

## **CURRICULUM VITAE**

### **PERSONAL INFORMATION**



*Name:* **Dr. Pooja Gupta, Ph.D.**

[https://scholar.google.com/citations?hl=en&user=aoy2Ss0AAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=aoy2Ss0AAAAJ&view_op=list_works&sortby=pubdate)

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*Nationality:* Indian

*Date of birth:* 12<sup>th</sup> July 1994

*Permanent address:* P.O.: Katghar, Lalganj, Dist.: Azamgarh-276202, Uttar Pradesh, India

### **PROFESSIONAL OBJECTIVE**

To pursue a challenging career and be part of a progressive and well reputed organization that gives scope to enhance my knowledge, skills, and to reach the pinnacle in the research field with sheer determination, dedication and hard work. I particularly enjoy collaborating with scientists from different disciplines to develop new skills and solve new challenges.

### **RESEARCH INTEREST**

My research area is study of Non-linear wave propagation problems in different gaseous media, Conservation Laws for system of hyperbolic partial differential equations.

## LIST OF PUBLICATION\*

1. International Journal (SCI/SCIE Index): **09** (Average impact factor:**2.847**)
2. International/National Conference/Workshop: **09**

## ACADEMIC QUALIFICATION

### **Ph.D. in Mathematical Sciences** (2021),

Department of Mathematical Sciences, Indian Institute of Technology  
(Banaras Hindu University), Varanasi-221005, India

**Title of PhD thesis:** “Study of Non-Linear wave Propagation Problems  
in Gaseous Media”

**Supervisor:** Prof. L. P. Singh

**Course work:** Qualified (as suggested by Doctoral Scrutiny  
Committee)

CGPA: 9.15

### **Post-Graduation (M.Sc.)** in Mathematics (2013-2015),

Banaras Hindu University (BHU), Varanasi, India

CGPA: 7.68

### **Graduation (B.Sc.)** in Mathematics (2010-2013),

Banaras Hindu University, Varanasi, India

CGPA: 7.98

### **Other academic achievements**

- CSIR-UGC NET Qualified (Dec 2016)
- Inspire Scholar -Department of Science and Technology (2010-2015)
- DST-Inspire Fellowship , Government Of India Ministry Of Science and Technology (From March 2017 to March 2022)

### **Computational Skill**

Software's: Mathematica, Latex, C

### Teaching (during PhD)

- Linear Algebra
- Partial Differential Equations

### REFERENCES

1. Prof. L. P. Singh (Ph.D. Supervisor),  
Department of Mathematical Sciences, Indian Institute of  
Technology (Banaras Hindu University), Varanasi, India  
Email: [lpsingh.apm@iitbhu.ac.in](mailto:lpsingh.apm@iitbhu.ac.in)  
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2. Prof. A.K Singh,  
Department of Mathematics, Banaras Hindu University  
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Contact No.: +91-8299179378
3. Dr. V.K Singh  
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**\*Annexure 1**  
**PUBLICATION DETAILS**

**(A) List of Journal publication (SCI/SCIE)**

Publication Index						
Q1	Q2	Q3	Q4	Total publication (SCI/SCIE) only	Total citation (last 3 years)	Average impact factor
05	04	-	-	09 No. (06 As first/corresponding Author + 03 As Co-author)	42	2.847

S. N.	Name of authors	Title of paper	Name of international journal	Journal publisher	Volume /issues	Page no.	Year	IF	'Q' ranking
1	Gupta, P., Chaturvedi, R.K., Singh, L.P.	Solution of Riemann Problem of Conservation laws in van der Waals Gas.	Waves in Random and Complex Media	Taylor & Francis	32	1-19	2022	4.853	Q1
2	Gupta, P., Chaturvedi, R.K., Singh, L.P.	The propagation of weak shock waves in non-ideal gas flow with radiation.	The European Physical Journal Plus	Springer	135	1-15	2020	3.304	Q2
3	Gupta, P., Singh, L.P., Singh, R.	Riemann problem for non-ideal polytropic magnetogasdynamics flow.	International Journal of Non-Linear Mechanics	Elsevier	112	6-12	2019	2.985	Q1
4.	Gupta, P., Chaturvedi, R.K., Singh, L.P.	Interaction of waves in one-dimensional dusty gas flow.	Zeitschrift für Naturforschung A (ZNA)	De Gruyter	76	201-208	2021	1.426	Q1
5.	Gupta, P., Singh, L.P.	On the evolution of magnetic shock wave in the mixture of gas and small solid dust particles.	Chinese Journal of Physics	Elsevier	75	1-14	2022	3.237	Q2

6.	Gupta, P., Chaturvedi, R.K., Singh, L.P.	The generalized Riemann problem for the Chaplygin gas equation.	European Journal of Mechanics- B/Fluids	Elsevier	82	61-65	2020	2.183	Q2
7.	Chaturvedi, R.K., Gupta, P., Singh, L.P.	Evolution of weak shock wave in two-dimensional steady supersonic flow in dusty gas.	Acta Astronautica	Elsevier	160	552- 557	2019	2.413	Q1
8.	Chaturvedi, R.K., Gupta, P., Singh, L.P.	Solution of generalized Riemann problem for hyperbolic p-system with damping.	International Journal of Non-Linear Mechanics	Elsevier	117	1-4	2019	2.985	Q1
9.	Chaturvedi, R.K., Gupta, P.,Srivastav, S.K. Singh, L.P	Evolution of C1-wave and its collision with the blast wave in one-dimensional non-ideal gas dynamics.	Computational and Applied Mathematics	Springer	39	1-13	2020	2.239	Q2

**(B) List of (top 5) Conference, Seminar and Workshop: 9**

S. N.	Name of authors	Title of paper	Venue	Organization/ publisher	Type of conference	Type of presentation
1	Pooja Gupta*, R.K.Chaturvedi, L.P. Singh	<b>Conference</b> :Solution of Riemann problem for non-ideal magnetogasdynamics flow	Indian Institute of Technology Mandi, Himachal Pradesh, India.	International Conference on Differential Equations and Control Problems: Modeling, Analysis and Computations (ICDECP19), 17-19 June, 2019.	Offline	Oral
2	Pooja Gupta*, R.K.Chaturvedi, L.P. Singh	<b>Conference</b> : Solution of Riemann problem for non-ideal magnetogasdynamics flow	Indian Institute of Technology Bhubaneswar, Odisha, India.	An International Meet : The 64 <sup>th</sup> Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2019), 9-12 December 2019	Offline	Oral
3	Pooja Gupta*, R.K.Chaturvedi, L.P. Singh	<b>Conference</b> :The Riemann Problem of Conservation laws in van der Waal's Gasdynamic flow	Department of Mathematics , School of Technology, Pandit Deendayal Petroleum University (PDPU), Gandhinagar, India.	2 <sup>nd</sup> International Conference on Mathematical Modelling, Computational Intelligence Techniques and Renewable Energy	Online	Oral
4	Pooja Gupta* L.P. Singh	<b>Conference</b> :On the evolution of magnetic shock wave in the mixture of gas and small solid dust particles	School of Mathematics, Shri Mata Vaishno Devi University Katra, Jammu & Kashmir	Online International Conference on Mathematical Science and Computational Intelligence	Online	Oral
5		<b>Workshop</b> : National Centre for Mathematics – System of Conservation Laws: Theory and Numerics	TIFR-CAM, Bangaluru.			
6		<b>Workshop</b> : Exploring some applications of Mathematical Sciences	Department of Mathematics, Institute of Science, Banaras Hindu University			

7		GIAN Course: Wavelets and their application in signal and image processing	Department of Mathematical Sciences IIT BHU, Varanasi.			
8		GIAN Course: Isogeometric methods using B-splines and Nurbs)	Department of Mathematical Sciences IIT BHU, Varanasi.			
9		GIAN Course: Theory and computation of singularly perturbed differential equations	Department of Mathematical Sciences IIT BHU, Varanasi.			

**(C) Reviewed research papers: >4**