Document Reference Number

UoN/AA-001/FORM-GUI/V1/2020

CURRICULUM VITAE



Position/Designation: _Assistant Professor_____

Department: ____Department of Mathematical and Physical Sciences_____

College: __College of Arts and Sciences_____

University of Nizwa, Sultanate of Oman

Personal Information						
Name: Dr. Dhananjay Yadav						
Marital Status: Married						
Email Address: dhananjay@unizwa.edu.om						
Contact Numbers: 25446910						
Academi	c Qualificat	tions			T T	
Sr. No.	Degree	Major Subject	Univ./Board	Year	Division	
1.	Ph.D.	Mathematics	Indian Institute of Technology	2013	Awarded	
			Roorkee (IITR), India			
2.	Pre-	Mathematics	Indian Institute of Technology	2009-2010	Completed	
	Ph.D.		Roorkee (IITR) , India		(80%)	
	Courses					
3.	GATE	Mathematics	MHRD, Gov. of India	2009	Awarded	
4.	M.Sc.	Mathematics	DDU Gorakhpur University, India	2007	I st (82%)	
5.	B.Sc.	Math, Physics,	DDU Gorakhpur University, India	2005	l st	
		Chemistry				
1						

Teaching	Teaching Activities, Current / Previous Experience						
A1: Teaching/Research Experience :							
Sr. No.	Name of the Institute	Designation	Period				
			From	То			
1.	University of Nizwa, Oman	Assistant Professor	Oct, 2017	Till Date			
2.	Athabasca University Canad a	Senior Post Doc. Fellow	Aug, 2016	Sept, 2017			
3.	Yonsei University, Seoul, South	Senior Post Doc. Fellow	May, 2014	January,			
	Korea			2016			
4.	Jeju National University, Jeju,	Post Doc. Fellow	Sept, 2013	April, 2014			
	South Korea						
5.	Mangalayatan University Aligarh,	Assistant Professor	March,	Sept, 2013			
	India		2013				
6.	Indian Institute of Technology	Teaching Assistantship	Jan, 2010	Feb, 2013			
	Roorkee (IITR), India						

A2: Teaching Activities:

A2.1.: Courses Taught at the University of Nizwa:

No.	Course Code	Course Name	Credit Hours
1.	MATH116	Precalculus	4
2.	MATH-211	Calculus-I	4
3.	MATH-365	Linear Algebra-II	3
4.	MATH-312	Differential Equation for Engineers	3
5.	MATH354	Numerical Analysis	3
6.	MATH145	Linear Algebra-I	3
7.	MATH-228	Mathematics for Teacher -I	3
8.	MATH-256	Mathematics for Teacher -2	3

A2.2.: Courses Taught at Outside of the University of Nizwa

No.	Course Code	Course Name	Credit Hours
1.	MA101	Applied Mathematics-I	4
2.	BMA-101	Linear Algebra	4
3.	MA401	Numerical Technique	4

A3.: Students Evaluation:

In last 2 years at university of Nizwa, the average student's instructor evaluation was more than 82 while, the overall student's instructor evaluation was approximately 80.

A4.: Project Supervision

1. Manal Saed Khalfan Al Naqhusi (ID: 020504583), Title: Impact of temperature dependence

viscosity on the convective instability and heat transport in heat generation porous enclosures saturated with viscoelastic fluid

- Ekhlas Nasser Abdullah Al Suleimani (Id: 12958316), Maryam Rashid Salim Al Hatmi (Id: 18914587), Title: Finite Difference Solution of Ordinary and Partial Differential Equations
- Hanin Khalid Saleh Al Salmani(Id: 20210493), AaishaSaleem Nasser Al Saadi(Id: 19378766), AmalHamdanHumaidAlAmri (Id: 12616339), Maryam Moosa Nasser Al Busaidi (Id: 12817813), Title: Numerical Methods for Solving a System of Linear Equations and Its Application
- Maimouna Salim Mohammed Al Siyabi-Id No: 09946591, Amna Saleh Salim Al Rahbi-Id No: 19482031, Salma Khalid Yaqoob Al-Nadhairi-Id No: 14225152, Maryam Nasser Masaaod Al Subhi-Id No: 09692056, Influence of chemical reaction and internal heating on the double

diffusive convective motion in porous enclosures soaked with non-Newtonian fluid

Research Activities

(includes but not limited to research interests, conference attendance, conference presentations and publications, refereed journal, articles ,books, ect.)

Research interests: Fluid Mechanics, Hydrodynamic and Hydromagnetic Stability, Nanofluids, Fluid flow in Porous Media, CO₂ capture, storage and oil recovery, Computational sustainability and environmental analytics, Numerical Simulations

Conference presentations:

- 1. Delivered a Seminar on "Soret-Driven Nanofluids Convection" University of Nizwa, 15/11/2018
- 2. Participated and presented a paper in the "Asian Symposium on Computational Heat Transfer and Fluid Flow (*ASCHT2015*), Busan, South Korea.
- **3.** Participated and presented a paper in the "International Conference on Mechanical and Aerospace Engineering (ICMAE 2011)", Bangkok, Thailand during July 29-31, 2011.
- **4.** Participated and presented a paper in the "*IEEE International Conference on Engineering Education: Innovative Practices and Future Trends (AICERA 2012)*", Amal Jyothi College of Engineering, Kanjirappally, Kerala, India during July 19-21, 2012.
- 5. Delivered a lecture on "Matlab & Mathematica" in Mathematical Colloquium Department of Mathematics Indian Institute of Technology Roorkee April 21-22, 2012.

Conference attendance:

- 1. Attended and work as volunteer in the "International Conference on Soft Computing for Problem Solving (SocProS 2011")", Indian Institute of Technology Roorkee during December 20-22, 2011.
- 2. Attended and work as volunteer in the *"International Conference on Advances in Modeling, Optimization and Computing (AMOC-2011)"*, Indian Institute of Technology Roorkee December 05-07, 2011.
- **3.** Participated in one week workshop on *"Scientific Computing Theory & Practices (SCTP-2012)"*, Department of Applied Mathematics, Gurukula Kangri Vishwavidyalaya, Haridwar October 08-13, 2012.
- Participated in workshop on "Web of Science (Science Citation Index) & SciFinder Scholar (Chemical Abstracts)", Mahatma Gandhi Central Library, Indian Institute of Technology Roorkee June 23rd, 2011.

Publications:

<u>Books</u>

1. Dhananjay Yadav: 2014, Hydrodynamic and Hydromagnetic Instability in Nanofluids, Lambert Academic Publishing, Germany. ISBN-13: 978-3659592010

Selected Published Papers (2011-2022)

<u>2022</u>

- Dhananjay Yadav, M. Al-Siyabi, M.K. Awasthi, S. Al-Nadhairi, A. Al-Rahbi, M. Al-Subhi, R. Ragoju, K. Bhattacharyya, "Chemical Reaction and Internal Heating Effects on the Double Diffusive Convection in Porous Membrane Enclosures Soaked with Maxwell Fluid," Membranes, vol. 12, no. 3, p. 338, 2022.
- **3.** Dhananjay Yadav, M.K. Awasthi, M. Al-Siyabi, S. Al-Nadhairi, A. Al-Rahbi, M. Al-Subhi, R. Ragoju, K. Bhattacharyya., "Double diffusive convective motion in a reactive porous medium layer saturated by a non-Newtonian Kuvshiniski fluid," Physics of Fluids, vol. 34, no. 2, p. 024104, 2022.
- **4.** Dhananjay Yadav, "Effect of electric field on the onset of Jeffery fluid convection in a heat-generating porous medium layer," Pramana, vol. 96, no. 1, pp. 1-8, 2022.
- **5.** Dhananjay Yadav, "Thermal non-equilibrium effects on the instability mechanism in a non-Newtonian Jeffery fluid saturated porous layer," Journal of Porous Media, vol. 25, no. 2, pp. 1-12, 2022.
- **6.** S. Shekhar, R. Ragoju, and **Dhananjay Yadav**, "The effect of variable gravity on rotating Rayleigh— Bénard convection in a sparsely packed porous layer," Heat Transfer, 2022. https://doi.org/10.1002/htj.22495
- **7. Dhananjay Yadav**, Mukesh Kumar Awasthi, U. S. Mahabaleshwar, Krishnendu Bhattacharyya, Numerical Treatment on the Convective Instability in a Jeffrey Fluid Soaked Permeable Layer with Through-Flow, Mathematical Modeling for Intelligent Systems Theory, Methods, and Simulation, CRC Press, Taylor & Francis Group, 2022.

<u>2021</u>

- **8.** R. Chand, **Dhananjay Yadav**, K. Bhattacharyya, and M. K. Awasthi, "Thermal convection in a layer of micropolar nanofluid," Asia-Pacific Journal of Chemical Engineering, vol. 16, no. 5, p. e2681, 2021.
- **9.** Dhananjay Yadav, A. Mohamad, and G. Rana, "Effect of Throughflow on the Convective Instabilities in an Anisotropic Porous Medium Layer with Inconstant Gravity," Journal of Applied and Computational Mechanics, vol. 7, no. 4, pp. 1964-1972, 2021.
- **10.** Dhananjay Yadav, "Electric field effect on the onset of Jeffery fluid convection in a heat generating porous medium layer," Pramana Journal of Physics, 2021.
- **11. Dhananjay Yadav**, Y.-M. Chu, and Z. Li, "Examination of the nanofluid convective instability of vertical constant throughflow in a porous medium layer with variable gravity," Applied Nanoscience, pp. 1-14, 2021.
- **12.** Dhananjay Yadav, S. Haider, S. Khan, S. Khan, and M. M. Selim, "Hybrid nanomaterial and instability analysis of convective flow in permeable media," Applied Nanoscience, pp. 1-15, 2021.
- **13.** Dhananjay Yadav, "Influence of anisotropy on the Jeffrey fluid convection in a horizontal rotary porous layer," Heat Transfer, vol. 50, no. 5, pp. 4595-4606, 2021.
- **14. Dhananjay Yadav**, U. Mahabaleshwar, A. Wakif, and R. Chand, "Significance of the inconstant viscosity and internal heat generation on the occurrence of Darcy-Brinkman convective motion in a couple-stress fluid saturated porous medium: An analytical solution," International Communications in Heat and Mass Transfer, vol. 122, p. 105165, 2021.

- **15.** Dhananjay Yadav, A. A. Mohamad, and M. K. Awasthi, "The Horton–Rogers–Lapwood problem in a Jeffrey fluid influenced by a vertical magnetic field," Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, vol. 235, no. 6, pp. 2119-2128, 2021.
- **16.** A. Singha, G. Seth, K. Bhattacharyya, **Dhananjay Yadav**, A. K. Verma, and A. K. Gautam, "Soret and Dufour Effects on Hydromagnetic Flow of H2O-Based Nanofluids Induced by an Exponentially Expanding Sheet Saturated in a Non-Darcian Porous Medium," Journal of Nanofluids, vol. 10, no. 4, pp. 506-517, 2021.
- **17. Dhananjay Yadav,** and J. Wang, "An improved UK-DNDC model for evaluations of soil temperature and nitrous oxide emissions from Canadian agriculture," Plant and Soil, vol. 469, no. 1, pp. 15-37, 2021.
- **18.** M. K. Awasthi, A. K. Shukla, and **Dhananjay Yadav**, "Rayleigh instability of power-law viscoelastic liquid with heat and mass transfer," International Communications in Heat and Mass Transfer, vol. 129, p. 105657, 2021.

<u>2020</u>

- **19. Dhananjay Yadav, M. Manal, "**Influence of temperature dependent viscosity and internal heating on the onset of convection in porous enclosures saturated with viscoelastic fluid", *Asia-Pacific Journal of Chemical Engineering*, 15, e2514, 2020. https://doi.org/10.1002/apj.2514
- **20.** Dhananjay Yadav, "Effects of rotation and varying gravity on the onset of convection in a porous medium layer: A numerical study," World Journal of Engineering, vol. 17, no. 6, pp. 785-793, 2020.
- **21. Dhananjay Yadav,** "Numerical examination of the thermal instability in an anisotropic porous medium layer subjected to rotation and variable gravity field," Special Topics Rev. Porous Media, vol. 11, no. 4, pp. 395-407, 2020-07-30 2020, doi: 10.1615/SpecialTopicsRevPorousMedia.2020031484.
- **22.** Dhananjay Yadav, "Numerical solution of the onset of Buoyancy-driven nanofluid convective motion in an anisotropic porous medium layer with variable gravity and internal heating," Heat Transfer—Asian Research, vol. 49, no. 3, pp. 1170-1191, 2020.
- **23.** Dhananjay Yadav, "The density-driven nanofluid convection in an anisotropic porous medium layer with rotation and variable gravity field: A numerical investigation," Journal of Applied and Computational Mechanics, vol. 6, no. 3, pp. 699-712, 2020, doi: 10.22055/jacm.2019.31137.1833.
- **24.** Dhananjay Yadav, "The effect of viscosity and Darcy number on the start of convective motion in a rotating porous medium layer saturated by a couple-stress fluid," Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, p. 0954406220942551, 2020.
- **25.** Dhananjay Yadav, "The onset of Darcy-Brinkman convection in a porous medium layer with vertical throughflow and variable gravity field effects," Heat Transfer—Asian Research, vol. 49, no. 5, pp. 3161-3173, 2020, doi: 10.1002/htj.21767.
- **26.** H. Zuo, Z. Salahshoor, **Dhananjay Yadav**, M. R. Hajizadeh, and B. X. Vuong, "Investigation of thermal treatment of hybrid nanoparticles in a domain with different permeabilities," Journal of Thermal Analysis and Calorimetry, 2020/06/01 2020, doi: 10.1007/s10973-020-09824-3.
- **27. Dhananjay Yadav,** "The Onset of Convective Activity in an Anisotropic Porous Medium Layer with Internal Heating and Inconsistent Gravity Effects," Revista Cubana de Física, vol. 37, no. 1, pp. 24-33, 2020.
- **28.** Y.-M. Chu, **Dhananjay Yadav**, A. Shafee, Z. Li, and Q.-V. Bach, "Influence of wavy enclosure and nanoparticles on heat release rate of PCM considering numerical study," Journal of Molecular Liquids, vol. 319, p. 114121, 2020/12/01/ 2020, doi: https://doi.org/10.1016/j.molliq.2020.114121.

<u>2019</u>

- 29. Dhananjay Yadav, "Impact of chemical reaction on the convective heat transport in nanofluid occupying in porous enclosures: A realistic approach," *International Journal of Mechanical Sciences*, vol. 157-158, pp. 357-373, 2019/07/01/ 2019, doi: <u>https://doi.org/10.1016/j.ijmecsci.2019.04.034</u>. (Elsevier publication, IF-4.134, H index-94).
- 30. Dhananjay Yadav, "Numerical Investigation of the Combined Impact of Variable Gravity Field and Throughflow on the Onset of Convective Motion in a Porous Medium layer," International Communications in Heat and Mass Transfer, vol. 108, pp. 104274, 2019. <u>https://doi.org/10.1016/j.icheatmasstransfer.2019.104274</u>. (Elsevier publication, IF-4.127, H index-86).
- **31.** Dhananjay Yadav, "The onset of longitudinal convective rolls in a porous medium saturated by a nanofluid with non-uniform internal heating and chemical reaction," *Journal of Thermal Analysis and Calorimetry*, vol. 135, no. 2, pp. 1107-1117, 2019. (Springer publication, IF-2.471, H index-78).
- **32.** Dhananjay Yadav and J. Wang, "Convective heat transport in a heat generating porous layer saturated by a non-Newtonian nanofluid," *Heat Transfer Engineering*, vol. 40, no. 16, pp. 1363-1382, 2019. (Taylor & Francis publication, IF-1.7, H index-55).
- **33.** Dhananjay Yadav, "The effect of pulsating throughflow on the onset of magneto convection in a layer of nanofluid confined within a Hele-Shaw cell," *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering,* vol. 233, no. 5, pp. 1074–1085, 2019, doi: 10.1177/0954408919836362. (SAGE publication, IF-1.126, H index-27).
- **34.** Dhananjay Yadav, A. Wakif, Z. Boulahia, and R. Sehaqui, "Numerical Examination of the Thermo-Electro-Hydrodynamic Convection in a Horizontal Dielectric Nanofluid Layer Using the Power Series Method," *Journal of Nanofluids,* vol. 8, no. 1, pp. 1-15, 2019. (American Scientific Publishers, H index-08).

<u>2018</u>

- **35.** Dhananjay Yadav, "The Influence of Pulsating Throughflow on the Onset of Electro-Thermo-Convection in a Horizontal Porous Medium Saturated by a Dielectric Nanofluid," *Journal of Applied Fluid Mechanics*, vol. 11, no. 6, pp. 1679-1689, 2018. (RICST publication, IF-0.91, H index-21).
- **36.** Dhananjay Yadav, "Throughflow and Magnetic Field Effects on the Onset of Convection in a Hele Shaw Cell," *Revista Cubana de Física*, vol. 35, no. 2, pp. 108-114, 2018. (Universidad de La Habana publication, H index-04).

1.

<u>2017</u>

- 37. Dhananjay Yadav and J. Wang, "Modelling carbon dioxide emissions from agricultural soils in Canada," Environmental pollution, vol. 230, pp. 1040-1049, 2017. (Elsevier publication, IF-5.7, H index-194).
- Dhananjay Yadav, R. A. Mohamed, J. Lee, and H. H. Cho, "Thermal convection in a Kuvshiniski viscoelastic nanofluid saturated porous layer," *Ain Shams Engineering Journal*, vol. 8, no. 4, pp. 613-621, 2017, doi: <u>https://doi.org/10.1016/j.asej.2015.11.023</u>. (Elsevier publication, IF-3.09, H index-32).
- 39. Dhananjay Yadav, J. Wang, and J. Lee, "Onset of Darcy-Brinkman convection in a rotating porous layer induced by purely internal heating," *Journal of Porous Media*, vol. 20, no. 8, pp. 691-706, 2017. (Begell House Publication, IF-1.49, H index-30).
- **40.** Dhananjay Yadav, "Electrohydrodynamic Instability in a Heat Generating Porous Layer Saturated by a Dielectric Nanofluid," *Journal of Applied Fluid Mechanics*, vol. 10, pp. 763-776, 2017. (RICST

publication, IF-0.91, H index-21).

- **41. Dhananjay Yadav**, "Numerical solution of the onset of natural convection in a rotating nanofluid layer induced by purely internal heating," *International Journal of Applied and Computational Mathematics*, vol. 3, no. 4, pp. 3663-3681, 2017. **(Springer publication)**.
- **42.** R. Chand, G. Rana, and **Dhananjay Yadav**, "Thermal Instability in a Layer of Couple Stress Nanofluid Saturated Porous Medium," *Journal of Theoretical and Applied Mechanics*, vol. 47, no. 1, pp. 69-84, 2017. (Warsaw University of Technology publication, IF-0.88, H index-22).
- **43.** R. Chand, **Dhananjay Yadav**, and G. C. Rana, "Thermal instability of couple-stress nanofluid with vertical rotation in a porous medium," *Journal of Porous Media*, vol. 20, no. 7, pp. 635-648, 2017. **(Begell House Publication, IF-1.49, H index-30).**

<u>2016</u>

- **44. Dhananjay Yadav**, J. Wang, R. Bhargava, J. Lee, and H. H. Cho, "Numerical investigation of the effect of magnetic field on the onset of nanofluid convection," *Applied Thermal Engineering*, vol. 103, pp. 1441-1449, 2016. **(Elsevier publication, IF-4.02, H index-129)**.
- **45.** Dhananjay Yadav, D. Nam, and J. Lee, "The onset of transient Soret-driven MHD convection confined within a Hele-Shaw cell with nanoparticles suspension," *Journal of the Taiwan Institute of Chemical Engineers*, vol. 58, pp. 235-244, 2016. (Elsevier publication, IF-3.83, H index-56).
- **46.** Dhananjay Yadav, R. Mohamed, H. H. Cho, and J. Lee, "Effect of Hall Current on the Onset of MHD Convection in a Porous Medium Layer Saturated by a Nanofluid," *Journal of Applied Fluid Mechanics*, vol. 9, no. 5, 2016. (RICST publication, IF-0.91, H index-21).
- **47. Dhananjay Yadav**, J. Lee, and H. H. Cho, "Electrothermal instability in a porous medium layer saturated by a dielectric nanofluid," *Journal of Applied Fluid Mechanics*, vol. 9, no. 5, pp. 2123-2132, 2016. (RICST publication, IF-0.91, H index-21).
- **48.** R. Chand, G. Rana, and **Dhananjay Yadav**, "Electrothermo convection in a porous medium saturated by nanofluid," *J. Appl. Fluid Mech*, vol. 9, no. 3, pp. 1081-1088, 2016. (RICST publication, IF-0.91, H index-21).
- **49.** Dhananjay Yadav, R. Bhargava, and G. Agrawal, "Erratum to: Thermal instability in a nanofluid layer with a vertical magnetic field," *Journal of Engineering Mathematics*, vol. 100, no. 1, pp. 211-211, 2016. (Springer publication, IF-1.14, H index-44).
- 50. Dhananjay Yadav and J. Lee, "Onset of convection in a nanofluid layer confined within a Hele-Shaw cell," *Journal of Applied Fluid Mechanics*, vol. 9, no. 2, pp. 519-527, 2016. (RICST publication, IF-0.91, H index-21).
- 51. Dhananjay Yadav, D. Lee, H.-H. Cho, and J. Lee, "The onset of double-diffusive nanofluid convection in a rotating porous medium layer with thermal conductivity and viscosity variation: a revised model," *Journal of Porous media*, vol. 19, no. 1, pp. 31-46, 2016. (Begell House Publication, IF-1.49, H index-30).
- **52.** Dhananjay Yadav, G. S. Agrawal, and J. Lee, "Thermal instability in a rotating nanofluid layer: A revised model," *Ain Shams Engineering Journal*, vol. 7, no. 1, pp. 431-440, 2016/03/01/ 2016, doi: https://doi.org/10.1016/j.asej.2015.05.005. (Elsevier publication, IF-3.09, H index-32).
- 53. Dhananjay Yadav, J. Lee, and H. H. Cho, "Throughflow and quadratic drag effects on the onset of convection in a Forchheimer-extended Darcy porous medium layer saturated by a nanofluid," *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, vol. 38, no. 8, pp. 2299-2309, 2016. (Springer publication, IF-1.73, H index-32).

<u>2015</u>

54. Dhananjay Yadav, J. Lee, and H. H. Cho, "Brinkman convection induced by purely internal heating in a rotating porous medium layer saturated by a nanofluid," *Powder Technology*, vol. 286, pp. 592-601, 2015. (Elsevier publication, IF-3.41, H index-119).

- **55.** Dhananjay Yadav, C. Kim, J. Lee, and H. H. Cho, "Influence of magnetic field on the onset of nanofluid convection induced by purely internal heating," *Computers & Fluids,* vol. 121, pp. 26-36, 2015. (Elsevier publication, IF-2.23, H index-90).
- **56.** Dhananjay Yadav and M. C. Kim, "Linear and non-linear analyses of Soret-driven buoyancy convection in a vertically orientated Hele-Shaw cell with nanoparticles suspension," *Computers & Fluids,* vol. 117, pp. 139-148, 2015. (Elsevier publication, IF-2.23, H index-90).
- **57.** G. C. Rana, R. Chand, and **Dhananjay Yadav**, "The onset of electrohydrodynamic instability of an elastico-viscous Walters'(model B') dielectric fluid layer," *FME Transactions*, vol. 43, no. 2, pp. 154-160, 2015. (Belgrade University publication, H index-16).
- 58. Dhananjay Yadav and J. Lee, "The onset of MHD nanofluid convection with Hall current effect," *The European Physical Journal Plus*, vol. 130, no. 8, p. 162, 2015. (Springer publication, IF-2.6, H index-38).
- **59.** Dhananjay Yadav and J. Lee, "The effect of local thermal non-equilibrium on the onset of Brinkman convection in a nanofluid saturated rotating porous layer," *Journal of Nanofluids,* vol. 4, no. 3, pp. 335-342, 2015. (American Scientific Publishers, H index-08).
- **60.** R. Chand, **Dhananjay Yadav**, and G. Rana, "Electrothermo convection in a horizontal layer of rotating nanofluid," *International Journal of Nanoparticles*, vol. 8, no. 3-4, pp. 241-261, 2015. **(Inderscience Publishers, H index-12).**
- 61. J. Umavathi, Dhananjay Yadav, and M. B. Mohite, "Linear and nonlinear stability analyses of double-diffusive convection in a porous medium layer saturated in a Maxwell nanofluid with variable viscosity and conductivity," *Elixir Mech Eng*, vol. 79, pp. 30407-26, 2015. (Elixir publication, PIF-6.86).
- **62.** Dhananjay Yadav, R. Srivastava, and J. Lee, "Numerical Simulation of Vortex Shedding Past a Single Cylinder Confined in a Channel," *Fluid Mechanics,* vol. 1, no. 1, pp. 1-4, 2015. (Science Publishing Group.
- **63.** Dhananjay Yadav and M. Kim, "The onset of transient soret-driven buoyancy convection in nanoparticle suspensions with particle-concentration-dependent viscosity in a porous medium," *Journal of Porous Media*, vol. 18, no. 4, pp. 369-378 2015. (Begell House Publication, IF-1.49, H index-30).

<u>2014</u>

- **64.** Dhananjay Yadav, R. Bhargava, G. S. Agrawal, N. Yadav, J. Lee, and M. C. Kim, "Thermal instability in a rotating porous layer saturated by a non-Newtonian nanofluid with thermal conductivity and viscosity variation," *Microfluidics and Nanofluidics*, vol. 16, no. 1-2, pp. 425-440, 2014. (Springer publication, IF-2.4, H index-75).
- **65.** Dhananjay Yadav and M. Kim, "The effect of rotation on the onset of transient Soret-driven buoyancy convection in a porous layer saturated by a nanofluid," *Microfluidics and nanofluidics,* vol. 17, no. 6, pp. 1085-1093, 2014. (Springer publication, IF-2.4, H index-75).
- **66.** C. Singh, **Dhananjay Yadav**, and J. Lee, "Reader comprehension ranking by monitoring eye gaze using eye tracker," *International Journal of Intelligent Systems Technologies and Applications*, vol. 13, no. 4, pp. 294-307, 2014. (Inderscience Publishers, H index-15).
- **67.** C. Singh and Dhananjay Yadav, "User ranking by monitoring eye gaze using eye tracker," *Advances in Intelligent Systems and Computing*, 2014, pp. 235-246. (Springer publication, H index-25).
- **68.** M. Awasthi, **Dhananjay Yadav**, and G. Agrawal, "Viscous potential flow analysis of electrohydrodynamic Rayleigh-Taylor instability," *Journal of Applied Fluid Mechanics*, vol. 7, no. 2, pp. 209-216, 2014. (**RICST publication, IF-0.91, H index-21**).
- **69.** M. C. Kim and **Dhananjay Yadav**, "Linear and nonlinear analyses of the onset of buoyancy-induced instability in an unbounded porous medium saturated by miscible fluids," *Transport in porous media*, vol. 104, no. 2, pp. 407-433, 2014. **(Springer publication, IF-1.99, H index-75)**.
- 70. Dhananjay Yadav, R. Bhargava, G. S. Agrawal, G. S. Hwang, J. Lee, and M. C. Kim,

"Magneto-convection in a rotating layer of nanofluid," *Asia-Pacific Journal of Chemical Engineering,* vol. 9, no. 5, pp. 663-677, 2014. (Wiley-Blackwell publication, IF-1.29, H index-28).

71. Dhananjay Yadav and M. Kim, "Theoretical and numerical analyses on the onset and growth of convective instabilities in a horizontal anisotropic porous medium," *Journal of Porous Media*, vol. 17, no. 12, pp. 1061-1074, 2014. (Begell House Publication, IF-1.49, H index-30).

<u>2013</u>

- **72.** Dhananjay Yadav, R. Bhargava, and G. Agrawal, "Numerical solution of a thermal instability problem in a rotating nanofluid layer," *International Journal of Heat and Mass Transfer,* vol. 63, pp. 313-322, 2013. (Elsevier publication, IF-4.34, H index-177).
- **73.** Dhananjay Yadav, G. Agrawal, and R. Bhargava, "Onset of double-diffusive nanofluid convection in a layer of saturated porous medium with thermal conductivity and viscosity variation," *Journal of Porous Media*, vol. 16, no. 2, pp. 105-121, 2013. (Begell House Publication, IF-1.49, H index-30).
- 74. Dhananjay Yadav, R. Bhargava, and G. Agrawal, "Thermal instability in a nanofluid layer with a vertical magnetic field," *Journal of Engineering Mathematics*, vol. 80, no. 1, pp. 147-164, 2013. (Springer publication, IF-1.14, H index-44).

<u>2012</u>

- **75.** Dhananjay Yadav, R. Bhargava, and G. S. Agrawal, "Boundary and internal heat source effects on the onset of Darcy–Brinkman convection in a porous layer saturated by nanofluid," *International Journal of Thermal Sciences*, vol. 60, pp. 244-254, 2012. (Elsevier publication, IF-3.48, H index-100).
- **76.** Dhananjay Yadav, G. Agrawal, and R. Bhargava, "Effect of magnetic field on the Rayleigh-Bénard convection in a nanofluid layer: Rigidrigid boundaries," *IEEE*, 2012, pp. 1-6. (IEEE Publishers).
- **77.** Dhananjay Yadav, G. Agrawal, and R. Bhargava, "The onset of convection in a binary nanofluid saturated porous layer," *International Journal of Theoretical and Applied Multiscale Mechanics,* vol. 2, no. 3, pp. 198-224, 2012. (Inderscience Publishers).
- **78.** Dhananjay Yadav, G. Agrawal and R. Bhargava, "Effect of internal heat source on the onset of convection in a nanofluid layer," in *Applied Mechanics and Materials*, 2012, vol. 110: Trans Tech Publ, pp. 1827-1832. (Scitec Publications Ltd., H index-28)

<u>2011</u>

- **79.** Dhananjay Yadav, G. Agrawal, and R. Bhargava, "Thermal instability of rotating nanofluid layer," *International Journal of Engineering Science*, vol. 49, no. 11, pp. 1171-1184, 2011. (Elsevier publication, IF-4.34, H index-177).
- **80.** Dhananjay Yadav, G. S. Agrawal, and R. Bhargava, "Rayleigh Benard convection in nanofluid," *Int. J. Appl. Math. Mech*, vol. 7, no. 2, pp. 61-76, 2011.

Faculty Administrative Experience

Chair : Annual Report committee from 2019, University of Nizwa Member: Graduation Project Committee from 2017, University of Nizwa College Representative: Graduation Project Committee from 2021, University of Nizwa Program Coordinator: Diploma in Mathematics from 2017, University of Nizwa Community Services

- ✤ 2019-Present: Editorial Board member of Probe-Chemical and Biochemical Engineering
- ◆ 2019-Present: Editorial board member of ``The Open Mechanical Engineering Journal
- ✤ 2018-Present: Editorial Board member of Fluid Mechanics Journal
- 2019-Present: Editorial Board member of Computational and Applied Mathematics Journal

- Editor in Chief [Guest] in World Journal of Science and Technology.
- Reviewer of International Journal of Heat and Mass Transfer
- Reviewer of Journal of Engineering Mathematics
- Reviewer of Heat Transfer Asian Research
- Reviewer of Heat and Mass Transfer
- Reviewer of Journal of Porous media
- Reviewer of International Journal of thermal Sciences
- Reviewer of Taiwan Institute of Chemical Engineers
- Reviewer of Microfluidics and Nanofluidics
- Reviewer of Journal of Applied Fluid Mechanics
- Reviewer of International Journal of thermal Sciences
- Reviewer of Journal of Engineering Manufacture
- Physics of Fluids
- Scientific Reports
- and Many more journals

Consultancy Activities

✤ Reviewer of Research Grant Proposal submitted in TRC

Membership in Professional Bodies

- Senior Membership of International Association of Computer Science and Information Technology (IACSIT) Member. No. 80341768
- Senior Membership of International Association of Engineers (IAENG) Member. No. 111612
- Senior Membership of Universal Association of Mechanical and Aeronautical Engineers (UAMAE) Member. No. SNM1010001050

Awards and recognitions

- Ranked in Stanford study of the world's top 2% of scientists based on Scopus
- GATE: Qualified (2009)
- Senior Research Fellow, IIT Roorkee, June 2011— Feb 2013
- ✤ Junior Research Fellow, IIT Roorkee, July 2009 June 2011
- CSIR travel grants to attend the 2011 2nd International Conference on Mechanical Aerospace Engineering (ICMAE 2011) Thailand Bangkok.