### **RESUME**

## Dr. Dnyaneshwar M. Surwase

Ph. D. (Mathematics), NET, SET

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### **Personal Information**

Full Name : **Dr. DNYANESHWAR MADHAVRAO SURWASE** 

Academic Qualification : M. Sc. (Mathematics), Ph. D., NET, SET

Date of Birth : 22.05.1984

Gender : Male Category : SC

Permanent Address : Dropadi Nivas, Near ZP School, Hangarga (Sirsi), Tal - Nilanga, Dist - Latur

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#### **Present Position**

Designation : Assistant Professor (CHB)

Institution / University : Maharashtra Mahavidyalaya Nilanga, Dist. Latur

Teaching Experience : 12 Years (Post Graduation, Under Graduation and Diploma in Engineering

and Technology)

Research Experience : 05 Years

Areas of Research : Convective Instability, Heat and Mass Transfer, Fluid Mechanics, Applied

Mathematics

Title of Research : Study of Convective Instability in Nanofluids

Research Publications : 05 (in Scopus/Web of Science Indexed UGC CARE Listed

**International Journals**)

Conferences Attended : 14 (International / National)
Workshop Attended : 10 (International / National)

## **Academic Qualification**

Degree	University/Board	Year	Percentage (%)
Ph. D. (Mathematics)	Gulbarga University, Kalaburagi	2023	Qualified
SET (Mathematical Sciences)	SPPU, Pune	2018	Qualified
NET (Mathematical Sciences)	CSIR - UGC, Delhi	2017	Qualified
M. Sc. (Mathematics)	Dr. B. A. M. U., Aurangabad	2009	61.70
B. Sc. (Maths, Physics, Chem)	SRTMU, Nanded	2005	60.00
H. S. C (Maths, Physics, Chem, Bio)	Latur	2002	48.00
S. S. C. (Maths, Sci., Soc. Sci.)	Latur	2000	52.93

### **Soft Skills**

MATLAB and Simulink, Mathematica, Origin, COMSOL, LaTex, MS - Office, MS - CIT.

## **Teaching Experience**

- 1. **Three years** teaching experience as 'Assistant Professor' in STES's, NBN Sinhgad School of Engineering, Ambegaon (Bk.), Pune, Maharashtra, India.
- 2. **One year** teaching experience as 'Assistant Professor' in STES's, Sinhgad College of Engineering, Vadgaon (Bk.), Pune, Maharashtra, India.
- 3. **Four years** teaching experience as 'Lecturer' in TSSM's, Bhivarabai Sawant College of Engineering and Research, Narhe, Pune, Maharashtra, India.
- 4. **One year** teaching experience as 'Lecturer' in KJ's, Trinity College of Engineering and Research, Kondhwa, Pune, Maharashtra, India.
- 5. **Three years** teaching experience at Department of Post Graduate Studies and Research in Mathematics, Gulbarga University, Kalaburagi, Karnataka, India.

## **Research Experience**

**Five years** research experience at Department of Post Graduate Studies and Research in Mathematics, Gulbarga University, Kalaburagi – 585 106, Karnataka, India

# **Subjects Taught**

- Ordinary Differential Equations (M. Sc., B. Sc.)
- Partial Differential Equations (M. Sc, B. Sc..)
- Complex Analysis (M. Sc., B. Sc.)
- Functional Analysis (M. Sc.)
- Numerical Analysis (M. Sc.)
- ➤ Differential Calculus (B. Sc.)
- ➤ Integral Calculus (B. Sc.)
- Real Analysis (B. Sc.)
- Metric Spaces (B. Sc.)
- ➤ Mechanics (B. Sc.)
- ➤ Integral Transforms (B. Sc.)
- Advanced Mathematics (M. Tech.)
- Engineering Mathematics I, II, III (B. E./B. Tech.)
- ➤ Engineering Mathematics I, II, III (Diploma in Engineering and Technology)

## **Institutional Responsibilities/Activities**

### Academic:

- ➤ Timetable In-charge
- ➤ Remedial Classes Co-Ordinator
- Subject In-charge of Engineering Mathematics I, II, III
- ➤ Member of Paper Setting Committee at Institutional Level
- Examiner/Moderator in Central Assessment Process, Savitribai Phule Pune University, Pune
- > Junior /Senior Supervisor in University Examinations, Savitribai Phule Pune University, Pune

## Administrative:

- ➤ Member of Assessment and Accreditation Committee for NAAC
- Member of admission committee: Counseling, Online Confirmation, Document Verification
- Rector, Boy's Hostel, Sinhgad Technical Education Society, Vadgaon, Pune
- Member of Annual Convocation Committee, Gulbarga University, Kalaburagi, Karnataka, India
- Member of Annual Youth Festival Committee, Gulbarga University, Kalaburagi, Karnataka, India
- ➤ Member of Accommodation Committee, 36<sup>th</sup> Inter University (South-East Zone), Youth Festival hosted by Gulbarga University, Kalaburagi, Karnataka, India

### **Research Publications**

- 1. A paper entitled 'Magneto hydrodynamic Convective Instabilities in Binary Nanofluids with Thermodiffusion for H<sub>2</sub>O-LiBr Absorption Refrigeration System' published in AIP (American Institute of Physics): Conference Proceedings, September, 2023.
- 2. A paper entitled 'Chemically Driven Convective Instabilities in Binary Nanofluids with Thermodiffusions' published in *Journal of Nanofluids*, May, 2023.
- 3. A paper entitled 'Effects of Thermodiffusion on Darcy-Brinkman Convection in a Rotating Binary Nanofluid Saturating a Porous Layer' published in *Canadian Journal of Physics*, March, 2022.
- 4. A paper entitled 'Convective Instability in Binary Nanofluids for Absorption Phenomenon with Cross diffusions and Internal Heat Source' published in *International Journal of Heat and Technology*, August, 2021.
- 5. A paper entitled 'Convective Instability in Binary Nanofluids with an Internal Heat Source in the presence of Thermodiffusion and Nanoparticles' published in *Heat Transfer*, June, 2020.

### **Conferences Attended**

- A paper entitled 'Convective Instabilities in Oldroyd-B Binary Nanofluid saturating a porous layer with Thermodiffusions' presented in the 2<sup>nd</sup> National Conference on Recent Trends in Pure and Applied Mathematics (NCRTPAM 2023) organized by Department of Mathematics, N. E. S. Sciences College, Nanded, Maharashtra, India during 28 29 March, 2023.
- 2. A paper entitled 'Cross Diffusion Effects on Convective Instabilities in a Couple Stress Binary Fluid Saturating a Porous Layer with Internal Source' presented in the 3<sup>rd</sup> International Conference on Recent Trends in Applied and Computational Mathematics (ICRTACM), held at Department of Mathematics, School of Applied Sciences, Reva University, Bangalore, Karnataka, India during 10 11 October, 2022.
- 3. A paper entitled 'Chemically Driven Convective Instabilities in Binary Nanofluids with Thermodiffusions' presented in the *International Conference on Recent Advances in Fluid Mechanics (ICRAFM)* jointly organized by Manipal Institute of Technology and Manipal Academy of Higher Education (MAHE) Manipal, Karnataka India during 04 05 October, 2022.
- 4. A paper entitled 'Effects of Thermodiffusion on Darcy-Brinkman Convection in a Rotating Binary Nanofluid Saturating a Porous Layer' presented in the *International Conference on Innovations in Applied Science and Engineering* held at Dr. Babasaheb Ambedkar National Institute of Technology, Jalandhar, India during 18 - 19 May, 2022.
- 5. A paper entitled 'Magneto hydrodynamic Convective Instabilities in Binary Nanofluids with Thermodiffusion for H<sub>2</sub>O-LiBr Absorption Refrigeration System' presented in the *International*

- Conference on Thermo Fluids and System Design held at BIT, Mesra, Jharkhand, India during 22 23 March. 2022.
- 6. A paper entitled 'Soret Effect on Magnetohydrodynamic Convection in a Binary Nanofluid Saturated with Porous Medium' presented in the 27<sup>th</sup> International Conference on Fluid Mechanics and its Industrial Applications, jointly organized by Department of Mathematics, Kuvempu University, Shivamogga, Karnataka and International Academy of Physical Sciences, Allahabad, India during 26 28 October, 2021.
- 7. A paper entitled 'Soret Driven Convective Instabilities in Binary Nanofluids with a Vertical Magnetic Field' presented in the *National e-Conference on Advances for Innovative Research in Mathematics*, organized by Department of Mathematics and IQAC, Indira Gandhi Kala Mahavidhyalaya, Ralegaon, Yavatmal, India during 28 29 September, 2021.
- 8. A paper entitled 'Effect of Thermodiffusion and Nanoparticles on Darcy-Brinkman Convection in a Binary Nanofluid Saturated Porous Layer' presented in the *National Conference on Mathematical Analysis and its Applications* organized by Department of Mathematics, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India during 23 24 April, 2021.
- 9. A paper entitled 'Soret Driven Double Diffusive Convection in Chemically Reactive Binary Nanofluids under the influence of Silver Nanoparticles' presented in the 2<sup>nd</sup> International Conference on Mathematical Techniques and Applications, organized by Department of Mathematics, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India during 24 26 March, 2021.
- 10. A paper entitled 'Convective Instability in Binary Nanofluids with Cross Diffusions and Internal Heat Source' presented in the *International e-Conference on Nonlinear Analysis and its Applications*, organized by Department of Mathematics, Dayanand Science College, Latur, Maharashtra, India during 27 29 July, 2020.
- 11. A paper entitled 'Effect of Rotation on Convective Instability in Binary Nanofluids for Absorption Phenomenon' presented in KSTA Sponsored International Conference on Physics and Allied Sciences, held at BVB College of Arts, Commerce and Science, Bidar, Karnataka, India during 11 13 March, 2020.
- 12. A paper entitled 'Convective Instability in Binary Nanofluids with an Internal Heat Source in presence of Thermodiffusion and Nanoparticles' presented in the *International Conference on Mathematics and its Applications* held at Department of Mathematics, Bangalore University, Bangalore, India during 28 29 February, 2020.
- 13. A paper entitled 'Soret Effect on the Onset of Convective Instability in Binary Nanofluids with Fast Chemical Reactions' presented in the 64<sup>th</sup> Congress of the Indian Society of Theoretical and Applied Mechanics (An International Conference) held at IIT Bhubaneshwar, Odisha, India during 09 12 December, 2019.

14. A paper entitled 'Soret Effect on the Onset of Convection in Binary Nanofluids with an Internal Heat Source' presented in the *National Conference on 'Analysis and Its Applications* organized by Department of Mathematics, Karnataka University, Dharwad, Karnataka, India under UGC - SAP - DRS - III programme during 01 – 02 March, 2019.

## Workshops Attended

- 1. *International Workshop on Non-Linear Stability of Thermoconvective Flows* organized by Centre for Mathematical Needs, Department of Mathematics, School of Sciences, Christ University (Deemed to be University), Bangalore, India during 09 14 January, 2023.
- 2. International Workshop on MEMS Simulations with COMSOL Multiphysics organized by Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Bangalore in partnership with COMSOL Multiphysics Pvt. Ltd., Bangalore under the initiative of Ministry of Electronics and Information Technology (MeitY), Government of India during 06 07 October, 2022.
- 3. *National Workshop on Research Data Analysis using Statistical Tool SYSTAT 13.2* jointly organized by Gulbarga University, Kalaburagi and Inpixon India Ltd. Hyderabad on 8th September, 2022.
- 4. *National Workshop cum Training Programme on Scientific Computing with MATLAB* organized by Department of Mathematics, DIT University, Dehradun, Uttarakhand, India during 11 15 July, 2022.
- 5. *International Summer School on Mathematical Aspects of Quantum Mechanics* organized by Indo-French Centre for Applied Mathematics (IFCAM) at Department of Mathematics, Indian Institute of Science (IISc), Bangalore, Karnataka, India during 01 12 June, 2022.
- 6. *International workshop on Advances in Applied Mathematics and Computational Methods* held at VIT-AP University, Andhra Pradesh, India during 07 09 January, 2022
- 7. *International Workshop on Advanced Topics in Mathematics* organized by Centre for Applied Mathematics, International Institute of Information Technology, Naya Raipur, Chhattisgarh, India during 08 12 October, 2021.
- 8. *National Workshop on Current Research in Mathematical Sciences* organized by Department of Mathematics, Central University of Karnataka, Kalaburagi, India during 28 30 March, 2019.
- 9. *National Workshop cum Training programme on MATLAB and Simulink* organized by JV Technologies, Chinchwad, Pune, India during 01 30 December, 2018.
- 10. State Level Workshop on 'Computational Fluid Dynamics and its Applications' organized by STES's NBN Sinhgad School of Engineering, Ambegaon (Bk), Pune, Maharashtra, India during 29 30 January, 2018.