

Curriculum Vitae

Pankaj Mishra, Ph.D.

Department of Physics

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(Indian School of Mines)

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Current Position

- Professor, Department of Physics, IIT(ISM), Dhanbad, India.
(Since 24th February 2025)

Previous Appointments

- Associate Professor, Department of Physics, IIT(ISM), Dhanbad, India.
(June 2019- February 2025)
- Assistant Professor, Department of Physics, IIT(ISM), Dhanbad, India.
(November 2008- June 2019)

Research Interest

- Soft condensed matter physics: Theory and Simulation of Colloidal Suspensions and Liquid Crystals.

Education

1. **M.Sc.** (Physics), 1999; Department of Physics, Banaras Hindu University, Varanasi, India
Division I.
2. **Ph.D.**, 2006; Department of Physics, Banaras Hindu University, Varanasi, India.
Thesis title: *Molecular Theory of Structure and Properties of Liquid Crystals*

CSIR-UGC NET

- Qualified CSIR-UGC NET examination in 2001 and 2002.

Post-Doctoral Positions

- Post-Doc fellow: September'2006-October'2007, JNCASR (Bangalore)(working at Department of Physics, BHU) associated with Prof. T. V. Ramakrishnan and Prof. Yashwant Singh.
- Post-Doc Fellow: October'2007-November'2008, Institute for theoretical physics: Soft Matter, Heinrich-Heine-University, Düsseldorf, Germany, associated with Prof. H. Löwen and Prof. C. N. Likos.

Ph.D. thesis supervised

A. Ph.D. Awarded: 08

1. Ms. Manjori Mukherjee (2015)
Adm. No. 2010DR0032
2. Mr. Sanat Kumar (2016)
Adm. No. 2011DR0041
3. Ms. Shikha Dwivedi (2017)
Adm. No. 2012DR0114
4. Mr. Anupam Kumar (2019)
Adm. No. 2014DR0271
5. Mr. Biplab Kumar Mandal (2021)
Adm. No. 2015DR0192
6. Ms. Pallabi Kundu (2022)
Adm. No. 2016DR000209
7. Mr. Sahire Azam Ansari (2024)
Adm. No. 2016DR000209
8. Ms. Moushila Bayen (2026)
Adm. No. 19DR0089

B. Ph.D. student currently supervising: 03

Dissertaion supervised

No. of M. Phil. project supervised: 02

No. of M.Sc. Dissertation project supervised: 34

No. of B.Tech. Dissertation project supervised: 07

Externally funded research projects: 04

Completed: 04; Ongoing: Nil

1. Project Number: DST(SERB)(218)/2018-2019/631/AP

Principal-investigator

Project title: Structure and Properties of nematic liquid crystal colloids in confined geometry; Theory, Computer Simulation and Experiments

Sponsored by: SERB, New Delhi

Project value: Rs. 23.364 Lakh

Period: 2019-22

2. Project Number: CIL(8)/2017-2018/539/CHEMICAL ENGG

Co-investigator

Project title: High ash coal gasification and associated upstream and downstream process (Coal to Chemical-CTC)

Sponsored by: Coal India Limited (CIL)

Grant released: Rs. 1580 Lakh

Period: 2017-20

3. Project Number: DST(80)/2013-2014/359/APH

Principal-investigator

Project title: Density functional theory for freezing transitions and properties of inhomogeneous systems

Sponsored by: SERB, New Delhi

Project Value: Rs. 15.4675 Lakh

Period: 2014-17

4. Project Number: UGC(67)/2010-11/287/APH

Principal-investigator

Project title: Density Functional Theory of Structure and Properties of Colloidal Dispersions in External Fields

Sponsored by: UGC, New Delhi

Project value: Rs. 7.523 Lakh

Period: 2011-14

Academic Distinctions

1. Senior Research Fellow (2005-2006), Council of Scientific and Industrial Research, India.
2. Senior Research Fellow (2003-2005), Department of Science and Technology(DST), New Delhi, India.

3. Senior Research Fellow (2002-2003), Banaras Hindu University, India.
4. Junior Research Fellow (2000-2002), Banaras Hindu University, India.
5. In TPSC category “A” speaker during Aug 2004 to Aug 2005.

Member of Scientific Societies

1. Life member of International Liquid Crystal Society
2. Life member of the Indian liquid Crystal Society
3. Member of International Association of Colloids and Interface Scientists
4. Life Member of Indian Physics Association

Conference/training program/workshops organised

1. One-week GIAN course on ”Statistical Mechanics of Active Matter: Principles, Models, and Applications”, with foreign expert Prof. Zhiwei Peng, Department of Chemical and Materials Engineering, University of Alberta, Canada. October 06-11, 2025. (**Coordinator**)
2. Two-week refresher course on Advanced Concepts in Biophysics and Soft Matter: Foundations and Frontiers; supported by MMTTP UGC, Government of India; October 18-29, 2024. (**Coordinator**)
3. One Week Training Program on “Synthesis and Characterization of Nanomaterials for Energy, Lighting and Bio-imaging Applications” as Coordinator under “Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)” program supported by Department of Science and Technology (DST), Govt. of India; November 07-13, 2022. (**Coordinator**)
4. 23rd National Conference on Liquid Crystals (NCLC-2016) as convener. December 07-09(2016). (**Convener**)
5. National Conference on Advances in Laser and Spectroscopy, November 1-3, 2012. (**Co-convener**)
6. Organized National Conference on Advances in Spectroscopic techniques and Materials as Co-convener. March 14-16 (2018). (**Co-convener**)
7. National Training program on ”Advances in New and Renewable Energy Materials and Technology“ as Co-CI; Sponsored by MNRE; 23-27 March 2015 (**Co-coordinator**)
8. National Training program on ”Renewable Energy ONGC Materials and Technology in Academia and Industry (REMTAI-2016)“ as Co-CI; Sponsored by ONGC; March 2-4, 2016 (**Co-coordinator**)

9. Organised "National Training Program on LASERS: Technology and applications in engineering" as Co-CI; Sponsored by SERB; May 16-22 2016. **(Co-coordinator)**
10. Organised International Conference on Advances in Spectroscopic techniques and Materials as Co-convener. January 18-20 (2024). **(Co-convener)**

Laboratory Development

1. Developed four state of art laboratories at NVCTI, IIT(ISM) Dhanbad namely IoT and Electronics lab, Animation and Game Design Lab, Mechanical and Rapid prototyping lab and Pouch Battery Cell Assembly lab.
2. Developed a High performance computing cluster facility with 56 computing nodes in the department of applied physics

Administrative responsibilities

1. Chairperson Time-Table Core Committee: 28 September 2025 to continue
2. SPGC Chairperson and senate nominee: 16 September 2025 to continue
3. Acting Dean (IIE-Innovation, Incubation and Entrepreneurship): May 2022–October 2023
4. Associate Dean (Innovation): July 2020 –October 2023
5. HOC, Naresh Vashisht Center for Tinkering and Innovation(NVCTI): July 2020–October 2023
6. Associate Dean IRAA(Inovation and Incubation): July 2019 – July 2020
7. HOC, Center for Innovation, Incubation and Entrepreneurship(CIIE): July 2019 to July 2020
8. Member Excutive Board, Indian School of Mines and Member Board of Governors, Indian Institute of Technology(Indian School of Mines), Dhanbad: February 2016 – June 2017
9. Warden (Jasper Hostel, ISM Dhanbad) : July 2012 – May 2015
10. Coordinating warden for foreign students: June 2018 – June 2020
11. DPGC Convener, Department of Physics: 2021-22
12. Course Coordinator B. Tech. (Engineering Physics): July 2014–2019
13. Faculty In-Charge Training and Placement (Department Applied Physics, ISM): July 2009 – June 2014
14. Faculty In-Charge of the Society of Applied Physics: 2009–2015
15. Faculty advisor for Techno-cultural event AUSPORA: 2009 to 2010
16. Chairman AUSPORA organizing committee: 2011
17. Core Member of the BOCS-2011 and 2015 of the Department of Physics

Participation in Schools/Workshops/Conferences

1. International Conference on Recent Advances in Multifunctional Materials and Devices (ICRAMMD-2026), March 9-11, 2026; Organised by Department of Physics, Institute of Science, Banaras Hindu University, Varanasi. (Invited Talk)
2. 32th National Conference on Liquid Crystals, November 20-22, 2025; organised by Department of Physics, BITS Pilani, Pilani. (Invited Talk)
3. National Conference on Chemical Physics(NCCP-2024), March 18-19, 2024; Organised by Department of Physics, Assam University, Silchar.(Invited Talk)
4. Meghnad Saha Memorial International Conference on Froniers of Physics(MSMICEP-2023), November 22-24, 2023; organised by Department of Physics, University of Allahabad.(Invited Talk)
5. 30th National Conference on Liquid Crystals, November 02-04, 2023; organised by Department of Physics, Andhra University, Vishakhapattanam. (Invited Talk)
6. International Conference on Statistical Physics (SigmaPhi), July 10-14, 2023; Chania-Crate Greece.(Oral Presentation)
7. 29th National Conference on Liquid Crystals, December 08 to 10, 2022; organised by Department of Chemistry and Centre for Advanced Research and Development , CHRIST University, Bengaluru. (Invited Talk)
8. 28th National Conference on Liquid Crystals, December 21-23, 2021; organised by Department of Chemistry, Assam University, Silchar in virtual mode.(Invited Talk)
9. 16th Conference of the International Association of Colloid and Interface Scientists, May 21-25, 2018, Jointly organized by Soft Matter group of Wageningen University and Research and the Department of Chemical Engineering of the Delft University of Technology in Rotterdam, Netherlands.(Oral Presentation)
10. National Conference on Recent Trends in Condensed Matter Physics (RTCMP 2017), October 31-November 03, 2017, Bose Institute Kolkata. (Invited Talk)
11. 24rd National Conference on Liquid Crystals (NCLC-2017), October 11-13, 2017, IISER Mohali.(Invited Talk)
12. 6th International Conference on Functional Electroceramics and Polymers (ICEP-2017), February 20-23, 2017, IIT Kharagpur.(Invited Talk)
13. International Conference on “Challenges and Prospects of Petroleum Production and Processing Industries”, Petroleum Engineering Diamond Jubilee Program (PEDJP-2017), January 12-14, 2017, IIT(ISM), Dhanbad.

14. 23rd National Conference on Liquid Crystals (NCLC-2016), December 07-09, 2016, IIT(ISM), Dhanbad.
15. *Condensed Matter Days (CMDAYS-2016)*, August 29-31, 2016, Mizoram University, Aizawl.(Invited Talk)
16. XXVII IUPAP *Conference on Computational Physics (CCP-2015)*, December 2-5, 2015, IIT Guwahati.(Invited Talk)
17. *Condensed Matter Days (CMDAYS-2015)*, August 27-29, 2015, Visva-Bharti University, Shantiniketan.(Invited Talk)
18. 15th Conference of the International Association of Colloid and Interface Scientists, May 24-29, 2015, Max Planck Institute for Polymer research, Mainz, Germany.(Oral presentation)
19. 21st *National Conference on Liquid crystals (NCLC-2014)*, November 10-12, 2014, CSJM University, Kanpur.(Invited Talk)
20. International Conference on *Future Challenges in Earth Sciences for Energy and Mineral Resources*, November 14-16, 2013, Department of Applied Geology, ISM Dhanbad.
21. International Conference on *Structural And Physical Properties of Solids (SPPS 2013)*, November 18-20, 2013, Department of Applied Physics, ISM Dhanbad.
22. National Conference on *Laser and Spectroscopy ALS-2012*, November 01-03,2012, Department of Applied Physics, ISM Dhanbad
23. National Workshop on *Advancement in Nano Materials and its Applications*, February 9-11, 2012, Department of Physics, D. A-V College, Kanpur.(Invited Talk)
24. National seminar on *Nano materials and their applications*, February, 10-11,2011, Department of Applied Physics, ISM Dhanbad.
25. National conference on *Advances in Polymer Science and Technology (APST-2010)*, 22-24 October, 2010, NIT Hamerapur.(Invited Talk)
26. International *Conference on Mesogenic and Ferroic material*, held at BHU Varanasi, India ;January 9-11, 2009, organized by Department of Physics, Banaras Hindu University. (Invited Talk)
27. International Conference on *Disorder, Complexity and Biology II*, held at BHU Varanasi, India ;January 5-8, 2009, organized by Department of Physics, Banaras Hindu University. (Oral Presentation)

28. 7th Liquid Matter Conference, organised by The Liquid Section of The Condensed Matter Division of the European Physical Society and Lund University at Lund, Sweden, 27 June to 1st July 2008. (Poster Presentation)
29. International Conference on *Colloidal Dispersions in External Fields: CODEF II*, Gustav-Stresemann-Institute e.V., Bonn, Germany, March-April'2008. (Poster Presentation)
30. International Conference on *Assembly, Organization and Propulsions in Complex Systems*, held at IIT Chennai, India from 22-24 February 2007.(Poster Presentation)
31. International Conference on *Disorder, Complexity and Biology*, held at BHU Varanasi, India ;July 12-15, 2004. (Organized jointly by Department of Physics, Banaras Hindu University and S.N. Bose National Centre for Basic Sciences, Kolkata). (Poster Presentation)
32. SERC School on *Statistical Physics* held at Tata Institute of Fundamental Research, Mumbai, India; February 16-28, 2004.
33. Conference of liquid crystals and other soft materials, Organized by Raman Research Institute, Bangalore (India); December 2002. (Poster Presentation)
34. One Day National Conference on Science, Engineering and Technology, *VISION-2001*, held at Varanasi, India; May 1, 2001. (Organized by Research Students at Banaras Hindu University, Varanasi, India).

Personal Information

Date of Birth November 04, 1976
Nationality India
Martial Status Married
Home Address H. No. 10/x/B, Tulsi Sagar(Tanda), Ghazipur-233001,U.P., India.

(Pankaj Mishra)