



SWAMI VIVEKANANDA UNIVERSITY

# NEWSLETTER

SCHOOL OF BASIC  
SCIENCES

VOL I, ISSUE II

APRIL - JUNE  
2024

# MESSAGE FROM THE HOD

It gives me immense pleasure to connect with you through this edition of our newsletter. The School of Basic Sciences continues to uphold its commitment to academic excellence, research, and innovation. Our dedicated faculty and bright students are making remarkable strides in their respective fields, contributing to the ever-expanding frontiers of knowledge. This year, we have witnessed significant achievements, from groundbreaking research publications to student accomplishments in national and international forums. Our department remains focused on fostering a culture of inquiry, curiosity, and collaboration, ensuring that our students receive the best foundation in the fundamental sciences. I take this opportunity to extend my heartfelt gratitude to our faculty, researchers, and students for their unwavering dedication. Let us continue to strive for excellence and work towards making meaningful contributions to science and society.



Dr. SUBHABRATA  
MONDAL  
HOD and Assistant  
Professor  
School of Basic Sciences

# MESSAGE FROM THE CONVENOR

The School of Basic Sciences is committed to fostering a culture of curiosity, innovation, and academic excellence. As we embark on another exciting semester, I encourage everyone to explore the wonders of science, collaborate across disciplines, and push the boundaries of knowledge. Let's make the most of the opportunities ahead, whether in the lab, classroom, or beyond. Together, we can achieve remarkable milestones and contribute meaningfully to the scientific community. Wishing you all a productive and inspiring term ahead!



Dr. KAZI HASIBUR  
RAHMAN  
Assistant Professor  
School of Basic Sciences

# Editor's Note

## TEACHER EDITOR'S

We would like to thanks to HOD Sir,  
Senior Teachers, Members of  
Editorial team and Contributors of  
articles for their contribution for  
second edition of Newsletter in 2024.

The content of this Newsletter  
includes latest developments in  
Science and interesting Articles.  
It is proud moment for us to be part  
of Editorial team. This Newsletter  
provides a source of inspiration to  
students to find absorbing interest in  
Science.



**Mr. Tanmoy Pal**

Assistant Professor  
School of Basic Sciences



**Dr. Shilpa Maity**

Assistant Professor  
School of Basic Sciences

# Events

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Unified Approach



# MoU signed between Swami Vivekananda University and Mahadevananda Mahavidyalaya

4th April, 2024



Swami Vivekananda University and Mahadevananda Mahavidyalaya have signed a Memorandum of Understanding (MoU) to foster academic and research collaboration in the field of basic sciences. This agreement aims to strengthen ties between the institutions, encouraging joint initiatives such as:

- Collaborative Research Projects: Focus on interdisciplinary research to address contemporary challenges in basic sciences.
- Workshops and Seminars: Jointly organized events to promote knowledge sharing and skill enhancement.
- Resource Sharing: Access to laboratory facilities, libraries, and other academic resources to boost productivity.
- Skill Development: Special training sessions for students and researchers to improve employability and innovation skills.

This partnership is expected to pave the way for significant advancements in basic sciences and contribute to the overall academic development of both institutions.

# Board of Studies Meeting for Physics Department

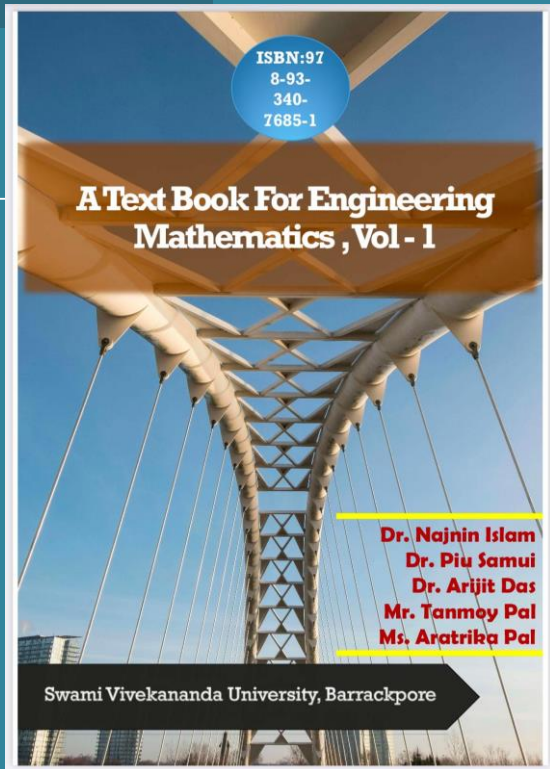
7th May, 2024



The Department of Physics, Swami Vivekananda University, successfully conducted its Board of Studies (BOS) meeting on 7th May, 2024 to discuss key academic developments, curriculum enhancements, and future research directions. Esteemed faculty members, subject experts, and industry professionals participated in the meeting to review and update the syllabus, ensuring it aligns with the latest advancements in the field. Valuable insights and recommendations were shared to strengthen the academic framework and foster innovation in physics education. The department remains committed to providing a dynamic and research-oriented learning environment for students.

# Published Books

## A Text Book For Engineering Mathematics



Featured Book: A Text Book For Engineering Mathematics, Vol-1

ISBN: 978-93-340-7685-1

✍ Author(s): Dr. Najnin Islam

Dr. Piu Samui

Dr. Arijit Das

Mr. Tanmoy Pal

Ms. Aratrika Pal

Published by: Swami Vivekananda University

## DESCRIPTION

"A Textbook for Engineering Mathematics, Vol-1" is a comprehensive guide designed for undergraduate engineering students. This book covers fundamental mathematical concepts essential for engineering disciplines, providing a strong foundation in problem-solving and analytical skills.

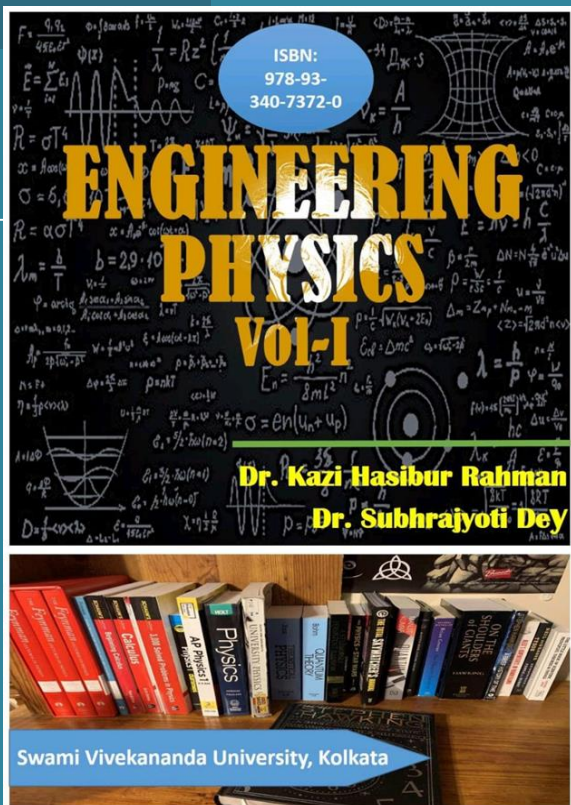
📖 Key Topics Covered:

- ✓ Differential Calculus – Limits, Continuity, Differentiation & Applications
- ✓ Integral Calculus – Definite & Indefinite Integrals, Applications
- ✓ Matrices and Determinants – Linear Equations, Eigenvalues & Eigenvectors
- ✓ Differential Equations – First & Higher-Order Equations, Applications in Engineering
- ✓ Complex Numbers & Vector Calculus – Basics and Engineering Applications



# Published Books

## Engineering Physics



Featured Book: Engineering Physics, Vol-1  
ISBN: 978-93-340-7372-0

✍ Author: Dr. Kazi Hasibur Rahman

Dr. Subhrajyoti Dey

Published by: Swami Vivekananda University

## DESCRIPTION

"Engineering Physics, Vol-1" is a comprehensive textbook designed for undergraduate engineering students, covering fundamental concepts of physics essential for various engineering disciplines. The book bridges the gap between theoretical physics and practical engineering applications, making complex topics easier to understand.

📖 Key Topics Covered:

- ✓ Mechanics & Kinematics – Newtonian Mechanics, Laws of Motion, and Rotational Dynamics
- ✓ Waves & Oscillations – Simple Harmonic Motion, Wave Propagation, and Acoustics
- ✓ Optics & Laser Technology – Interference, Diffraction, and Laser Applications
- ✓ Electromagnetism – Electrostatics, Magnetism, and Maxwell's Equations
- ✓ Modern Physics & Quantum Mechanics – Basics of Quantum Theory and Semiconductor Physics.