).
7. Attended **International Online Workshop on “New Trends in Fuzzy and Rough Set Theory and its Applications [FRSTA – 2020]”**, organized by the Department of Mathematics and Statistics, School of Basic Sciences, Manipal University Jaipur, India, held September 25 – 29, 2020.
8. Attended **Python 3.4.3 Training** under the Spoken Tutorial Project, **Indian Institute of Technology (IIT) Bombay**, organized at **Kirori Mal College, D.U**, during July–August 2020 and funded by the National Mission on Education through ICT, Ministry of Education, Government of India (Online Mode).

## Languages

Hindi, English

## Personal Details

Nationality Indian

Religion Hindu

Gender Male

Year of Birth 1996

## Office Address-

Department of Mathematics,  
Maharani Lal Kunwari Snatkottar Mahavidyalaya,  
Balrampur, U.P., India,  
Pin Code - 271201.

## Declaration

I hereby declare that above-furnished information is correct and true to the best of my knowledge and belief.

**Dr. Shainky Ruhela**