

---

# **Transforming Education with Multidisciplinarity**

---

**Editors:**

Dr. Lalit Sachdeva

Dr. Utkarsh Anand

**Copyright © 2025**

*All rights reserved.*

***Periodic Series in Multidisciplinary Studies***

**ISSN:** 3107-5339

***Title of the book:*** *Transforming Education with Multidisciplinary*

**ISBN:** 978-81-987581-0-1

**DOI:** 10.70102/PS/V8

***Volume:*** 8

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the prior written permission of the copyright owner and the publisher.

This book is a part of the "**Periodic Series in Multidisciplinary Studies**", designed to showcase interdisciplinary research and academic contributions from various fields including science, humanities, technology, education, and more.

The goal of this series is to create a platform for both established and emerging scholars to present their findings in a way that transcends traditional academic silos. By promoting interdisciplinary collaboration and integrated thinking, the series contributes to the advancement of knowledge and the resolution of complex global challenges that require multi-perspective approaches. We believe that sharing diverse voices and research methodologies can catalyse meaningful progress across fields and foster a more informed and connected scholarly community.

This volume offers unique insights and case studies contributed by experts and researchers from around the world. Each chapter reflects the authors' individual perspectives and scholarly expertise. Readers are encouraged to engage critically with the content, reflect on the findings, and explore how these insights may apply to their own fields of interest or professional practice.

**Disclaimer:**

The views and opinions expressed in this volume are those of the individual authors and do not necessarily reflect the official policy or position of the publisher or editors. The publisher and editors have made every effort to ensure the accuracy of the information contained in this publication; however, they assume no responsibility for errors or omissions, or for any consequences arising from the use of the information contained herein.

# Preface of the Series

---

In the face of complex global challenges such as climate change, biodiversity loss, and resource depletion, the need for a new educational paradigm is more critical than ever. Traditional disciplinary approaches, while valuable, often fail to provide the integrated solutions necessary for addressing these interconnected issues. As the world becomes increasingly interconnected, a multidisciplinary approach to education is not just beneficial, but essential.

This book, "**Transforming Education with Multidisciplinary**", explores the power of blending knowledge across various fields to create more holistic solutions to the world's most pressing problems. The chapters within this volume highlight the importance of integrating disciplines such as environmental science, geoscience, agriculture, policy, and engineering, demonstrating how this integration can lead to more effective and sustainable outcomes.

Each chapter presents innovative educational models that encourage systems thinking, promote sustainable behaviors, and equip learners with the critical skills needed for navigating complex environmental and societal challenges. From the Geo-Ecological Learning Framework (GELF) to the agriculture-Sustainability Integration Model (ASIM), this book provides practical and evidence-based approaches to transforming education and fostering the interdisciplinary collaboration required for sustainable development.

The work presented in this book underscores the value of place-based learning, experiential education, and collaborative problem-solving, offering new perspectives and methods to prepare future generations to become proactive contributors to the global sustainability agenda.

Through the integration of multiple disciplines, this book advocates for an education system that not only addresses environmental issues but also

enhances the broader goals of sustainable development, social responsibility, and critical thinking. By embracing this multidisciplinary approach, we can empower individuals to make informed decisions and take meaningful actions in shaping a more sustainable and just future.

## **Editor of the Series**

---

**Dr. Lalit Sachdeva,**

Assistant Professor,

Kalinga University,

Naya Raipur, Chhattisgarh, India.

[ku.lalitsachdeva@kalingauniversity.ac.in](mailto:ku.lalitsachdeva@kalingauniversity.ac.in),

<https://orcid.org/0009-0002-2214-282X>

**Dr. Utkarsh Anand,**

Assistant Professor,

Kalinga University,

Naya Raipur, Chhattisgarh, India.

[ku.utkarshanand@kalingauniversity.ac.in](mailto:ku.utkarshanand@kalingauniversity.ac.in)

<https://orcid.org/0009-0007-2124-6666>

# TOC

---

<b>Chapter No.</b>	<b>Title</b>	<b>Page No.</b>
I	<b>Integrating Environmental Education with Multidisciplinary Approaches for Sustainable Learning</b> Dr. Priyanka Singh and Dr. Sonam Dubey	1-8
II	<b>Innovative Methods for Integrating Geoscience and Ecology in Environmental Education with The Geo-Ecological Learning Framework (GELF)</b> Dr. Arup Kumar Halder and Dr. Jagan Mohan	9-16
III	<b>Bridging Agricultural Science and Environmental Sustainability Through the Agriculture-Sustainability Integration Model</b> Dr. Jitesh Mahant and Dr. Pankaj Tiwari	17-23
IV	<b>Fostering Environmental Awareness Through the Environmental Engineering-Policy Integration Model</b> Dr. Ashish Kumar Sahu and Dr. Shilpi Nishant Tanwani	24-33