

Curriculum Vitae
Ranjit Kumar Upadhyay
January 5, 2025



Name : **Ranjit Kumar Upadhyay**

Date of Birth : 01-01-1967

Sex : Male

Nationality : Indian

Present Position : Professor (HAG)

Mailing Address

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Indian Institute of Technology
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Home page https://www.iitism.ac.in/index.php/Departments/faculties_apmat

<https://scholar.google.co.in/citations?user=MxwU4n0AAAAJ&hl=en>

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ACADEMIC BACKGROUND

- Ph.D. in Mathematics (2000), Indian Institute of Technology, Delhi
- M.Sc. in Mathematics (1992), Indian Institute of Technology, Kanpur
- B.Sc. Mathematics Honors (1990), Bhagalpur University

DETAILS OF EMPLOYMENT: [TEACHING EXPERIENCE: 27 YEARS]

- **25.10.2021 to 24.10.2024: HOD**, Mathematics & Computing, Indian Institute of Technology (ISM), Dhanbad
- **24.03.2021 to Present: Professor (HAG)**, Indian Institute of Technology (ISM), Dhanbad (Academic Pay Level-15)
- **31 March 2010 to 23.03. 2021: Professor**, Indian Institute of Technology (ISM), Dhanbad (AGP: 10500).
- **06 May 2009 – 30 March 2010: Associate Professor**, Indian School of Mines, Dhanbad (AGP: 9500).
- **31 March 2003 – 05 May 2009: Assistant Professor**, Indian School of Mines, Dhanbad.
- **31 May 2000 --30 March 2003: Senior Lecturer**, Indian School of Mines, Dhanbad.
- **25 July 1997 -- 27 May 2000: Lecturer**, SBS College of Engg. & Technology, Ferozepur, Punjab.

DETAILS OF EMPLOYMENT: [ADMINISTRATIVE EXPERIENCE]

Sl. No.	Name of the Position hold	Duration		Years of Experience
		From	To	
1.	Hostel Warden, Diamond	18.9.2007	31.03.2011	> 3Yrs.
2.	Member of Executive Board and General Council	01. 09.2008	30.8.2009	1 Yr.
3.	Member of M. Sc/M. Sc Tech Admission Committee	04.09.2009	03.09.2011	2 Yrs.
4.	Member of Institute Time Table committee	01.04.2011	31.12.2013	> 2 Yrs.
5.	Member of ACP/MACP	01.04.2014	31.03.2020	6 Yrs.
6.	Chairman, M.Sc/M.Sc Tech EE committee	12.11.2014	11.11.2017	3 Yrs.
7.	External Member of DFSC, Deptt. of Management Studies	10.07.2018	15.10.2021	> 3 Yrs.
8.	Chairman, GATE-JAM 2019-2020	05.09.2019	04. 09.2020	1Yr.
9.	Chairman, PG Admission 2020-2021	05.09.2020	04.09.2021	1Yr.
9.	Member of DFSC, Deptt. of M & C	26.07.2019	25.07.2021	2 Yr.
10.	Head, Department of Mathematics & Computing	25.10.2021	24.10.2024	3 Yr.

OTHER POSITIONS:

- Member of SAARC Countries Committee for 3Yrs M.Sc./M.Sc. Tech courses in AGP and AGL admission
- Member of Academic Council and Senate, Indian school of Mines , Dhanbad
- Senate nominee for the selection of HAG Professor of IEST Shibpur.
- Member of the different selection committee for faculty selection in different NITs, IEST, VIT, Ramakrishna Mission Vivekananda Educational and Research Institute Belur and other Universities
- Chairman of different inquiry committee
- Faculty -in -Charge for Recruitment of faculty in IIT(ISM) Dhanbad
- Faculty -in-Charge of JRF, Department of Mathematics & Computing

SPECIAL AWARDS/HONOURS RECEIVED:

Year	Name of Award/Honors	Name of Organization
10.10.2023	Fellow of the National Academy of Sciences, India [FNASc]	The National Academy of Sciences, Prayagraj, India
27.03.2023	Fellow of Institute of Mathematics and its Applications [FIMA] [Membership Number P0045747]	Institute of Mathematics and its Applications Essex SS1 1EF, UK
	Editor-in-Chief, Journal of Innovation Science & Sustainable Technologies	
2025	Subject Editor for National Academy Science Letters	The National Academy of Sciences, India
09.09.2022	Member of the expert committee for MATRICS on Mathematical Sciences [one Year]	SERB, DST, Govt. of India
July 2021	Co-opted member of Programme Advisory Committee on Mathematical Sciences [3 Yrs.]	SERB, DST, Govt. of India
May-June 2010	Visiting Research Fellow, Indo-Hungarian Educational exchange programme.	Eötvös Lorand University, Budapest, Hungary
October-December 2015	Visiting Fellow	Isaac Newton Institute for Mathematical Sciences, Cambridge University
June- July 2016	Visiting Scientist	University of Le Havre Normandie, France
December 2018	Visiting Scientist	University of Le Havre Normandie, France
19-27 August 2010	Invited talk in International Congress of Mathematician	University of Hyderabad
18-23 June 2012	Invited talk in <i>Computability in Europe</i> 2012	Cambridge University
3-7 February 2014	Invited talk in 101 st Indian Science Congress	Jammu University
2015-Cont.	Associate Editor, Food Webs	Elsevier, USA

2022-Cont.	Associate Editor, Frontiers in Computational Neuroscience	Switzerland
2017-Cont.	Associate Editor, Advances in Difference Equations	Springer, USA
2014-Cont.	Nominated as member of Board Commission for International Society of computational Ecology	IAEES, Hong Kong
2017-Cont. 2014-Cont. 2015-Cont. 2017-Cont. 2020-Cont. 2015-Cont. 2015- Cont. 2025-	Editorial Board member of Food Webs Differential Equations and Dynamical System Journal of Nonlinear Systems and Applications Computational Ecology and Software Iraqi Journal of Science Invertis Journal of Science & Technology International Journal of Biomathematics and Systems Biology Babylonian Journal of Mathematics	Elsevier, USA Springer, USA Watam.org, France IAEES, Hong Kong University of Baghdad Invertis University Bio-mathematical Society of India Mesopotamian Academy Press

MEMBERSHIP OF PROFESSIONAL BODIES:

S. No.	Name of the Body	Status of Membership: Life / Annual
1.	Association Computability in Europe	Life Member
2.	International Society of Difference Equations	Life Member
2.	Indian Mathematical Society	Life Member
3.	International Academy of Physical Sciences	Life Member
4.	Bio-mathematical Society of India	Life Member
5.	International Society of computational Ecology, Hong King.	Life Member
6.	American Mathematical Society	Annual Member

VISITING POSITIONS:

- **Visiting Fellow** in EOBUE, Jawaharlal Nehru Center for Advances Scientific Research, Jakkur, and Bangalore (Visited to Professor Amitabh Joshi) (Summer 2002).
- **Visiting Scientist** in Biomathematics Group, Indian Statistical Institute Kolkata (Visited Professor Joydev Chattopadhyay) (Summer 2004).
- **Visiting Research Fellow** under Indo-Hungarian Educational exchange programme in **Eötvös Loránd University**, Faculty of Science, Institute of Biology, Department of Plant Taxonomy and Ecology (Visited to Professor Scheuring Istvan). (Summer 2010)
- **Visiting Fellow** to **Isaac Newton Institute for Mathematical Sciences, Cambridge** to participate in the program “*Coupling Geometric PDEs with Physics for Cell*”

Morphology, Motility and Pattern Formation” 1st October 2015 to 15th December 2015.

- **Visiting Scientist** to University of Le Havre Normandie, France from June-July 2016 and December 2018.

RESEARCH [RESEARCH EXPERIENCE: 30 YEARS]:

CURRENT RESEARCH INTEREST:

Nonlinear Differential Equations (ODE, PDE, Delay, Cross-diffusive), Chaos Modeling, Mathematical Ecology, Nonlinear dynamics, Dynamical system Theory, Disease dynamics, Population dynamics, Reaction-Diffusion Modeling, Spatiotemporal pattern formations, Virus dynamics, Brain dynamics and Neural modeling.

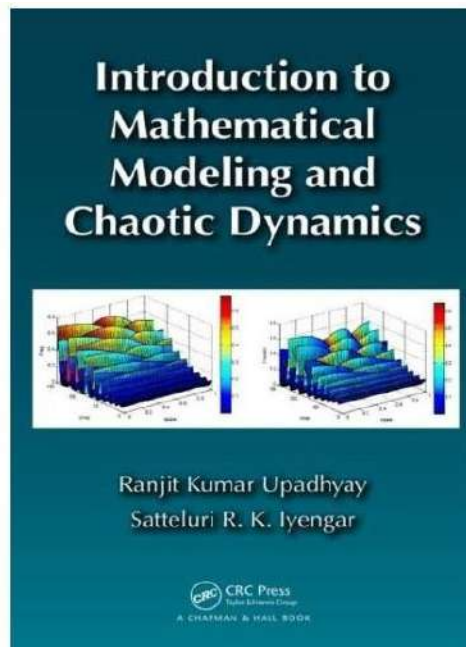
BOOKS PUBLISHED:

1. INTRODUCTION TO MATHEMATICAL MODELING AND CHAOTIC DYNAMICS

Authors: R. K. Upadhyay & S. R. K. Iyengar

Publisher: CRC Press Taylor & Francis Group

(Published: July 23, 2013 by Chapman and Hall/CRC press)



*Mathematical Association of America (MAA) Review Report for this book [Reviewed by Dhruba Adhikari, on 17/12/2014]

<http://www.maa.org/publications/maa-reviews/introduction-to-mathematical-modeling-and-chaotic-dynamics>

Dhruba Adhikari,

Faculty of mathematics,
Southern Polytechnic State University,
Marietta, Georgia.

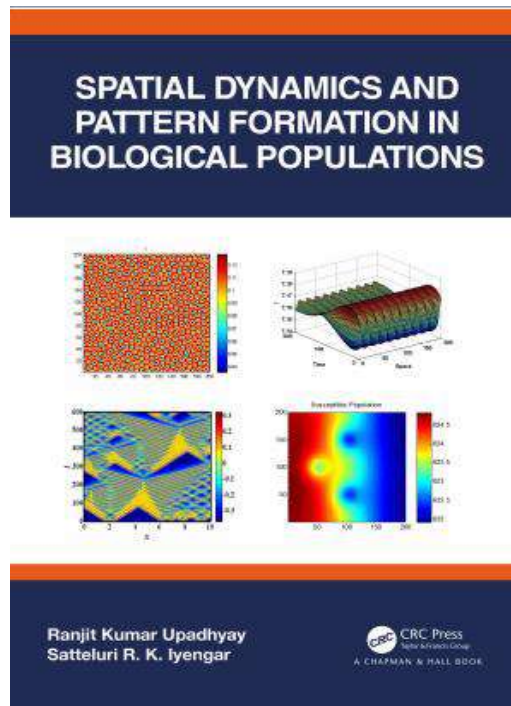
*A report about it was published in Hindustan Times paper and my interview was telecast on the Sahara Samay channel on September 22, 2013.

2. SPATIAL DYNAMICS & PATTERN FORMATION IN BIOLOGICAL POPULATIONS

Authors: R. K. Upadhyay & S. R. K. Iyengar

Publisher: CRC Press Taylor & Francis Group

(Published: February 15, 2021 by Chapman and Hall/CRC press)



INTERNATIONAL JOURNAL VOLUME EDITING:

(i) Guest Editor for the special issue on *Modeling brain function at the level of neurons and circuits via computational and data-driven approaches*

Name of the Journal: *Frontiers in Computational Neuroscience* (Impact Factor 3.387)

Published on August 15, 2022

Guest Editors: R. K. Upadhyay, D. Ghosh, M.A. Aziz-Alaoui, M. Uzuntarla

(ii) Guest Editor for the special issue on *Nonlinear Models in Biosignaling, Biosensor and Neural Systems – Modeling, Simulations and Applications*

Name of the Journal: *Differential Equations and Dynamical Systems* (Springer)

Published in October 2021.

Guest Editors: R. K. Upadhyay

(iii) Guest Editor for the special issue on *Nonlinear Phenomena in Biology and Medicine*

Name of the Journal: Computational and Mathematical methods in Medicine (2012)

(Thomson Reuters, *Impact Factor* 2.809)

Guest Editors: Vikas Rai, S.R. Nadar, T.R. Krishnamohan, R.K. Upadhyay

DETAILS OF INTELLECTUAL PROPERTY RIGHTS (COPYRIGHTS, PATENTS, ETC):

Sl. No.	Patent/ Copyright	Present Status (Submitted/Published/Granted)
1.	UNDERSTANDING CYBER THREATS AND ATTACKS Publisher: NOVA Science Publishers Editors: B.K. Mishra, J.R.C. Piqueira Chapter Title: Exploring the delayed and optimally controlled dynamics of malicious objects in computer network Authors: Sangeeta Kumari, R.K. Upadhyay [Book Chapter]	Published in September 2020
2.	ADVANCES IN INTELLIGENT SYSTEMS AND COMPUTING Publisher: Springer International Publishing AG 2018 Editors: J. Kacprzyk et al. Chapter Title: Dynamical Behaviors of Fuzzy SIR Epidemic Model. Authors: Renu Verma, S.P. Tiwari, R.K. Upadhyay [Book Chapter]	Published in September 2018
3.	DYNAMIC MODELS OF INFECTIOUS DISEASE: NON VECTOR BORNE DISEASES Publisher: Springer Science, New York 2013 Editors: V.S.H. Rao, R. Durvasula Chapter Title: Modeling the spread and outbreak dynamics of Avian Influenza (H5N1) Virus and its possible control Authors: V. Sree Hari Rao & R. K. Upadhyay [Book Chapter]	Published in 2013
4.	CURRENT ISSUES OF WATER MANAGEMENT Publisher: InTech, ISBN 978-953-307-413-9 Editor: Uli Uhlig Chapter Title: Wetlands for Water Quality Management- The Science and Technology. Authors: Vikas Rai, A. M. Sedeki, Rana D. Parshad, R. K. Upadhyay and S. Bhowmick [Book Chapter]	Published in 2011
5.	RECENT ADVANCES IN INFORMATION TECHNOLOGY Publisher: Springer Science, Berlin 2014. Editors: G.P. Biswas, S. Mukhopadhyay	Published in 2014

	Chapter Title: Modeling the complex dynamics of epidemic spread under Allee Effect Authors: Parimita Roy, R.K. Upadhyay [Chapter in Conference Proceeding]	
6.	RECENT ADVANCES IN MATHEMATICS AND ITS APPLICATIONS Publisher: Allied Publisher, New Delhi 2013. Editors: G.S. Seth, M.K. Singh, S.P. Tiwari Chapter Title: Dynamical Analysis of an Eco-Epidemiological model of Salton Sea: Deterministic Chaos and its Possible Control Authors: Parimita Roy, R.K. Upadhyay [Chapter in Conference Proceeding]	Published in 2013
7.	MATHEMATICAL MODELLING AND SCIENTIFIC COMPUTATION Publisher: Springer Science, Berlin, Heidelberg 2012 Editors: Balasubramaniam, P., Uthayakumar, R Chapter Title: Crisis-limited chaotic dynamics in an eco-epidemiological system of the Salton Sea. Authors: S.N. Raw, R.K. Upadhyay , N.K. Thakur CCIS 283, pp.201-209 [Chapter in Conference Proceeding]	Published in 2012
10.	MATHEMATICAL MODELLING AND SCIENTIFIC COMPUTATION Publisher: Springer Science, Berlin, Heidelberg 2012 Editors: Balasubramaniam, P., Uthayakumar, R Chapter Title: Instabilities and Patterns in Zooplankton-Phytoplankton dynamical system: Effect of spatial heterogeneity. Authors: N.K. Thakur, R. K. Upadhyay , S. N. Raw CCIS 283, pp.229-236. [Chapter in Conference Proceeding]	Published in 2012

RESEARCH PROJECT/CONSULTANCY UNDERTAKEN:

DETAILS OF SPONSERED (R& D) PROJECTS:

Sl. No.	Project Title	Amount in ₹ (Lakh)	Role (PI/ Co-PI)	No. of Co-PIs	Funding Agency	Duration	Status (Completed/ Ongoing)
1.	Design and Assessment of Complex Network Models and their Applications to halt Brain Disorders. [CRG/2023/000583]	35.98	PI	01	SERB, DST New Delhi	3 Yrs. [2024-2027]	Awarded/ Ongoing
2.	High Performance Cluster Supercomputing [SR/FST/MS II/2023/142]	223.00	Head	01	FIST Program-2023	5 Yrs.	Awarded/ Ongoing

					[TPN-90498]		
3.	Dynamic Modeling of Spatial Epidemic and Eco-Epidemiological Systems-a New Healthcare Initiative	6.60	PI	NIL	SERB, DST New Delhi	3 Yrs. [2018-2021]	Completed
4.	Mathematical Modeling of Dynamical Diseases in the Human Brain	18.20	PI	NIL	CSIR, New Delhi	3 Yrs. [2017-2020]	Completed
5.	Modeling the Spatiotemporal Complexity of Eco-Epidemiological System: A Dynamical System Approach [UGC (89)/2013-2014/337/AM]	3.5	PI	NIL	UGC, New Delhi	3 Yrs. [2013-2016]	Completed
6.	Modeling the Dynamic Nature of Ecological Complexity: A Mathematical and Stochastic Approach [UGC (32)/2008-09/220/AM]	7.26	PI	NIL	UGC, New Delhi	3 Yrs. [2008-2011]	Completed
7.	Search of Good Rotation Pattern- To Address the Estimation and Forecasting Problems. [UGC (19) 2007-08/193/AM]	5.5	Co-PI	one	UGC, New Delhi	3 Yrs. [2007-2010]	Completed
8.	Ultra High-Resolution Retinal Imaging of Living Eye through Adaptive Optics	41.47	Co-PI	Two	DST, New Delhi	3 Yrs. 2007-2010]	Completed

DETAILS OF CONSULTANCY PROJECTS

Sl. No.	Name of Consultancy	Amount in ₹ (Lakh)	Role (PI/Co-PI)	No. of Co-PIs	Funding Agency	Duration	Status (Completed/Ongoing)
1.	Preparation of Regional Environmental Management plan for Angul-Talcher Meramundali Area of Orissa Consultancy Project [No. 0267] http://ismenvis.nic.in/Content/FINANCIALLYEAR2010-11_3966.aspx	52.24	Co-PI	8	State Pollution Control Board, Orissa	One Yr. [2010-2011]	Completed

(A) Innovation

The Angul-Talcher Meramundali Area of Orissa is the most industrialized and degraded area with excessively high pollution load. This study was assigned by the CPCB, Orissa to assess the carrying

capacity and assimilative capacity of the existing environment and confirm whether any new industrial set-up can be permitted.

(B) New Knowledge

While carried out the assessment of carrying capacity and assimilative capacity of the existing environment several environmental matrices were studied in detailed, like, estimation of air pollution by using box model, Fugitive dust model, PAL (Point-area-line source) and predict the future increase of pollution load. Water pollution load was estimated in Brahmi and Mahanadi River by using the Streeter-Phelps model, Qual I & II model. quality and confirm whether any new industrial set-up can be permitted. The area has predominance of Fluoride pollution, and sources of F were measure in NALCO smelters and NTPC power plants. F pollution in crop and underground water were measured and predicted. The degradation of land fertility and biodiversity also monitored and predicted under different scenario, i.e., existing versus new development.

(C) Industrial application:

This type of carrying based assessment will be helpful to the policy makers (CPCB, SPCB and other regulatory bodies) to take a decision whether new industries will be allowed or not as well types of Industries. As carrying capacity is varied from place to place and also depends on the assimilative capacity of that area, this type of studies has immense application for the development of industries.

ASSOCIATED WITH OTHER R & D PROJECTS:

1. Worked as **Project Assistant** in project# DEFW/MATH/8626 entitled “***Dispersion of Air pollutant and its Control by Green Belt***”, Department of Mathematics, IIT Kanpur. (May 1992-June 1993). [Prof. J. B. Shukla, S.S. Bhatnagar Awardee]
2. Worked as **Senior Research Assistant in** the research project # RP-034/90 entitled “***Development of Dynamical Statistical Model for Local Weather Prediction over Northwest India for operational use in Indian Air Force***”, CAS, IIT Delhi. (July 1993- June 1994). [Prof. U.C. Mohanty, S.S. Bhatnagar Awardee]
3. **Fast track Young Scientist Award 2001-02** Project No. SR/FTP/MS-18/2001 from **DST, New Delhi** (Rs. 3.24 Lakhs) (Status: Completed). [During 24.09.2002-31.03. 2005]
Project Title: *Chaos, Synchrony & Persistence in Spatially Extended Ecological Systems.*
4. Minor Research Project from **Indian School of Mines, Dhanbad** (Rs. 40,000) (Status: Completed).
Project Title: *Functional Role of Chaos and its Implication in Ecosystem Stability.*

DISSERTATIONS/THESIS SUPERVISED:

1. M. Sc. (Mathematics & Computing) – **33** (Completed)
2. M. Tech. (Mathematics & Computing)-**10** (Completed)
3. M. Phil. – **09** (Completed)
4. Ph. D.– **15** (Completed) +**06** (Under progress) = **21**
5. Post-doctoral Fellow: **02** (completed) +**02** (Under progress)

Ph.D. (Applied Mathematics)					
1.	Dr. Nitu Kumari Associate Prof. in IIT Mandi	Modelling the dynamical complexity in diffusion driven ecological systems.	Ph.D. (Applied Mathematics)	2009	
2.	Dr. Nilesh Kumar Thakur Associate Prof. in NIT Raipur	Modeling the dynamic nature of Ecological complexity in spatial aquatic systems.	Ph.D. (Applied Mathematics)	2012	
3.	Dr. S.N. Raw Associate Prof. in NIT Raipur	Complex dynamics of Ecological systems: Models and Methods	Ph.D. (Applied Mathematics)	2012	
4.	Dr. Parimita Roy Assistant Prof in Thapar Institute of Engg. & Technology, Patiala.	Modeling the spatiotemporal complexity of Eco-epidemiological systems	Ph.D. (Applied Mathematics)	2016	
5.	Dr. Rashmi Agrawal Assistant Prof. in IIIT Dharwad, Karnataka.	Modeling ecological systems with mutual interference and time delay	Ph.D. (Applied Mathematics)	2017	
6.	Dr. Satish Kumar Tiwari Assistant Prof. in Centre for RGIPT, Sivasagar, Assam.	Modeling the spatiotemporal complexity of Wetland systems	Ph.D. (Applied Mathematics)	2017	
7.	Dr. Argha Mondal Assistant Prof. in Sidho- Kanho-Birsha University, Purulia 723104, West Bengal.	Dynamical studies of voltage-gated Neuron models under realistic situations: Nonlinear responses and Synchronization	Ph.D. (Applied Mathematics)	2018	
8.	Dr. Renu Assistant Prof. BN Mandal University Madhepura, Bihar	Fuzzy Dynamical Systems: Models & Methods	Ph.D. (Applied Mathematics)	2019	With Dr. S.P. Tiwari
9.	Dr. Jyotiska Datta Assistant Professor & Head, Central University of Orissa	Eco-Epidemiological systems with delay and Diffusion: A Modeling study	Ph.D. (Mathematics & Computing)	2020	
10.	Dr. Miss Sangeeta Kumari Assistant Professor, Dept. of Mathematics, School of Engineering, Coimbatore	Dynamical studies of malware propagation models in wireless sensor network: An epidemic approach	Ph.D. (Mathematics & Computing)	2021	

11.	Dr. Swati Mishra Assistant Professor, Department of Mathematics, VIT-AP University Near Vijayawada 522237, AP.	Modeling Ecological Systems with Diffusion and Time Delay	Ph.D. (Mathematics & Computing)	2021	
12.	Dr. Sarita Kumari Department of Mathematics, School of Sciences, SR University, Warangal, Telangana 506371	Modeling Ecological complexity of aquatic and Marine systems.	Ph.D. (Mathematics & Computing)	2022	
13.	Dr. Sanjeev Kumar Sharma Assistant Professor, Department of Mathematics, VIT-AP University Near Vijayawada 522237, AP.	Spiking and bursting phenomena in Neural models and Networks	Ph.D. (Mathematics & Computing)	2022	
14.	Dr. Arnab Mondal	Diffusion driven spatial patterns and Travelling waves in Neuron models	Ph.D. (Mathematics & Computing)	2022	
15.	Dr. Sattwika Acharya	Modeling the epidemic dynamics with delay and diffusion	Ph.D. (Mathematics & Computing)	2023	
16.	Mr. D. Pradhan	Alzheimer's disease: Neuronal modeling and Brain dynamics	Ph.D. (Mathematics & Computing)	Under Progress	
17.	Miss Namrata Mani Tripathi PMRF	Modeling Epidemic Systems: Stability and Bifurcation Analysis	Ph.D. (Mathematics & Computing)	Under Progress	
18.	Mr. Amit Kumar Barman	Mathematical Modeling in Cancer Research using High-throughput Data	Ph.D. (Mathematics & Computing)	Under Progress	
19.	Miss Prasad Anjali Ramashankar Chandadevi PMRF	Spatiotemporal disease dynamics: Fuzzy modeling approach	Ph.D. (Mathematics & Computing)	Under Progress	
20.	Mr. Debadri Bera INSPIRE FELLOW	Mathematical Modeling in Alzheimer disease: Data	Ph.D. (Mathematics & Computing)	Under Progress	

		driven Dynamics and simulation	Computing)		
21.	Mr. Dhiraj Kumar Srivastava	Modeling the infectious disease and health economics through the lens of human behavior.	Ph.D. (Mathematics & Computing)	Under Progress	
Post- Doctoral Fellow					
1.	Dr. Rachana Bhatia		NBHM Post-Doctoral Fellow (Left)	Ph.D. from IIT Roorkee	With Prof. R.C. Mittal
2.	Dr. Ashok Kumar Pal	CSIR Project No. 25(0277)/17/EMR-II	CSIR RA	Ph.D. from IIT(ISM) Dhanbad	Dr. B.S. Kuswah
3.	Dr. Bichitra Kumar Lenka	DR/IPDF/M&C/30/2023 Joined 03.07.2023	Institute Post-Doctoral Fellow	Ph.D. from IISER, Kolkata	Prof. Soumitro Banerjee
4.	Dr. Dipesh Barman	DR/IPDF/M&C/37/2023 Joined 11.10.2023	Institute Post-Doctoral Fellow	Ph.D. from IEST, Shibpur	Prof. S. Alam
5.	Dr. Sevak Ram Sahu	SERB(CRG)/2024-2025/1112/MnC	Research-Associate I	Ph.D. from NIT, Raipur	Dr. S.N. Raw

DETAILS OF OUTREACH PROGRAMS (PDPS/MDPS/ CONFERENCE/ WORKSHOP ORGANISED:

Sl. No.	Title	External Funding in ₹ (Lakh)	Funding Agency	Role (CI/ Co-CI)	No. of Co-CI	Duration	Status
1.	ACMB-JSMB 2025: International Conference on Mathematical Biology		Kyoto, Japan	Member of Delegates & Symposium organizer		July 7, 11, 2025	International
2.	Modeling, Analysis & Simulation (MAS-2019): Comprising the Realms of AI, ML and IoT	4.00	SERB, DST New Delhi & TEQIP III	Chairman		June 28-30, 2024	National
3.	8th CIJK Conference on		Pusan	Member of		June	International

	Mathematical and Theoretical Biology, Sono Belle Jeju, Jeju Island, Republic of Korea		National University, Republic of Korea	Delegates & Symposium organizer		27, July 1, 2023.	onal
4.	National Conference on Harmonic Analysis & Applications	2.50	SERB, DST New Delhi	HOD		Dec 2-4, 2022	National
5.	Celebrated National Statistics Day	0.50	DMC, IIT (ISM) Dhanbad	HOD		June 29, 2022, 2023	National
6.	Celebrated National Mathematics Day	0.50	DMC, IIT (ISM) Dhanbad	HOD		Dec. 22, 2021, 2022, 2023	National
7.	Modeling, Analysis & Simulation (MAS-2019): Exploring the Nonlinear world of Mathematics	1.25	SERB, DST New Delhi & TEQIP III	Convener		Dec 16-18, 2019	National
8.	Chaos and Complexity in Nonlinear Phenomena	12.50	NBHM, DST, DRDO, MOES, COAL INDIA	Symposium Organizer in 80 th Indian Mathematical Society		Dec 27-30, 2014	National

INVITED TALKS & PRESENTATIONS:

1. Attended Summer School on Advanced Real Analysis and Applications to PDE, IISC-TIFR Mathematics Programme at IISc Bangalore during May 18- June 8, 1992.
2. Talk in International conference on Mathematical Modeling of Nonlinear Systems, Deptt. of mathematics, IIT Kharagpur (December 09-11, 1999).
3. Invited Talk in Joint 9th National Conference of the Vigyan Parishad of India on Applied and Industrial Mathematics & 5th Annual Conference of Indian Society of Information Theory and Applications at NSIT, Dwarika New Delhi during 22-24, 2002.
4. **Invited talk** in an “*International conference on Nonlinear phenomena*” organized by Nonlinear studies group, Department of Mathematics, *IISC Bangalore* (January 5-10, 2004).
5. **Invited talk** in ELTE Institute of Theoretical Physics, Seminar in Statistical Physics, in Eötvös University, Budapest, Hungary (June 2, 2010) visited under Indo-Hungarian Educational exchange programme.
6. **Invited talk in International Congress of Mathematician** in Hyderabad during 19-27 August 2010.

7. **Invited talk** in Cambridge University in *Computability in Europe* 2012.
8. **Invited talk** in 101st Indian Science Congress, Jammu University (3-7 February 2014)
9. **Invited talk** in BITS Pilani, Lucknow University, Punjab Technical University & Jadavpur University.
10. **Invited talk** at Isaac Newton Institute of Mathematical Sciences, University of Cambridge, UK. (October 6, 2015)
11. **Invited talk** at Department of Applied Mathematics in University of Leicester, UK. (November, 26, 2015)
12. **Invited talk** at Applied Mathematics Lab, University of Le Havre Normandie, France (24 June 2016)
13. **Invited talk** at Applied Mathematics Lab, University of Le Havre Normandie, France (19 December 2018)
14. **Invited talk** in MS03-EVOP Minisymposium in SMB 2021, University of California, Riverside USA. (14.6.2021).
15. **Invited talk** in **NODY Conference 2021**
16. **Invited talk** in Virtual International Workshop in NIT Uttarakhand. (11Feb. 2021) & NIT Agartala (14.10.2020), JNU (19.12.2020)
17. **Invited talk** in NIT Jamshedpur (22 Dec. 2020). Also, Guest in Valedictory function.
18. **Invited Lectures in a workshop on ATMW PDE and Mechanics**, Jaypee University of Information Technology, Solan during June 3-15, 2013 organized jointly by Bombay and TIFR Mumbai.
19. Attended “Advanced Workshop on Dynamical Models in Ecological, Epidemiological Sciences and Engineering - Theory, Computations and Real-World Applications” under the auspices of National Program on Differential Equations: Theory, Computations, and Applications (NPDE-TCA), March 14-19, 2016 at Stanley college of Engineering and Technology for Women, Hyderabad.
20. **Participated in Global Innovation Initiative: UK-US-India** joint research proposal submitted by University of Sussex, UK.
21. **Chaired Technical sessions & Judges of many Award committees** in many International and National Conferences.
22. **Fast track Young Scientists Research Award 2001-02**, *Department of Science & Technology Delhi, Government of India*.
23. **Reviewer for the many reputed International journals** like Journal of Mathematical Biology, Mathematical Biosciences, American Naturalist, International Journal of Bifurcation and Chaos, Physica A, Physica D, Journal of Theoretical Biology, Nonlinear Analysis: Real world Applications, Nonlinear Analysis: Modeling and Control, Applied Mathematical Modelling, Nonlinear Dynamics, Applied Mathematics and Computations, Journal of Biological Dynamics, Epidemiology, Chaos Solitons & Fractals, Nonlinear Dynamics.
24. My research report on “**Modeling the Spread of Bird flu and predicting outbreak diversity**” was published in Hindustan Times, Ranchi Edition on 19 January 2008 with the title “*Prediction made easier: ISM teacher*” and my interview was telecast on the local T.V Channel in January 2008.
25. **CITATIONS:** Google Scholar Citation

Citation indices	All	Since 2020
Citations	4465	2678
h-index	36	26
i10-index	128	103

COMPLETE LIST OF PUBLICATIONS:

International Journals: 210

National Journal (Referred): 05

Conference and Proceedings: 15

PAPERS PUBLISHED IN REFERRED INTERNATIONAL JOURNALS: 180



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