

## CURRICULUM VITAE



### **DR. RASHMI AGRAWAL**

Assistant Professor,  
Mathematics, Science and Humanities,  
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### **CAREER OBJECTIVE:**

To get a professional environment that promotes professional growth and continual upgrading of knowledge with strong opportunity for advancement.

### **EDUCATIONAL PROFILE:**

- 2012-2017 Ph.D. (Mathematical Ecology)**  
Department of Applied Mathematics, IIT (ISM), Dhanbad  
Title Modeling Ecological Systems with Mutual Interference and Time Delay  
Supervisor Prof. R. K. Upadhyay
- 2009-2011 Masters of Science (Mathematics and Computing)**  
Indian School of Mines, Dhanbad  
With 8.19/10 g. p. a.
- 2006-2009 Bachelor of Science (Maths. Honrs.)**  
Sri Sri Laxmi Narayan Trust Mahila Mahavidyalaya, Dhanbad  
Vinoba Bhave University, Hazaribag  
With 77.12%
- 2004-2006 Intermediate, C. B. S. E. Board**  
Jawahar Navodaya Vidyalaya, Hansdiha,  
Dumka, Jharkhand.  
With 66.4%

**2003-2004 Matric, C. B. S. E. Board**  
Jawahar Navodaya Vidyalaya, Hansdiha  
Dumka, Jharkhand.  
With 85.6%

### **EMPLOYMENT DETAILS:**

- Working as assistant Professor at IIIT Dharwad from July 18<sup>th</sup> , 2019 to till date.
- Worked as Adhoc Faculty at NIT Andhra Pradesh from August 2<sup>nd</sup>, 2018 to July 17<sup>th</sup> , 2019.
- Worked as Assistant Professor at SREC, Warangal, Telangana from May 26<sup>th</sup>, 2017 to July 30<sup>th</sup>, 2018.

### **ACHIEVEMENTS:**

- **GATE** qualified in 2012 with 91 percentile.
- Secured 2nd position in B.Sc. from S.S.L.N.T.M.M., Dhanbad.
- Got a Merit Certificate for getting 100 marks in Mathematics in Matric.

### **COMPUTER SKILLS**

Operating System	Windows, DOS, Linux
Languages	C, C++
Packages	Power Point, Matlab, Mathematica

Knowledge of Data Structures, Data Base Management System, Computer Organization, Digital circuit, Networking, Algorithm, Algorithm Design and Analysis.

### **KEY SKILLS**

- Programming.
- Able to take decision independently.
- Hard working.

## MEMBERSHIP IN SCIENTIFIC ORGANIZATIONS

- 2016 Student member of AMS
- 2016 Student member of SIAM
- 2016 Student member of BMSI in Jadavpur University, Kolkata
- 2016 Life member of Indian Science Congress
- 2014 Life member of Indian Mathematical Society
- 2014 Life member of Society of Applied Mathematics in ISM Dhanbad

## ACADEMIC PROJECTS

- **“Fundamental Problems of Cooperating Processes”**, Dissertation submitted as a part of 4<sup>th</sup> semester M. Sc. under the guidance of Dr. M. K. Singh, Associate Prof., Dept. of Applied Mathematics, ISM, Dhanbad.
- **“Analysis of Artificial Neural Networks and Algorithm based programming”** under the guidance of Dr. V. K. Kalyani, Scientist, CIMFR, Dhanbad (2 months).

## RESEARCH PUBLICATION

- Zizhen Zhang, Ranjit Kumar Upadhyay, **Rashmi Agrawal**, Jyotiska Datta, **“The Gestation Delay: A Factor Causing Complex Dynamics in Gause-Type Competition Models”** Published in **Complexity**, 2018 (2018) 1589310, (SCI index, Impact Factor 1.829).
- **R. Agrawal**, D. Jana, R. K. Upadhyay, V. Sree Hari Rao, **“Dynamic relationship between mutual interference and gestation delay of a hybrid tritrophic food chain model”** Published in **Australian and New Zealand Industrial and Applied Mathematics Journal (ANZIAM)**, 59 (2018) 370-401 (SCI index, Impact Factor 0.566).
- **Rashmi Agrawal**, Debaldev Jana, Ranjit Kumar Upadhyay, Sree Hari Rao Vadrevu, **“Complex dynamics of sexually reproductive generalist predator and gestation delay in a food chain model: Double Hopf-bifurcation to**

- Chaos**” Published in **Journal of Applied Mathematics and Computing**, 55 (2017) 513 - 547 (SCOPUS index).
- R. D. Prasad, S. Bhowmick, E. Quansah, **R. Agrawal**, R. K. Upadhyay, **“Finite time blow-up in a population model with competitive interference and time delay”** Published in **International Journal of Nonlinear Science and Numerical Simulation**, 18 (2017) 435 - 450 (SCI index, Impact Factor 0.890)
  - Ranjit Kumar Upadhyay, **Rashmi Agrawal**, **“Dynamics and responses of a predator-prey system with competitive interference and time delay”** Published in **Nonlinear Dynamics**, 83 (2016) 821-837 (SCI index, Impact Factor 3).
  - Debaldev Jana, **Rashmi Agrawal**, Ranjit Kumar Upadhyay, **“Ecological dynamics of Age Selective Harvesting of Fish Population: Maximum Sustainable Yield and its Control Strategy”** Published in **Chaos, Solitons & Fractals**, 93 (2016) 111-122 (SCI index, Impact Factor **1.611**).
  - Debaldev Jana, **Rashmi Agrawal**, Ranjit Kumar Upadhyay, **“Dynamics of generalist predator in a stochastic environment: Effect of delayed growth and prey refuge”** Published in **Applied Mathematics and Computation**, 268 (2015) 1072-1094 (SCI index, Impact Factor **1.345**).
  - Ranjit Kumar Upadhyay, **Rashmi Agrawal**, **“Modeling the effect of mutual interference in a delay-induced predator-prey system”** Published in **Journal of Applied Mathematics and Computing**, 49 (2015) 13-39 (SCOPUS index).
  - Debaldev Jana, **Rashmi Agrawal**, Ranjit Kumar Upadhyay, **“Top-predator interference and gestation delay as determinants of the dynamics of a realistic model food chain”** Published in **Journal Chaos Solitons and Fractals**, 69 (2014) 50-63 (SCI index, Impact Factor **1.611**).
  - D. Jana, N. Bairagi, **R. Agrawal**, R.K. Upadhyay, **“Modeling the Effect of Gestation Delay of Predator on the Stability of Bifurcating Periodic Solutions in Wetland Ecosystem”** Published in **The Journal of Ecology**, Photon 107 (2013) 175-189.

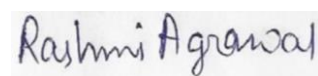
## WORKSHOP/ CONFERENCE

- Participated in the conference “**Recent Advances in Mathematics and its Application RAMA-2013**” being organized during February 14-16, 2013 at ISM, Dhanbad.
- Participated in the advanced level workshop “**Nonlinear Differential Equations: Dynamics of Complex Systems**” during Sept. 23-28, 2013 at University of Calcutta.
- Poster presented paper entitled “**Top-predator interference and gestation delay as determinants of the dynamics of a realistic model food chain**” in the International Conference on Environmental Biology and Ecological Modeling (ICEBEM-2014) during Feb. 24-26, 2014 at Visva-Bharti, Santiniketan.
- Presented paper entitled “**Modeling the effect of mutual interference in a delay-induced predator-prey system**” in the International Conference on Advances in Dynamical Systems (ICADS-2014) during March 10-13, 2014 at Central University of Rajasthan, Kishangarh, Rajasthan.
- Participated in the conference “**Indian Mathematical Society IMS-2014**” being organized during Dec 27-30, 2014 at ISM, Dhanbad.
- Presented paper entitled “**Global dynamic behavior of a predator-prey system with competitive interference and time delay**” in the conference National Seminar on Advances in Applied Mathematics & Mechanics (NSAAMM-2015) during March 12-13, 2015 at SGC Nadaun, Hamirpur, H. P.
- Presented paper entitled “**The gestation delay a factor causing complex dynamics in Gause type competition models**” in the International Conference on Mathematical Modeling & Simulation (ICMMS-2016) during August 29-31, 2016 at Institute of Science, BHU, Varanasi.

## DECLARATION

I do here by declare that the above furnished details are true and correct to the best of my knowledge and belief.

Place: Hubli



(Rashmi Agrawal)