



Faculty Profile on University Website

www.mjpru.ac.in

Title	Dr.	First Name	Ram	Last Name	Keval	Photograph
Designation		Professor				
Department		Department of Applied Mathematics, M. J. P. Rohilkhand University, Bareilly, U.P., India, 243006.				
Address	Campus	Applied Mathematics Department, M. J. P. Rohilkhand University, Bareilly.				
	Residence	Type-IV, B-06, Faculty Awas, M. J. P. Rohilkhand University Campus, Bareilly.				
Mobile No.		8800716362				
Email ID		Personal		ramkeval@gmail.com , ramkeval2012@gmail.com		
		University Domain		ramkeval@mjpru.ac.in		
Professional Networking ID, i.e. LinkedIn, Twitter etc.		https://www.linkedin.com/in/ram-keval-37a67416/				
Orcid ID		0000-0002- 1754-0033				
Google Scholar ID		https://scholar.google.co.in/citations?user=wsRBws0A-AAAJ&hl=en				
Vidwan ID		141472				
Educational Qualifications (Graduation Onwards)						
Course/Degree		Institution		Year	Details/Thesis Topic/Subjects	
BSc		Lucknow University		2005	PCM	
MSc		IIT Roorkee		2007	Applied Mathematics	
PhD		IIT Roorkee		2015	Mathematical Modelling	

Career Profile					
Organization / Institution		Designation	Duration	Nature of Duties	
Lakshmi Bai College, Delhi University, Delhi		Assistant Professor	2013 - 2014	Teaching	
Keshav Mahavidyalaya, Delhi University, Delhi		Assistant Professor	2014 - 2016	Teaching	
M. M. M. University of Technology Gorakhpur		Assistant Professor	2016 - 2023	Teaching and Research	
M. J. P. Rohilkhand University, Bareilly, UP		Associate Professor	2023 - 2026	Teaching and Research	
M. J. P. Rohilkhand University, Bareilly, UP		Professor	2026 - onwards	Teaching and Research	
Research Interests / Specialization					
My research Area is Mathematical Modeling of infectious disease like Hepatitis C Virus, Encephalitis, Dengue etc.					
Research Experience in Years - 13 years					
No of Research Scholars Successfully Guided - 03					
Name of Programme		Awarded		Under Supervision	
Ph.D.		03		05	
M.Phil.					
Dissertation (M.Ed./M.A./M.Sc.)		18		11	
Researcher/ Expert ID	Scopus	Orchid	Publons	Vidwan	Google Scholar
	https://www.scopus.com/authorid/detail.uri?authorId=55812374300	0000-0002-1754-0033		141472	https://scholar.google.co.in/citations?user=wsRBws0AAAAJ&hl=en
Teaching Experience (Subjects/Courses Taught)					
1. Subjects taught in BSc -Numerical Methods, Linear Algebra, Calculus, Complex Analysis, and Statistics etc. 2. Subjects taught in B. Tech. - Engineering Mathematics-I, -II, -III and -IV etc. 3. Subject taught in M. Tech. - Advanced Engineering Mathematics. 4. Subject taught in MSc – Mathematical Methods, Mathematical Modeling etc.					
Honours / Awards & Fellowship FOR OUTSTANDING WORK					
Name of Award/		Awarded By			

Fellowship			Name of Governmental Agency			Name of Government Supported Organization/ Department		Name of International Recognized Body	
CSIR - UGC			CSIR - UGC			UGC			
Publications /Academic Activities (Numbers Only)									
Books & Monographs (Single Author)		Research Papers Published in International Journals	24	Papers Presented in Seminars/ Conferences	09	Seminars/ Conferences Organized		Research Projects (Completed)	
Books (Co-authored)		Research Papers Published in Other Journals	02	Seminar/ Conferences Attended	33	Workshops Organized	02	Research Projects (Ongoing)	
Books (Edited)		Articles Published in Popular Fora, e.g., Websites, Blogs, Newspapers, Magazines etc.		Sessions Chaired in Seminars/ Conferences		Membersh ip of Academic/ Profession al Bodies	01	Foreign Countries Visited for Academic Assignme nts	01
Chapters in Edited Books	07			Resource Lectures Delivered	06				

Details of Publications /Academic Activities (2010 Onwards)					
(a) Authored Books/ Monographs					
Name of Book		Year of Publication	Publisher	ISBN No	
Mathematical Biology and Biological Physics		2017(https://doi.org/10.1142/9789813227880_0008)	World Scientific	978-981-3227-89-7	
(b) Edited Books					
Year of Publication	Title	Publisher	ISBN	DOI No.	Citations
(c) Papers Published in UGC Care Listed /Indexed/ Peer Reviewed Journals					
Year of Publication	Title	Name of Journal	ISSN No	Citations	Impact Factor
2013	Modeling the dynamics of Hepatitis C Virus with combined antiviral drug therapy: Interferon and Ribavirin	Mathematical Biosciences	0025-5564	<u>25</u>	3.935
2016	Global dynamics of Hepatitis C Viral infection with logistic proliferation	International Journal of Biomathematics	1793-7159		<u>2.2</u>
2018	Influence of Intracellular Delay on the Dynamics of Hepatitis C Virus	International Journal of Applied and Computational Mathematics	2199-5796		
2020	The influence of vaccination on the control of JE with a standard incidence rate of mosquitoes, pigs and humans	Journal of Applied Mathematics and Computing	1598-5865	<u>9</u>	2.2
2021	A comparative series solutions of Japanese encephalitis model using differential transform method and variational iteration method”	WILLY-Heat Transfer	2688-4542		
2021	Analysis for transmission of dengue disease with different class of human population	<i>Epidemiologic Methods</i>	2161-962X	<u>5</u>	

2021	The impact of time delay in the transmission of Japanese encephalitis without vaccination	Proyecciones Journal of Mathematics	0717-6279		
2022	A mathematical study of dynamical model for Japanese encephalitis-dengue co-infection using JE vaccine	International Journal of Mathematical Modelling and Numerical Optimisation			
2022	Modeling optimal vaccination strategy for dengue epidemic model: a case study of India	Physica Scripta	0031-8949	2	
2022	Quantum-Resistant Public-key Encryption and Signature Schemes with Smaller Key Sizes	Cluster Computing			2.3
2024	Mathematical modelling for co-infection dynamics of Japanese encephalitis-Dengue and influence of JE Vaccine on Dengue disease - 43 (1), 1-39	Proyecciones Journal of Mathematics	07160917		
2025	Stability and Backward Bifurcation Analysis of Japanese Encephalitis Model With Vector-Free Transmission in Reservoir Population, 2025; 0:1–17, https://doi.org/10.1002/mma.11044 .	Mathematical Methods in the Applied Sciences	0170-4214		2.1
2025	Padmaja Tripathi, Harish Chandra, Ram Keval , Optimal control of malaria with medicine and insecticide: A mathematical model, MATHEMATICS IN ENGINEERING, SCIENCE AND AEROSPACE , Scopus, page No- 817-837, publishing date-08/30/2025, Vol - 16(3), I&S Publishers, https://nonlinearstudies.com/index.php/mesa/article/view/3856 .				
2025	Padmaja Tripathi, Harish Chandra, Ram Keval , Vinod Baniya, 2025, ANALYSIS AND PREDICTION OF FUTURE MALARIA AND TYPHOID OUTBREAKS BASED ON TIME-VARYING CONTACT RATES: AN ARIMA APPROACH, Journal of Applied Nonlinear Dynamics, 15(4) (2026) 1025-1052 DOI:10.5890/JAND.2026.12.015, ISSN:2164-6473, ESCI, L & H Scientific.				

2025	Padmaja Tripathi, Harish Chandra, Ram Keval , Ananya Dwivedi, 2025, Study a mathematical approach for Malaria transmission model with two different classes of humans based on immunity in a periodic environment, <i>Facta Universitatis, Series: Mathematics and Informatics</i> , ESCI, IF - 0.3., https://doi.org/10.22190/FUMI240717010T , vol. 41, No 1 (2026), 111–142,
2026	Padmaja Tripathi, Harish Chandra, Ram Keval , Vinod Baniya, Exploring the Co-dynamics of Malaria and Typhoid: An In-Depth Analysis of a Mathematical Model and Cost-Effectiveness Optimal Control. <i>Differential Equations and Dynamical Systems</i> (2026). https://doi.org/10.1007/s12591-026-00767-z , Impact factor : 1.2(2025) , ISSN - 0971-3514 , ESCI, SPRINGER INDIA .
2026	Rajat Kaushik, Aji Thomas, Sudhanshu Aggarwal, Ram Keval , Stability Analysis on the One-dimensional ODE System Based on CPTA Model, <i>Journal of Advances in Mathematics and Computer Science</i> , Vol 41, issue 5, 258-269, 2026, ISSN: 2456-9968, Received: 07/03/2026, Published: 16/05/2026, DOI: https://doi.org/10.9734/jamcs/2026/v41i52150 .
2026	Kaushik, Rajat, Sachin Kumar, Manoj Kumar, and Ram Keval , 2026, “Mathematical Modeling of COVID-19 Disease Dynamics Incorporating Quarantine and Vaccination”. <i>Asian Research Journal of Mathematics</i> 22 (5):217-34. https://doi.org/10.9734/arjom/2026/v22i51098 ,
2026	Kaushik, Rajat, Aji Thomas, A. K. Garg, and Ram Keval , 2026, “Mathematical Modeling of Mentor–Mentee Relationship via Non-Linear Ordinary Differential Equations”, <i>Asian Research Journal of Mathematics</i> , 22 (6):120-37, https://doi.org/10.9734/arjom/2026/v22i61105 .
2026	Kaushik, Rajat, Tanu Rai, and Ram Keval . 2026. “Teachers’ Emotional and Cognitive Responses to Students’ Mathematical Errors in Middle School”. <i>Journal of Advances in Mathematics and Computer Science</i> 41 (5):213-24. https://doi.org/10.9734/jamcs/2026/v41i52147 .
2026	Kaushik R, Purwar K, Keval R , Journey Through Baudhayana’s Theorem: From Ancient Wisdom to Modern Application Vol 11, Issue 1&2 2026: Pg. No. 19-28. DOI- https://doi.org/10.24321/2455.7021.202602 , (ISSN: 2455-7021, <i>Journal of Advanced Research in Applied Mathematics and Statistics</i> .
2025	Kaushik R, Upadhyay K, Keval R , Effectiveness of Hopscotch Game as a Kinaesthetic Strategy for Teaching Ecological Food Chains at the Middle-Stage Level, <i>Vol 10, Issue 3&4</i> 2025: Pg. No. 10-20, DOI: https://doi.org/10.24321/2455.7021.202511 , Journal of Advanced Research in Applied Mathematics and Statistics (ISSN: 2455-7021) .
2020	Vinod Baniya Ram Keval , Mathematical Modeling and Stability Analysis of Japanese Encephalitis, <i>Advanced Science, Engineering and Medicine</i> , 12, 120–127 (2020), ISSN 2164 - 6627 (Print); ISSN 2164 - 6635 (Online), American Scientific Publishers.
2021	Nidhi Chaurasiya, Ananya Dwivedi, Ram Keval, “STABILITY ANALYSIS OF THE JAPANESE ENCEPHALITIS DISEASE MODEL USING THE VACCINE IMPACT IN HUMAN AS A CONTROL PARAMETER”, <i>Mathematical Sciences International Research Journal</i> , IMRF publications, Volume 10, Issue 1, ISSN 2278-8697, Apr 16-17, 2021 .

(d) Chapter/Paper Published in Edited Books

Publication		Title of the Book	Title of the	Name & Address of	Year	IS BN	DOI	Citati on
Natio	Internati							

nal	onal		Chapter	Publisher				Goog le/ web of scien ce
Natio nal	Internati onal	Advanced Science, Engineering and Medicine	Mathemati cal Modeling and Stability Analysis of Japanese Encephalit is	American Scientific Publishers	2020	21 64 - 66 27		
	Internati onal	<i>Mathematical Analysis and Computing</i>	Analysis of a Dengue Model with Climate Factors	Springer Proceedings in Mathematics & Statistics	2021	97 8- 98 1- 33- 46 45- 1	https:// doi.org/ 10.100 7/978- 981-33- 4646- 8_11	
	Internati onal	Mathematical Sciences International Research Journal	<i>STABILI TY ANALYSI S OF THE JAPANESE ENCEPH ALITIS DISEASE MODEL USING THE VACCIN E IMPACT IN HUMAN AS A CONTRO L PARAME TER</i>	PROCEEDIN GS OF THE INTERNATIO NAL CONFERENC E ON ADVANCES IN MATHEMATI CS & COMPUTER SCIENCE	2021	22 78- 86 97		
	Internati onal	Mathematical Modelling and Computational	Applicatio n of Optimal Controls on Dengue	Springer Proceedings in Mathematics & Statistics	2022	97 8- 98 1- 16	https:// doi.org/ 10.100 7/978- 981-16-	

		Intelligence Techniques	Dynamics-A Mathematical Study			- 60 17 -7	6018-4_1	
	International	<i>Mathematical Analysis and Computing</i>	Sensitivity and Stability Analysis in the Transmission of Japanese Encephalitis with Logistic Growing Mosquito Population	springer	2021	97 8- 98 1- 33 4- 64 5-1	https://doi.org/10.1007/978-981-33-4646-8_6 , springer	

(e) Invited as Resource Lectures Person/Examiner/Expert

Resource person	Detail of Event	Title of Lecture	Date	Institution
<u>Dr. Ram Keval</u>	Workshop on Scientific Computing in Mathematical Sciences	<i>Introduction of Mathematica</i>	March 23-28, 2022	Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur
<u>Dr. Ram Keval</u>	one week FDP on “Modern Research Methods and Analytical Tools”	<i>Introduction of Mathematica and applications in Differential equations</i>	December 05-09, 2022	Department of Humanities and Management Sciences, Madan Mohan Malaviya University of Technology, Gorakhpur
<u>Dr. Ram Keval</u>	Short Term Training Program on Recent Advances in Applied Mathematics	Hands on MATLAB	December 14 - 18, 2022	MSCD, Madan Mohan Malaviya University of Technology, Gorakhpur

(f) Seminars/Conferences/Workshops Organized

1. Organized a TEQIP sponsored **National Conference on Recent Advances in Mathematics and Scientific Computing (RAMSC-2019)** during April 05th -06th, 2019, Organized by A. S. D., MMMUT, Gorakhpur.
2. *Worked as a coordinator in One week Faculty Development Programme On Mathematical Tools and Recent Advances in Mathematics (MTAM-2020) September 21-25, 2020 organized by M.S.C.D., MMMUT, Gorakhpur .*

3. *Worked as a coordinator in One -week Faculty Development Programme on Mathematical Tools and Recent Advances in Applied Mathematics (MTRAM-2021) during August 16-20, 2021, Sponsored by AICTE Training and Learning (ATAL) Academy.*

(g) Projects (With Title, Year, Grants, Funding Agency and Collaborations)

Year	Name of Project	Funding Agency	Amount	Duration	
				From	Till

(h) Administrative Positions/Assignments Held

Post	Organization	Duration	
		From	To
Coordinator of feedback	MMMUT, Gorakhpur	2021	June, 2023
NSS Programme officer	MMMUT, Gorakhpur	2017	June, 2023
Hostel warden	MMMUT, Gorakhpur	2022	June, 2023
In-charge of Day Scholar Club	MMMUT, Gorakhpur	2021	June, 2023
Incharge of PG convener	MMMUT, Gorakhpur	2020	June, 2023
In-charge of APR DPR etc. of Department	MMMUT, Gorakhpur	2020	June, 2023

Seminar/Conference Presentations

- (1) **Ram Keval**, Sandip Banerjee, Sunita Gakkhar, “Effect of Proliferation terms in the dynamics of Hepatitis C Virus”, Page: 727-735, Volume-1, in the International conference on “**Mathematical Modeling and Applied Soft Computing (MMASC 2012)**” which has held in July 11-13, 2012, organized by Department of Mathematics, Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India, ISSN: 978-81-923752-1-2.
- (2) **Ram Keval**, “Dynamics of Hepatitis C Virus with saturation incidence rate”, Page: 39-44, in the conference “**2nd Annual International Conference on Computational Mathematics, Computational Geometry & Statistics (CMCGS 2013)**” which has held in February 4-5, 2013, organized and published by Global Science and Technology Forum (GSTF), Singapore, ISSN: 2251-1911.
- (3) **Ram Keval**, Sandip Banerjee, Sunita Gakkhar, “Dynamics of Hepatitis C virus (HCV) infection with Gompertzian Proliferation”, Procedia Engineering, 38, 2012, 2453-2462, ISSN: 1877-7058, UGC Approved Journal, Elsevier., International conference on Modeling Optimization and Computing, 10-11 April, 2012, organized by Noorul Islam University, Kumaracoil-629180, Tamil Nadu, India.
- (4) Presented a paper entitled “**Proliferate Hepatitis C virus infection model with CTL and Antibody responses**” in TEQIP –III Sponsored Nation Conference on Recent Advances in

pure and Applied Mathematics (RAPAM-2018) during April, 12-13, 2018, Organized by Department of Applied science, Madan Mohan Malaviya University of Technology, Gorakhpur, India.

(5) Presented a paper entitled “**MATHEMATICAL ANALYSIS OF A DENGUE MODEL WITH VARIOUS CONTROLS**” in the national conference Emerging Trends in Mathematical Sciences for Industry and Environment: Use of Technical Hindi Terminology held on **27/01/2020** to **29/01/2020** at Shaheed Bhagat Singh College, University of Delhi.

(6) P. Tripathi, H. Chandra and **Ram Keval**, "Network Malaria Model on Account of Wide Communication," *2024 International Conference on IoT, Communication and Automation Technology (ICICAT)*, Gorakhpur, India, 2024, 1507-1511, doi: 10.1109/ICICAT62666.2024.10923044.

(7) P. Tripathi, H. Chandra, **R. Keval**, A. Kesarvani and K. Singh, "IoT based malaria website model using Digital Binary Code: A Mathematical Study," *2024 International Conference on IoT, Communication and Automation Technology (ICICAT)*, Gorakhpur, India, 2024, pp. 1671-1676, doi: 10.1109/ICICAT62666.2024.10923427.

(j) Memberships of Academic/Professional Bodies

(1) Dr. Ram Keval membership of Indian Mathematical Society Life Since 2020

(k) Participation in Community Service / Exchange Programme / Consulting Activity

(l) International Academic Exposure

(m) Any Other Details

Signature of Faculty Member