

Name: Dr. Mrinmoy Dhar
Designation: Assistant Professor
Branch: Mechanical Engineering



Educational Qualification(s):

Qualification(s)	University
B. Tech (Mechanical Engineering)	(NIT Agartala)
M.E. (Mechanical Engineering/Heat Power Specialization)	(Jadavpur University)
Ph.D. (Mechanical Engineering/Thermal Engineering Specialization)	(IIT Kharagpur)

Award:

University Medal from **Jadavpur University** for securing 1st rank in Mechanical Engineering Department.

Gate Fellowship Award (Qualified GATE two times).

Experience in years:

Academic: Nil

Industrial: Nil

Other Information:

a) Publication details.

1. **M. Dhar**, G. Das and P. K. Das. (2020). Planar Hydraulic Jumps in Thin Film Flow. **Journal of Fluid Mechanics**, 884, A11 1-26.
2. **M. Dhar**, S. Ray, G. Das and P. K. Das. (2021). Internal Hydraulic Jump in Plane Poiseuille Two-layer Flow: Theoretical, Numerical and Experimental Study. **Journal of Fluid Mechanics**, 912, A45 1-20.
3. **M. Dhar**, G. Das and P. K. Das. (2021). Planar Hydraulic Jump and Associated Hysteresis in Near Horizontal Confined Flow. **Physical Review Fluids**, 6, 084803 1-21.

4. **M. Dhar**, S. Ray, G. Das and P. K. Das. (2021). Modulation of Viscous Planar Jump by an Obstacle in the Flow Path –Interrogation through Shallow Water Equations and Numerical Analysis, *Physics of Fluids*, 33, 053609, 1-13.
5. **M. Dhar**, S. Ray, G. Das and P. K. Das. (2022). Hydraulic jump induced flooding and slugging in stratified gas-liquid flow - an experimental appraisal, *Experimental Thermal and Fluid Science*, 134, 110617, 1-8.
6. **M. Dhar**, N. Barman, S. Mandal and H. Chattopadhyay. (2014). Remelting during Solidification of a Eutectic Solution in a Top Cooled Rectangular Cavity: A Numerical Study. *International Journal of Heat & Mass Transfer*, 77, 730-737.
7. **M. Dhar**, N. Barman, H. Chattopadhyay and S. Simlandi. (2015). Heatline Visualization during Solidification of a Eutectic Solution in a Rectangular Cavity. *Transactions of the Indian Institute of Metals*, 68 (6), 1187-1192.
8. **M. Dhar**, N. Barman, S. Mandal and H. Chattopadhyay. (2014). Effect of Prandtl Number on Solidification Behavior of Eutectic Solutions. *Procedia Materials Science*, 5, 704-711.
9. S. Mukherjee, S. Samanta, **M. Dhar**, S. Barman, N. Barman, A. Mukhopadhyay and S. Sen. (2014). Heatline Based Thermal Behaviour during Cooling of a Hot Moving Steel Plate Using Multiple Jets. *Procedia Materials Science*, 5, 2063-2068.
10. A. Mukherjee, **M. Dhar** and N. Barman. (2014). Pneumatic Transport of Coarse Grain Particle Using Air Mass Balance Model. *Applied Mechanics and Materials*, 592, 1940-1944.
11. S. Samanta, S. Mukherjee, **M. Dhar**, S. Barman, N. Barman, A. Mukhopadhyay and S. Sen. (2014). Heatline Based Thermal Behaviour during Cooling of a Hot Moving Steel Plate Using Single Jet. *Applied Mechanics and Materials*, 592, 1622-1626.

(b) Details of Seminar/Workshop/Conference

Research Publications presented in Conferences

1. **M. Dhar**, S. Ray, G. Das and P. K. Das. (2021), Internal hydraulic jump induced slugging and flooding in two phase gas-liquid flow, 2021 AIChE Annual Meeting, November 7-11, 2021, **Boston**, MA.
2. **M. Dhar**, G. Das and P. K. Das. (2018), Internal hydraulic jump and drop in two phase gas-liquid flow over an obstacle, 2018 AIChE Annual Meeting, October 28-November 2, 2018, **Pittsburgh**, PA.

3. B. Samanta, **M. Dhar**, M. Kaushal, S. Ray and G. Das. (2021), Laminar planar hydraulic jump in shear thinning liquid, COMPFLU 2021, December 13-15, 2021, IIT Gandhinagar and Indian Society of Rheology, India.
4. **M. Dhar**, G. Das and P. K. Das. (2018), Hydraulic jumps and drops across obstacles, COMPFLU 2018, December 6-9, 2018, IIT Roorkee, India.
5. **M. Dhar**, G. Das and P. K. Das. (2017), Discontinuity in depth during liquid flow through a channel, International Conference on Advances in Petroleum, Chemical, and Energy Challenges (APCEC), March 24-25, 2017, Rajiv Gandhi Institute of Petroleum Technology, Jais, India.
6. **M. Dhar**, G. Das and P. K. Das. (2016), Gas-liquid stratified flow across a T junction – Dynamics of internal hydraulic jump, 9th International Conference on Multiphase Flow (ICMF), May 22-27, 2016, **Italy**.
7. **M. Dhar**, G. Das and P. K. Das. (2015), Interfacial dynamics of stratified co-current flow through a conduit, CHEMCON 2015, December 27-30, 2015, IIT Guwahati, India.