Bidhan Chandra, Ph.D.

bidhan@iitism.ac.in
LinkedIn Profile
https://www.linkedin.com/in/bidhan-chandra-868215254/

Employment History

2022 – current **Assistant Professor**, Chemical Engineering, IIT(ISM) Dhanbad

2020 – 2022 **Assistant Professor**, Chemical Engineering, IISER Bhopal

2019 – 2020 **Post Doctoral Researcher**, Delft University of Technology, Netherlands

Education

2013 – 2020 **Ph.D., IIT Kanpur**, Chemical Engineering
Thesis title: *Instability in the flow of polymer solutions*

2009 – 2013 **B.Tech, NIT Durgapur**, Chemical Engineering

Research Publications

Journal Articles

1. W. Hogendoorn, B. Chandra, and C. Poelma, "Universal scaling for the onset of turbulence in particle-laden flows," *Physical Review Fluids (Letters)*, vol. 7, 2022.
2. W. Hogendoorn, B. Chandra, and C. Poelma, "Suspension dynamics in transitional pipe flow," *Physical Review Fluids*, vol. 6, 2021.
3. W. Hogendoorn, B. Chandra, and C. Poelma, "Universal scaling for the onset of turbulence in particle-laden flows," *arXiv preprint arXiv:2104.14883*, 2021.
4. B. Chandra, V. Shankar, and D. Das, "Early transition, relaminarization, and drag reduction in the flow of polymer solutions through microtubes," *Journal of Fluid Mechanics*, vol. 885, 2020.
5. B. Chandra, R. Mangal, D. Das, and V. Shankar, "Instability driven by shear thinning and elasticity in the flow of concentrated polymer solutions through microtubes," *Physical Review Fluids*, vol. 4, 2019.
6. B. Chandra, V. Shankar, and D. Das, "Onset of transition in the flow of polymer solutions through deformable tubes," *Physics of Fluids*, vol. 31, 2019.
7. B. Chandra, V. Shankar, and D. Das, "Onset of transition in the flow of polymer solutions through microtubes," *Journal of Fluid Mechanics*, vol. 844, 2018.

Conference Proceedings

1. B. Chandra and V. Shankar, "Laminar-turbulent transition in polymer solutions through micro-tubes," in *Bulletin of the American Physical Society*, 2019.
2. B. Chandra and V. Shankar, "Elastic and shear thinning instabilities for the flow of polymer solutions through microtubes," in *APS Division of Fluid Dynamics Meeting Abstracts*, Atlanta, USA, 2018, H34. 008.

Skills

Languages	Hindi and English
Software	Java, C++, Fortran, MATLAB, LaTeX, Origin

Sponsored Projects

2022 **SERB Start Up Research grant, Rs 33 Lakhs**, Elastic and Shear-thinning instability in the flow of polymer solutions

2001 **IIT(ISM) Dhanbad Faculty Research Scheme, Rs 15 Lakh** Laminar-turbulent transition in polymer flows.

Courses Taught

2020-21 Winter	**Process Design and Economics**
	Engineering Drawing and Design
2021-22 Monsoon	**Process Dynamics and Control**
2021-22 Winter	**Process Design and Economics**
	Engineering Drawing and Design
2022-23 Monsoon	**Process Design and Economics**
	Catalytic Processes and Reactors
2022-23 Winter	**Advanced Mass Transfer**
2023-24 Monsoon	**Heat Transfer**
2023-24 Winter	**Principles of Mass Transfer**