


FACULTY PROFILE

	Name	Dr. JAYAPRAKASH PANDA
	Designation	Professor of Mathematics
	Phone No.	7008582480
	Email ID.	jppanda_math@vssut.ac.in jpanda123@gmail.com
	Date of Birth	09.06.1973
	Date of Joining	21.06.2014
	Qualification	M.Sc., Ph.D.
Specialization	Fluid Dynamics, Numerical Analysis	
Experience	25 Years Teaching and 21 Years research experience	
Research Area	Fluid Dynamics, Numerical Analysis	
Research Guidance	Ph.D. guidance : 09 awarded (02 Last five years) and 5 continuing M.Sc. project guidance- 42	
Sponsored Projects & Consultancy	One project DST India (SERB SURE Grant)	
Publications	International Journals: 43 (16 Last five years) National Journals : Nil Conferences : 02	
Patents	NIL	
Seminar / Symposia / Short term Course organized	Organized one International conference as Co-Convener, “International Conference on Advances in Mathematics and Computing” held in 07-08 Feb 2020.sponsored by TEQIP-III Organized One International workshop as Convener, “International workshop on Recent Trends in Mathematics and applications” held in 01-02 Aug 2016.sponsored by TEQIP-II, VSSUT, Burla	
Extra Responsibility	Dean/Head School of Humanities & Basic Science VSSUT, Burla from 20.10.2022 to 30.6.2024 Dean SRIC, VSSUT, Burla from 18.6.2020 to 19.10.2022 HOD Mathematics VSSUT, Burla from 09.4.2016 to 30.4.2019 Member of Academic Council of VSSUT, Member of Board of studies of BPUT and GM University Member of Board of studies, DRC and DAC, Conducting Board of Mathematics Department, VSSUT	

LIST OF PUBLICATIONS OF Dr. J. P. PANDA

1. L. Panigrahi, J. P. Panda, Devendra Kumar and S. S. Sahoo, "Analytical investigation of polar fluid flow with induced magnetic field in concentric annular region", *Heat Transfer*, vol. 49, Issue 6, pp. 3943- 3957, 2020, doi: 10.1002/htj.21816, Available: <https://doi.org/10.1002/htj.21816>
2. L. Panigrahi, J.P. Panda, K. Swain and G.C. Dash, "Heat and mass transfer of MHD Casson nanofluid flow through a porous medium past a stretching sheet with Newtonian heating and chemical reaction", *Karbala International Journal of Modern Science*, vol. 6, Issue 3, Article 11, Oct 2020, doi: 10.33640/2405-609X.1740, Available: <https://doi.org/10.33640/2405-609x.1740>
3. L. Panigrahi, D. Kumar and J. P. Panda, "Impact of chemical reaction, hall current, and radiation on MHD flow between vertical walls", *Journal of Engineering Thermophysics* , vol. 30, no.1, pp.122-144, 2021, doi: 10.1134/s1810232821010100, Available: <https://doi.org/10.1134/s1810232821010100>
4. L. Panigrahi, J. Panda, S. S. Sahoo, "Unsteady heat transfer and entropy generation study on viscoelastic fluid flow coupled with induced magnetic field", *Iranian Journal of Science and Technology, Transactions A: Science*, vol.45, no.5, pp. 1699-1710, 2021, doi:10.1007/s40995-021-01126-z , Available: <https://doi.org/10.1007/s40995-021-01126-z>
5. Manasi Mishra and J.P. Panda, "Soret effect for unsteady MHD Mixed convective flow in porous medium with viscous dissipation ", *International Journal of Ambient Energy*, vol. 43, no.1, pp., 5605-5615, 2021, doi: 10.1080/ 01430750.2021.1969271, Available: <https://doi.org/10.1080/01430750.2021.1969271>
6. L. Panigrahi, J.P. Panda, G. C. Dash, "MHD natural convective flow of a polar fluid with Newtonian heat transfer in vertical concentric annuli ", *International Journal of Ambient Energy*, vol. 43 (1), pp.3410-3417, 2022, doi:10.1080/01430750.2020.1831953, Available: <https://doi.org/10.1080/01430750.2020.1831953>
7. L. Panigrahi, J.P. Panda, I. Khan, "Numerical analysis of entropy generation and induced magnetic field on unsteady stagnation flow with suction/injection" , *Numerical Heat Transfer, Part B: Fundamentals*, vol.82, no.3-4, 95-111, 2022, doi: 10.1080/10407790.2022.2068863, Available: <https://doi.org/10.1080/10407790.2022.2068863>
8. Arjun Agrawal and J.P. Panda, "Soret effect on MHD flow with hall current and induced magnetic field ", *International Journal of Ambient Energy*, 2022, doi:10.1080/01430750.2022.2128416, Available: <https://doi.org/10.1080/01430750.2022.2128416>
9. Manasi Mishra, J.P. Panda, Dileep Kumar and S. S. Sahoo, "Thermal radiation and Soret effects on boundary layer flow past a vertical surface embedded in porous medium with induced magnetic field with reference to Aluminum industry", *Journal of Thermal Analysis and Calorimetry*, vol. 147, no.23, pp. 13829 - 13845, 2022,doi: 10.1007/s10973-022-11644-6, Available: <https://doi.org/10.1007/s10973-022-11644-6>
10. M. Mishra, L. Panigrahi and J. Panda, "Investigation of induced magnetic field on MHD radiative flow across an exponentially stretching sheet", *International Journal of Ambient Energy*, pp.1-21, 2023, doi:10.1080/01430750.2023.2169757, Available: <https://doi.org/10.1080/01430750.2023.2169757>
11. Ilyas Khan, L. Panigrahi and J. Panda, "Entropy generation in unsteady stagnation flow through porous media in the presence of a high magnetic Reynolds number with a uniform heat source: renewable energy applications", *Waves in Random and Complex Media*, 2023, doi: 10.1080 /17455030. 2023. 2187235, Available: <https://doi.org/10.1080/17455030.2023.2187235>
12. Manasi Mishra, J.P. Panda and S.S. Sahoo, "Investigations concerning the effects of thermal radiation, induced magnetic field, and chemical reaction on MHD flow through a permeable medium", *International Journal of Modern Physics, B*, doi: 10. 1142/S0217979224500309, Available: <https://doi.org/10.1142/S0217979224500309>

13. Manasi Mishra and J.P. Panda, "Simulation of thermally radiative flow of a Maxwell's fluid toward exponentially stretchable surface with heat generation/absorption", *Numerical Heat Transfer, Part B: Fundamentals*, DOI: 10.1080/10407790.2023.2257878, vol.85, Issue-7, pp 906-921, 2024
Available: <https://doi.org/10.1080/10407790.2023.2257878>
14. Arjun Agrawal, J.P. Panda and K. S. Shadangi, "Study the Soret effects on Bioconvective induced magneto-hydrodynamics flow in presence of multiple slip and thermal Radiation", *Numerical Heat Transfer, Part B: Fundamentals*, DOI: 10.1080/10407790.2023.2262119,
Available: <https://doi.org/10.1080/10407790.2023.2262119>
15. Arjun Agrawal and J.P. Panda, "Impact of radiation on MHD flow with hall effect and induced magnetic field over magnetized vertical surface", *Songklanakarin Journal of Science and Technology*, vol. 45, no. 4, 483-493, Jul- Aug. 2023.
16. Manasi Mishra, J.P. Panda and S.S. Sahoo, "An Analytical investigation of MHD Natural Convective flow of a Polar Fluid in Two Vertical Concentric Cylinders with Hall Current and Heat Source", *Int. J. Applied and Computational Mathematics*, vol. 10, no. 75, Mar. 2024.
Available: <https://doi.org/10.1007/s40819-024-01714-8>
- 17 J.P. Panda, S. S. Das and G. C. Dash, "Unsteady free convective flow and mass transfer of a rotating elastic-viscous liquid through porous media past a vertical porous plate", *AMSE J. Modelling, Measurement and Control, B*, vol. 72, no. 3, pp. 47-59, 2003.
- 18 J.P. Panda, S. S. Das and G. C. Dash, "Laminar flow of elastic-viscous liquids through porous parallel stretching plates of different permeability", *AMSE J. Modelling, Measurement and Control, B*, vol. 73, no. 5, pp. 15-34, 2004.
- 19 J.P. Panda, S. S. Das and G. C. Dash, "Free convection flow and Mass transfer of an elastic-viscous fluid past an infinite vertical porous plate in a rotating porous medium", *AMSE J. Modelling, Measurement and Control, B*, vol. 73, no. 1, pp. 37-51, 2004.
- 20 J.P. Panda, S. S. Das and G. C. Dash, "Finite difference analysis of hydromagnetic flow and heat transfer of an elastic-viscous fluid between two horizontal parallel porous plates", *AMSE J. Modelling, Measurement and Control, B*, vol. 73, no. 2, pp. 31-44, 2004.
- 21 S. S. Das, S.K Sahoo and J.P. Panda, "Unsteady free convection MHD flow of a second order fluid between two heated vertical plates through a porous medium with mass transfer and internal heat generation", *AMSE J. Modelling, Measurement and Control, B*, vol. 74, no. 7, pp. 41-62, 2005.
- 22 J.P. Panda, A B Pattnaik and A. Acharya, "Free convection of conducting viscous fluid between two vertical walls filled with porous material", *AMSE J. Modelling, Measurement and Control, B*, vol. 75, no. 3, pp. 31-44, 2006.
- 23 J.P. Panda, S. S. Das and A B Pattnaik, "Hydromagnetic unsteady free convective flow and mass transfer of an elastico-viscous fluid past an infinite vertical porous plate in a rotating porous medium", *AMSE J. Modelling, Measurement and Control, B*, vol. 75, no. 3, pp. 57-71, 2006.
- 24 S. S. Das, S. K. Sahoo, G. C. Dash and J.P. Panda, "Free convective and mass transfer flow of a viscous incompressible fluid through a porous medium in the presence of source/sink with constant suction and heat flow", *AMSE J. Modelling, Measurement and Control, B*, vol. 75, no. 1, pp. 01-20, 2006.
- 25 S. S. Das, J.P. Panda and M. Mitra, "Unsteady free convective MHD flow and heat transfer of a second order fluid between two heated vertical plates through a porous medium", *Journal of Energy Heat and mass transfer*, vol. 29, pp. 137-151, 2007.
- 26 J.P. Panda, S.S.Das, A. B. Pattnaik and A.Satpathy, "Effect of induced magnetic field on MHD flow and heat transfer in a conducting elastic- viscous fluid past a continuously moving porous flat surface", *AMSE J. Modelling, Measurement and Control, B*, vol. 76, No. 5, pp. 81-92, 2007.
- 27 J.P. Panda, M. Panda and G. C. Dash, "Unsteady MHD flow of visco-elastic Maxwell fluid through rectangular porous tube", *AMSE J. Modelling, Measurement and Control, B*, vol. 77, no. 1, pp. 54-69, 2008.

- 28 J.P. Panda, M. Panda and G. C. Dash, "Unsteady free convection MHD flow and mass transfer of a second order fluid between two heated plates with source/sink", *AMSE J. Modelling, Measurement and Control, B*, vol. 77, no. 5, pp. 28-43, 2008.
- 29 J.P. Panda, M. Panda and G. C. Dash, "Transient mixed radiative convection MHD flow through porous media of a Micropolar fluid", *AMSE J. Modelling, Measurement and Control, B*, vol. 77, no. 3, pp. 52-66, 2008.
- 30 S. S. Das, M. Mitra, J.P. Panda and J. K. Das , "Mass transfer effects of unsteady free convective MHD flow of a rotating elastic-viscous fluid past an infinite vertical porous plate with constant suction and fluctuating temperature", *AMSE J. Modelling, Measurement and Control, B*, vol. 77, No. 3, pp. 01-18, 2008.
- 31 S. S. Das, M. Mohanty, J.P. Panda and S. K. Sahoo, "Hydromagnetic three dimensional Couette flow and heat transfer", *Journal of Naval Architecture and Marine Engineering*, vol. 5, no. 1, pp. 01-10, 2008.
- 32 S. S. Das, A. Satapathy, J.K. Das, J.P. Panda, "Mass transfer effects on MHD flow and heat transfer past a vertical porous plate through a porous medium under oscillatory suction and heat source", *International journal of heat and mass transfer*, vol. 52, no. 25-26, pp. 5962-5969, 2009, doi: 10.1016/j.ijheatmasstransfer.2009.04.038, Available: <https://doi.org/10.1016/j.ijheatmasstransfer.2009.04.038>
- 33 S. S. Das, J.P. Panda and, S.R. Biswal, "Magnetohydrodynamic steady free convective flow and mass transfer in a rotating elastic-viscous fluid past an infinite vertical porous flat plate with constant suction", *AMSE J. Modelling, Measurement and Control, B*, vol. 78, No. 2 , pp. 01-19, 2009.
- 34 S. S. Das and J.P. Panda, "MHD free convection flow of a particulate suspension past an infinite porous inclined flat plate with heat absorption", *AMSE J. Modelling, Measurement and Control, B*, vol. 78, No. 3, pp. 20-31, 2009.
- 35 S. S. Das, J.P. Panda and A. B. Pattnaik, "Effect of free convection and mass transfer on MHD flow of a rotating elastico-viscous fluid past an infinite vertical porous plate through a porous medium with constant suction and heat flux , *Indian J. of Science and Technology* , vol. 2, no. 9, pp. 32-37, 2009, doi: 10.17485/ijst/2009/v2i9, Available: <https://doi.org/10.17485/ijst/2009/v2i9.2>
- 36 S. N. Sahoo, J.P. Panda and G. C. Dash , "Hydromagnetic oscillatory flow and heat transfer of a viscous liquid past a vertical porous plate in a rotating medium", *Indian J. of Science and Technology*, vol. 3, no. 7, pp. 817-821, 2010, doi: 10.17485/ijst/2010/v3i7.15, Available: <https://doi.org/10.17485/ijst/2010/v3i7.15>
- 37 J.P. Panda, N. Dash and G. C. Dash , "Heat and mass transfer in MHD flow of viscous fluid past a vertical plate under oscillatory suction velocity with heat source", *AMSE J. Modelling, Measurement and Control, B*, vol. 79, no. 1-2, pp. 52-65, 2010.
- 38 J.P. Panda, N. Dash and G. C. Dash, "Three dimensional MHD free convective flow with heat and mass transfer through a porous medium with periodic permeability", *AMSE J. Modelling, Measurement and Control, B*, vol. 80, no.1, pp. 01-17, 2011.
- 39 J.P. Panda, N. Dash and G. C. Dash, "Hydro magnetic flow and heat-transfer through porous medium of elastic-viscous fluid over a porous plate in slip flow regime", *AMSE J. Modelling, Measurement and Control, B*, vol. 80, no.2, pp. 71-87, 2011.
- 40 S. N. Sahoo, J.P. Panda and G. C. Dash, "Unsteady two dimensional MHD flow and heat transfer of an elastic-viscous liquid past an infinite hot vertical porous surface bounded by porous medium with source/sink", *AMSE J. Modelling, Measurement and Control, B*, vol. 80, no.2 , pp. 26-42, 2011.
- 41 S. N. Sahoo, J.P. Panda and G. C. Dash , "MHD convective boundary layer flow and heat transfer past a stretching porous wall embedded in a porous medium", *Journal of Energy Heat and Mass Transfer*, vol. 33, pp. 131-142, 2011.

- 42 J.P. Panda, N. Dash and G. C. Dash, “Heat and mass transfer on MFD flow through porous media over an accelerating surface in presence of suction and blowing”, *Journal of Engineering Thermophysics*, vol. 21(2), pp. 119-130, 2012, doi: 10.1134/S1810232812020038,
Available: <https://doi.org/10.1134/S1810232812020038>
- 43 S. N. Sahoo, J.P. Panda and G. C. Dash , “The MHD mixed convection stagnation point flow and heat transfer in a porous medium”, *Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci.*, vol. 83(4), pp. 371-381, Oct. 2013, doi: 10.1007/s40010-013-0100-x,
Available: <https://doi.org/10.1007/s40010-013-0100-x>

Conference Publication

1. L Panigrahi, J.P. Panda, “Effects of Radiation on MHD Flow with Induced Magnetic Field”, *New Trends in Applied Analysis and Computational Mathematics: Proceedings of Int. Conf. on Advances in Mathematics and Computing*, pp.107-118, 2021.
2. J. P.Panda, “Effect of thermal radiation on unsteady magneto-hydrodynamic free convective flow in vertical channel in porous medium”, *Computational Intelligence in Data Mining- Volume 3: Proceedings of the International Conference on CIDM, 20-21 December 2014*

Sponsored Project

1. Development of real time autonomous intelligent system based Simulator and Autonomous under water Vehicles for inspection of Dams, **SERB SURE Grant (DST, Govt. of India)**

Ph.D. GUIDANCE

Sl. No.	Name of Scholar	Title of Ph.D. Thesis	Date of Ph.D. awarded	University
1.	Amit Bikram Pattnaik	Steady and unsteady flows of Newtonian and non-Newtonian Fluids	29.12.2005	Utkal University, Bhubaneswar
2.	Mayadhar Panda	Studies on the flow behaviour of Newtonian and non-Newtonian Fluids	16.10.2007	Utkal University, Bhubaneswar
3.	Narayan Dash	Theoretical studies on some problems of Newtonian and non-Newtonian Flow and Heat Transfer	07.06.2011	Utkal University, Bhubaneswar
4.	Sachidananda Sahoo	Theoretical Investigation on the Flow of conducting and non- conducting fluids	16.10.2012	Utkal University, Bhubaneswar
5	Jiten Kumar Mohapatra	Some problems on MHD flow with Heat Transfer in Newtonian and non-Newtonian Fluids	27.3.2015	Fakir Mohan University, Balasore
6	Dillip Kumar Bhukta	Studies of Some Flow Problems of Newtonian and non-Newtonian Fluids	26.10.2017	Siksha ‘O’ Anusandhan University, Bhubneswar
7	Nrusingh Charan Ojha	Studies of some problems in porous medium	26.10.2018	Fakir Mohan University , Balasore
8	Lipika Panigrahi	Studies of Some Flow Problems of Viscous and Visco-elastic Fluids	26.08.2022	VSSUT, Burla
9	Manasi Mishra	Studies of some MHD Flows and Heat Transfer Problem in Porous medium	11.10.2023	VSSUT, Burla