

**Dr. Subas Chandra Dash**

Assistant Professor (SG)

**Education:** Ph.D, IIT Kharagpur

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**Areas of Interest:** Computational fluid dynamics; Turbulence modeling (large eddy simulation); Convective Heat and Mass transfer; Magneto hydrodynamics. Joules heating and Soret and Dufour Effects in MHD flow

**Brief Profile:**

Dr Subas Chandra Dash received his B.Tech. degree in Mechanical Engineering from JIET, Cuttack, BPUT, Odisha, India, and M.Tech. degree in computer integrated design and manufacturing from mechanical engineering department, NIT Jamshedpur, Jharkhand, India. He received silver medal from NIT Jamshedpur in 2008 convocation as the topper of Mechanical Engineering department in M. Tech. His M.Tech dissertation was titled as "Numerical analysis of natural convection in a porous annulus". He was awarded Ph.D. degree in November 2015 at IIT. Kharagpur. His thesis is entitled as "Incompressible confined swirling flow in a cylindrical cavity with rotating lid under the influence of axial temperature gradient or axial magnetic field". He also worked as an institute research scholar at IIT Kharagpur for 3½ years.

**MEMBER:**

1. International Association of Engineers
2. International Society of Environmental Relationship And Sustainability (ISERS) M. Tech

**Thesis Guidance:**

Trilok Raj Chohan, "Analysis of the flow of liquid aluminium in a high pressure die casting injection chamber and reduction of casting defects", 2014.

**Reviewer of International Journals:**

1. Journal of Applied Fluid Mechanics
2. International Journal of Applied Mechanics
3. International Journal of Modern Physics C

**Publication@JUET**

[Publication details google profile link](#)

**JOURNALS**

1. Singh, A., Tiwari, G. and Dash, S.C., (2023). Thermodynamic Analysis of Solar Heat Exchanger Assisted Ammonia-Water VARS System. Journal of Advanced Mechanical Sciences, 2(1), pp.1-9.

2. Chandra Dash, S., (2021). CFD analysis of Joule heating effect in a confined axi-symmetric swirling flow under the influence of axial magnetic field. *International Journal of Computational Materials Science and Engineering*, 10(03), p.2150010.
3. Dash, S.C., (2021). MHD braking and Joules heating effect in a rotating confined cylindrical cavity packed with liquid metal. *FME Transactions*, 49(2), pp.437-444.
4. Dash, S.C. and Singh, N., (2019). Effect of a strong axial magnetic field on swirling flow in a cylindrical cavity with a top rotating lid. *International Journal of Modern Physics C*, 30(11), p.1950092.
5. Dash, S.C. and Singh, N.(2019). Influence of axial magnetic field on swirling flow and vortex breakdown zones in a cylindrical cavity with a rotating lid. *International Journal of Applied Mechanics*, 11(06), p.1950054.
6. Dash, S.C. and Singh, N., (2018). Stability boundaries for vortex breakdowns and boundaries between oscillatory and steady swirling flow in a cylindrical annulus with a top rotating lid. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 40(7), pp.1-19.
7. DASH, S.C., (2017). study of axisymmetric nature in 3-d swirling flow in a cylindrical annulus with a top rotating lid under the influence of axial temperature gradient or axial magnetic field. *Journal of Thermal Engineering*, 3(6), pp.1588-1606.
8. Dash, S. and Singh, N.,(2016). Effects of partial heating of top rotating lid with axial temperature gradient on vortex breakdown in case of axisymmetric stratified lid-driven swirling flow. *Yildiz Technical University Press, Istanbul, Turkey, J. Thermal Engineering*, 2, pp.883-896.

#### **In Conference:**

1. Tiwari, G., Singh, A. and Dash, S.C.,(2022). Performance of a vapor absorption refrigeration system at different atmospheric temperature, 66TH CONGRESS OF ISTAM FM3, IIT Kharagpur