

**Name: Dr. Sasi Bhusan Padhi**

**Designation:** Assistant Professor, Department  
of Mathematics  
School of Applied Sciences (SoAS)  
Centurion University of Technology and Management,  
Odisha, India.

**Qualification: M. Sc, Ph.D.**

**Phone no.:** +91-7008225061

**EmailID :** sasi@cutm.ac.in, sasibhusanapadhi@gmail.com

**Scopus-ID-**

57563571800

**Web of Science-ID-**

**OrCid-ID-0000-0001-9610-918X**

**Bidwan-ID- 188262**

### About Me

Dr. Sasi Bhusan Padhi has received his M.Sc. (Mathematics) degree from Berhampur University, Odisha, India in the year of 2001. He has been awarded by the degree of Doctor of Philosophy, in the year of 2021 from Centurion University of technology and Management, Odisha, India on the research topic entitled, “Magnetohydrodynamic Nanofluid Flow Over a Stretchable Melting Surface With Heat Transfer”. His publication list comprises with 01 Patent (Granted/Published), 03 Book Chapters, 10 Journal Articles and 02 Conference Proceedings.

Dr. Padhi has more than 21 years of teaching experience in different Colleges and Universities. Presently he is working as an Assistant Professor in the Department of Mathematics, School of Applied Sciences, Centurion University of Technology and Management, Odisha, (CUTM), India. He has contributed significantly towards the design of curriculum for different courses of Mathematics for B. Tech, B.Sc. and M.Sc. programmes of CUTM.

### AREA OF INTEREST

Complex Analysis, Fluid Dynamics.

### COURSES TAUGHT

#### **For B.Tech Programme:**

Complex Analysis

Differential Equations and Linear Algebra

Discrete Mathematics

Probability and Statistics

Laplace and Fourier Transforms

**For B.Sc/M.Sc Programmes:**

Linear Algebra

Real Analysis

Complex Analysis

Advanced Complex Analysis

Functional Analysis

Measure Theory

Discrete Mathematical Structure

**TEACHING EXPERIENCE** 21 Years

**RESEARCH EXPERIENCE** 06 Year

## AWARDS & HONORS

- Awarded **Gold Medal** for securing highest mark in M. Sc Mathematics during the academic year 1998-2000 at Berhampur University, Odisha, India.

## PUBLICATIONS

### Patents Granted/Published:

1. **Design:** “AI BASED DEVICE FOR ANALYZING FLUID CHARECTERISTICS”, **Design No.:** 429993-001, **Cbr No.:** 216473, **Cbr Date:** 10/09/2024 (INDIA)

### Book Chapters:

1. Goutam Kumar Mahato and **Sasi Bhusan Padhi**, “Basic Concepts and Recent Advancements on Magnetohydrodynamic Flow”, Recent Trends in Computational Mathematics (Edited by Ashok Misra), ISBN: 978-81-948993-1-0, Chapter 3, pp. 33-44, New Delhi Publishers, New Delhi, 2020.
2. **Sasi Bhusan Padhi** and Goutam Kumar Mahato, “MHD Nanofluid Flow and Heat Transfer through Porous Media”, Recent Trends in Computational Mathematics (Edited by Ashok Misra), ISBN: 978-81-948993-1-0, Chapter 5, pp. 57-70, New Delhi Publishers, New Delhi, 2020.
3. **S. B. Padhi** and **G. K. Mahato**, “Flow through Porous Media: Latest Developments”, Recent Research Trends in Management and Social Science (Edited by Dr. Tazyn Rahman, Dr. R. C. Mohanty, Dr. Susanta Kumar Biswal and Dr. SangramKeshari Swain), ISBN: 978-81-941253-2-7, pp. 388 – 392, Empyreal Publishing House, Guwahati, Assam, India, 2020.

### Journals Articles:

1. Goutam Kumar Mahato, **Sasi Bhusan Padhi\***, AshutoshMahato and Jyoti Shankar Mohanta, “Effects of Hall Current and Rotation on Magneto Hydro Dynamic (MHD) Couette Flow of Class-II with Induced Magnetic Field”, Indian Journal of Natural Sciences, Vol.13, Issue 71, 2022 (WoS).
2. Pradipta Muduli, **Sasi Bhusan Padhi\*** and Goutam Kumar Mahato, “Magnetohydrodynamic (MHD) Flow and Heat Transfer: A Brief Review”, Indian Journal of Natural Sciences, Vol.13, Issue 71, 2022 (WoS).
3. **S. B. Padhi** and G. K. Mahato\*, “Recent Advances in Nano-Fluid Flow and Heat Transfer: A Literature Survey”, *ShodhSarita*, Vol. 7, Issue 28, pp. 32-37 (October to December 2020), ISSN: 2348-2397 (UGC CARE).
4. **S. B. Padhi**, S. Ram and G. K. Mahato\*, “Review of the Recent Advances in Nano-Fluid Flow and Heat Transfer through Porous Media”, *ShodhSarita*, Vol. 7, Issue 28, pp. 26-31 (October to December 2020), ISSN: 2348-2397 (UGC CARE).
5. **S. B. Padhi** and G. K. Mahato\*, “Effects of Natural Convection and Heat Absorption on MHD Nano-Fluid Flow past a Stretching Sheet with Melting”, *International Journal of Modern Agriculture*, Vol. 9, No.3, pp. 963-980 (September 2020), ISSN: 2305-7246 (WoS).

6. **S. B. Padhi**, S. Das and G. K. Mahato\*, “Effects of Radiation, Chemical Reaction and Viscous and Joule Dissipations on MHD Nanofluid Flow and Heat Transfer past a Stretching Sheet with Melting”, *International Journal of Modern Agriculture*, Vol. 9, No.3, pp. 936 - 952 (September 2020), ISSN: 2305-7246 (**WoS**).
7. G. K. Mahato, S. S. Rout and **S. B. Padhi\***, “Effects of Heat Absorption and Chemical Reaction on MHD Nanofluid Flow and Heat Transfer past a Stretching Sheet with Melting”, *International Journal of Modern Agriculture*, Vol. 9, No.3, pp. 904 - 919 (September 2020), ISSN: 2305-7246 (**WoS**).
8. **Sasi Bhusan Padhi** and Goutam Kumar Mahato\*, “Enhanced Thermal Conductivity of Nano-Fluids and its Affecting Factors: A Literature Review”, *Indian Journal of Natural Sciences*, Vol.10 (Issue 60), pp. 26294 - 26302 (June 2020), ISSN: 0976 – 0997 (**WoS**).
9. B. K. Mahatha, G. K. Mahato\*, G. P. Gifty and **S. B. Padhi**, “Radiation and Dissipative Effects on MHD Stagnation Point Nano-Fluid Flow past a Stretchable Melting Surface”, *TEST Engineering and Management*, Vol. 83, pp. 14107 – 14117 (2020), ISSN: 0193-4120, (**SCOPUS**).
10. **Sasi Bhusan Padhi** and Tejaswini Pradhan\*, “Recent development in fluid-flow problems: A brief review”, *World Journal of Advanced Research and Reviews*, 20(03), 1597–1601 (2023), ISSN: 2581-9615, (**WJARR**).

#### **Conference Proceedings:**

1. G. K. Mahato, B. K. Mahatha\*, S. Ram, and **S. B. Padhi**, “Radiative and Convective Heat Transfer on MHD Stagnation point Nanofluid Flow past a Stretchable Surface with Melting”, AIP Conference Proceedings, **2435**, 020037-1–020037-19; <https://doi.org/10.1063/5.0083936>, (Published Online: 18 March 2022), ISBN: 978-0-7354-4177-4 (**SCOPUS**).
2. B. K. Mahatha, **S. B. Padhi**, G. K. Mahato\* and S. Ram, “Radiation, Chemical Reaction and Dissipative Effects on MHD Stagnation Point Nano-Fluid Flow Past a Stretchable Melting Surface”, AIP Conference Proceedings, **2435**, 020040-1–020040-19; <https://doi.org/10.1063/5.0083933>, (Published Online: 18 March 2022), ISBN: 978-0-7354-4177-4 (**SCOPUS**).

#### **Workshops/FDP/Short Term Courses**(Invited/Attended)

##### **Attended as a Participant:**

1. Faculty Development Programme on “**Vision 2025 @ Centurion**” organized by IQAC, Centurion University of Technology and Management, Odisha during June 01-07, 2024.
2. AICTE Training and Learning (ATAL) Academy Online FDP on “**FEM/CFD**” held at Lakshmi Narain College of Technology during October 14-18, 2020.
3. TEQIP-III sponsored one week online short term course on “**Multi-Scale Computational Fluid Dynamics: Fundamentals and Applications**” organized by the Department of Mechanical

Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab, India during September 21-25, 2020.

4. Faculty Development Programme on **Computational Methods in Physical and Engineering Sciences** organized by Department of Physics, Centurion University of Technology and Management, Odisha, Bhubaneswar Campus, Odisha during May 9-17, 2018.

**Paper Presentation in Conferences/Seminars:**

1. “Advanced Thermal Conductivity of Nanofluids and its affecting Factors”, *4th International Conference on Management, Sciences, Engineering & Applications (ICMSEA-2019)*, CUTM, Odisha at Paralakhemundi Campus, December 19-21, 2019 (**Oral Presentation**).
2. “MHD Natural Convection Nano-Fluid Flow past a Stretchable Melting Surface With Chemical Reaction”, *International Conference on Complex Analysis and Computational Fluid Dynamics (ICCACFD 2024)*, KIIT University, Bhubaneswar (India), February 16-18, 2024.