



# Curriculum Vitae

**Dr. Deepak Kumar Maurya**

Assistant Professor

Department of Mathematics



Prof. Rajendra Singh (Rajju Bhaiya) Institute of Physical Sciences for Study & Research

**Veer Bahadur Singh Purvanchal University, Jaunpur -222003 (U.P.), India**

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## Academic Details:

Exam. Passed	University / Board	Year of / Passing Appearing	Division/ Rank	Subject(s)
B. Sc.	Dr. R. M. L. Avadh University, Ayodhya	2014	1 <sup>st</sup>	<i>Physics, Chemistry, Mathematics</i>
N.S.S.	Dr. R. M. L. Avadh University, Ayodhya	2014	-----	-----
M.Sc.	University of Allahabad, Prayagraj	2016	1 <sup>st</sup>	<i>Mathematics</i>
NET-CSIR	CSIR Complex, Pusa, New Delhi	December 2015	AIR-96	<i>Mathematical Sciences</i>
		December 2016	AIR-99	
		June 2017	AIR-73	
GATE	IIT Roorkee	January 2017	AIR-291	<i>Mathematics</i>
JRF-CSIR	CSIR Complex, Pusa, New Delhi	December 2017	AIR-196	<i>Mathematical Sciences</i>
Ph.D.	University of Allahabad, Prayagraj	22 June 2021	Thesis Submitted	<b>Title:</b> 'A Study of Certain Viscous Fluid Flow Problems and Their Applications' <b>Supervisor:</b> Prof. (Dr.) Satya Deo
		22 February 2022	Thesis Awarded	

## Research/Teaching Interest:

**Research Interest:** Fluid Mechanics, Flow Through Porous Media, MHD Flow

**Teaching Interest:** Fluid Mechanics, Classical Mechanics, Mechanics, Differential Equations, Integral Equations, Numerical Analysis, Differential and Integral Calculus, Geometry, Operation Research

## Personal Profile Pages:

<http://www.vbspu.ac.in/en/page/faculty-rbi-dept-of-mathematics> (VBSPU Faculty)

<https://scholar.google.com/citations?user=XBbJlogAAAAJ&hl=en&oi=ao> (Google Scholar)

<https://www.researchgate.net/profile/Deepak-Maurya-5/research> (ResearchGate)

<https://orcid.org/0000-0003-2228-3606> (ORCID)

## Life Membership:

- Center for Professional Advancement Continuous Education (CPACE)
- International Multidisciplinary Research Foundation (IMRF)
- Mathematical Society-BHU
- Global Initiative of Academic Networks (GIAN)

## Awards:

- International Research Excellence Award-2022 in Fluid Mechanics
- National Academic Excellence Award-2022 in Fluid Mechanics
- Junior Research Fellow (JRF)
- Paper Presentation Award entitled “*Generalized Stream Function of the Brinkman Equation in the Cylindrical-Polar Co-ordinates*” in NCRTMA-2019.

## Experiences:

- Working presently as an Assistant Professor (since November 2019) in the Department of Mathematics, Prof. Rajendra Singh (Rajju Bhaiya) Physical Sciences for Study & Research, Veer Bahadur Singh Purvanchal University, Jaunpur-222003 (U.P.), India.
- Taught to the B.A./B.Sc. (Mathematics) students in Department of Mathematics, University of Allahabad, during academic sessions 2017-18, 2018-19 and 2019-20 as a research scholar.

## Submitted Projects:

- SERB-CRG Project 2023, File. No. **CRG/2023/004145/MS**
- SERB-TARE Project 2023, Ref. No. **352023000011**
- CST UP Project 2023, Project ID. **2083**

## Ph.D. Students (Ongoing):

- ✓ Km. Jyoti Yadav, **Ref. No. 1897/VBSPU/Academic/2023 (Modified), Dated: 16.03.2023 & Ref. No. 1810/VBSPU/Academic/2023, Dated: 03.03.2023**
- ✓ Vikas Kumar Sharma, **Ref. No. 1810/VBSPU/Academic/2023, Dated: 03.03.2023**

## Project Guided for DST-Inspire Summer Research Internship:

- ✓ Anand Yadav (IVR No. 202000018600)

## Students Guided During M.A./M.Sc. Dissertation:

- ❖ Abhishek Pandey, Enrol. No. PU16/263706
- ❖ Diksha Sharma, Enrol. No. PU16/352776
- ❖ Shivani Srivastava, Enrol. No. PU13/578512
- ❖ Vibha Maurya, Enrol. No. PU16/354068
- ❖ Anant Chaudhary, Enrol. No. PU17/141897
- ❖ Fizza Akhtar, Enrol. No. PU17/149895

## Editorial Board:

- ❖ **Guest Editor** of '*Journal of Visualized Experiments (JoVE)*'. It is publishing in documents in visual form (Video). JoVE is abstracted and indexed in Index Medicus, MEDLINE/PubMed, BIOSIS Previews and Science Citation Index Expanded (SCIE). According to the Journal Citation Reports, the journal had Impact Factor of 1.4 in year 2020.
- ❖ **Editorial Board Member** of journal '*Applied and Computational Mathematics (ACM)*' valid till November 16, 2024.
- ❖ **Editorial Board Member** of journal '*Journal of Mathematical Techniques and Computational Mathematics (JMTCM)*'.
- ❖ **Editorial Board Member** of journal '*International Journal of Clinical and Medical Education Research (IJCMER)*'.
- ❖ **Section Collection Editor** in journal '*Insight Mechanics*' on topic '**Mechanics of Materials**'.

## **Responsibilities in the Department:**

- ✓ Internal Assessment of B.Sc. (Mathematics) students during academic sessions 2021-2022 and 2022-2023.
- ✓ Admission coordinator of M.A./M.Sc. (Mathematics) during academic sessions 2020-2021 and 2022-2023.

## **Academic Activities/Responsibilities:**

- Played a role of Organizing Secretary by organizing a national seminar on topic “135<sup>th</sup> Birth Anniversary of Great Indian Mathematician Srinivasa Ramanujan” on December 22, 2022 in Department of Mathematics, Rajju Bhaiya Institute, VBSPU.
- Played a role of Convenor by organizing a national seminar (online) on topic “134<sup>th</sup> Birth Anniversary of Great Indian Mathematician Srinivasa Ramanujan” on December 22, 2021 in Department of Mathematics, Rajju Bhaiya Institute, VBSPU.
- Played a role of Convenor by organizing a national seminar (online) on topic “Career Opportunities in Mathematics” on September 11, 2021 in Department of Mathematics, Rajju Bhaiya Institute, VBSPU.
- Played a role of Co-convenor by organizing a seminar on “National Mathematics Day” on December 22, 2020 in Department of Mathematics, Rajju Bhaiya Institute, VBSPU.

## **Refresher Course:**

- Participated in ‘Refresher Course in Mathematics’ during November 02-15, 2022 organized by Department of Mathematics, University of Allahabad, Prayagraj.

## **Orientation and Faculty Development Programme:**

- Participated in 1-week *Faculty Development Programme* on “National Education Policy-2020” during March 28, 2022 - April 03, 2022 organized by Ramanujan College, University of Delhi.
- Participated in 1-week *Faculty Development Programme* during September 21, 2020- September 25, 2020 organized by Mathematics and Scientific Computing Department, Madan Mohan Malaviya University of Technology, Gorakhpur.
- Participated in 4-week *Induction/Orientation Programme* during June 04, 2020 - July 01, 2020 organized by Ramanujan College, University of Delhi.

## Invited Talk:

- Delivered a lecture on topic “*Geometrical Meaning of Differential Equations: Singular Solutions*” on February 12, 2021 in Department of Mathematics, Govt. S.S.A. P.G. College Sihora Jabalpur (M.P.).

## Members of Committees:

- Board of Studies (B.O.S.) Committee, Department of Mathematics, VBSPU
- Ph.D. Ordinance Committee, V.B.S. Purvanchal University
- Ordinance Committee, V.B.S. Purvanchal University
- Plagiarism Checker Committee, V.B.S. Purvanchal University
- Monitoring Committee, V.B.S. Purvanchal University
- Time-Table Committee, Rajju Bhaiya Institute, VBSPU
- Sports Committee, Rajju Bhaiya Institute, VBSPU
- Safety and Security Committee, Rajju Bhaiya Institute, VBSPU

## Published Research Papers:

- R. Selvi, **D.K. Maurya** and P. Shukla, Analytical Solution of a Couple Stress Fluid Saturated in a Porous Medium Through a Reiner-Rivlin Liquid Sphere, *Phys. Fluids*, Vol. 35, Article no. 073106, 2023, I.F. 4.980 (**Q1 & SCI**), <https://doi.org/10.1063/5.0149507>.
- P.K. Maurya, S. Deo and **D.K. Maurya**, Couple Stress Fluid Flow Enclosing a Solid Sphere in a Porous Medium: Effect of Magnetic Field, *Phys. Fluids*, Vol. 35, Article no. 072006, 2023, I.F. 4.980 (**Q1 & SCI**), <https://doi.org/10.1063/5.0155532>.
- S. Deo and **D.K. Maurya**, Investigation of MHD Effects on Micropolar–Newtonian Fluid Flow Through Composite Porous Channel, *Microfluid. Nanofluid.*, vol. 26, Article no. 64, pp. 1-16, 2022, I.F. 3.090 (**Q1 & SCI**).
- **D.K. Maurya** and S. Deo, Effect of Magnetic Field on Newtonian Fluid Sandwiched Between Non-Newtonian Fluids Through Porous Cylindrical Shells, *Spec. Top. Rev. Porous Media*, vol. 13 (2), pp. 75-92, 2022, I.F. 0.466 (**SCOPUS**).
- S. Deo, **D.K. Maurya** and A. N. Filippov, Effect of Magnetic Field on Hydrodynamic Permeability of Biporous Membrane Relative to Micropolar Liquid Flow, *Colloid J.*, vol. 83(6), pp. 662-675, 2021, I.F.: 0.93 (**SCI**).
- **D.K. Maurya**, S. Deo and D.Y. Khanukaeva, Analysis of Stokes Flow of Micropolar Fluid Through a Porous Cylinder, *Math. Meth. Appl. Sci.*, vol. 44(8), pp. 6647-6665, I.F.: 3.007 (**Q1 & SCI**).
- S. Deo, **D.K. Maurya** and A.N. Filippov, Influence of Magnetic Field on Micropolar Fluid Flow in a Cylindrical Tube Enclosing an Impermeable Core Coated with Porous Layer, *Colloid J.*, vol. 82(6), pp. 649–660(2020), I.F.: 0.866 (**SCI**).

- **D.K. Maurya** and S. Deo, Stream Function Solution of the Brinkman Equation in Parabolic Cylindrical Coordinates, *Int. J. Appl. Comput. Math.*, vol. 6:167 (2020), (SCOPUS).
- S. Deo and **D.K. Maurya**, Generalized Stream Function of the Brinkman Equation in the Cylindrical-Polar Co-ordinates, *Spec. Top. Reviews Porous Media*, vol. 10(5), pp. 421-428(2019), I.F. 0.466 (SCOPUS).

### Published Books (Edited):

- ❖ **Dr. Deepak Kumar Maurya et al.**, A Text Book of Algebra, *Vandana Pub.*, 2022 (ISBN No. 978-93-91245-02-3).
- ❖ **Dr. Deepak Kumar Maurya et al.**, Differential Equations, *Vandana Pub.*, 2022 (ISBN No. 978-93-94653-01-6).

### Paper presented in conferences:

- Presented the research paper entitled ‘*Effect of Magnetic Field on Hydrodynamic Permeability of Biporous Membrane Relative to Micropolar Liquid Flow*’ in the international conference entitled “Applied Mathematics, Informatics, and Computing Sciences (AMICS-2022)” organized by Bosen Academic Research Institute, Shanghai, China during December 5-7, 2022, Online (Microsoft Teams).
- Presented the research paper entitled “*Effect of Magnetic Field on Newtonian Fluid Sandwiched Between Non-Newtonian Fluids Through Porous Cylindrical Shells*” in the international conference entitled “Advances in Mechanics, Modelling, Computing and Statistics (ICAMMCS-2022)” organized (online) by Department of Mathematics, BITS Pilani - Pilani Campus, Rajasthan, India during March 19-21, 2022.
- Presented the research paper entitled “*Influence of Magnetic Field on Micropolar Fluid Flow in a Cylindrical Tube Enclosing an Impermeable Core Coated with Porous Layer*” in the National conference entitled “New Challenges Emerging in Mathematical Sciences” organized by Banaras Hindu University, Varanasi (Uttar Pradesh) during *February 06-07, 2021*.
- Presented the research paper entitled “*MHD Effects on Micropolar-Newtonian Fluid Flow Through a Composite Porous Channel*” in the international conference entitled “Membrane Process Modeling (MPM-2020)” organized (online) by Department of Higher Mathematics, Gubkin Russian State University of Oil and Gas, Moscow, Russia during December 03-04, 2020.
- Presented the research paper entitled “*Generalized Stream Function of the Brinkman Equation in the Cylindrical-Polar Co-ordinates*” in the National

conference entitled “Recent Trends in Mathematics and Their Applications” organized by Shri Ramswaroop Memorial University, Lucknow (Uttar Pradesh) during *February 21-22, 2019*.

- Presented the research paper entitled “*Stream Function Solution of the Brinkman Equation in Parabolic Cylindrical Co-ordinates*” in the international conference entitled “Mathematical Modeling and Computations” organized by South Asian University, Chanakyapuri (Delhi) during *December 01-03, 2018*.

### **Attended/participated in the workshops and seminars:**

- Participated in One Day International Seminar on “*Transforming Youth Skills for Future 2022 and Academic Excellence Award*” organized by Center for Professional Advancement Continuous Education (CPACE), Vijayawada (Andhra Pradesh) on July 22, 2022.
- Participated in One Day National Seminar on “*Integrated Approach in Research & Development for Sustainable Future and Academic Excellence Award*” organized by International Multidisciplinary Research Foundation (IMRF), Vijayawada (Andhra Pradesh) on May 14, 2022.
- Participated in Two Days Workshop on “*National Assessment and Accreditation Council (NAAC)*” organized by Veer Bahadur Singh Purvanchal University, Jaunpur (Uttar Pradesh) during May 13, 2022 - May 14, 2022.
- Participated in Two Days Workshop on “*Outcome Based Education*” organized by Veer Bahadur Singh Purvanchal University, Jaunpur (Uttar Pradesh) during April 22, 2022 - April 23, 2022.
- Participated in the workshop entitled “*MATHEMATICA as a Teaching Aid*” organized by IIT, Roorkee (Uttarakhand) during *June 10-14, 2019*.
- Participated in the workshop entitled “*Applications of MATLAB in Science and Technology*” organized by Motilal Nehru National Institute of Technology, Prayagraj (Uttar Pradesh) during *April 01-05, 2019*.
- Participated in the National workshop entitled “*Advances in Applications of Computational Fluid Dynamics*” organized by Motilal Nehru National Institute of Technology, Prayagraj (Uttar Pradesh) during *March 06-11, 2019*.
- Participated in the NCM workshop entitled “*Continuum Mechanics: Principles and Applications*” organized by Panjab University, Chandigarh (Punjab) during *November 19-24, 2018*.
- Participated in the GIAN short term course entitled “*Role of Fluid Flow and Mass Transport in Porous Media for Design of Chemical Reactors for Groundwater Remediation*” organized by IIT, Guwahati (Assam) during *August 20-24, 2018*.

- Participated in the national seminar entitled “*Higher Education and Job Opportunities in Rural Areas*” organized by Pt. R.L.S. Govt. P.G. College, Alapur Ambedkar Nagar (Uttar Pradesh) on *February 28, 2018*.
- Participated in the GIAN short term course entitled “*Introduction to Mathematical Theory of Complex Fluids*” organized by NIT, Kurukshetra (Haryana) during *November 17-22, 2017*.
- Participated in the GIAN short term course entitled “*Monotone Iterative Techniques*” organized by IIT, Patna (Bihar) during *November 05-11, 2017*.

**Date: 28.07.2023**

**Place: Jaunpur (U.P.)**