

Innovations Across Disciplines:

A Collection of Contemporary Research

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Thanks

A handwritten signature in blue ink that reads "Sharda". The signature is fluid and cursive, with a horizontal line underneath the name.

Publisher

Preface

In an era where knowledge transcends traditional boundaries, interdisciplinary research has become the cornerstone of innovation. **Innovations Across Disciplines: A Collection of Contemporary Research** is a testament to this evolving landscape, bringing together pioneering studies from diverse academic fields. This book serves as a platform for scholars, researchers, and practitioners to explore the latest advancements that bridge disciplines and foster collaborative solutions to global challenges.

The compilation includes cutting-edge research in engineering, technology, environmental sciences, and emerging scientific frontiers. By integrating perspectives from multiple domains, it highlights how interdisciplinary approaches can drive innovation, enhance problem-solving capabilities, and contribute to sustainable development. Each chapter provides valuable insights into contemporary research trends, offering both theoretical foundations and practical applications.

This volume is intended to be a valuable resource for academics, industry professionals, and students who seek to expand their understanding of multidisciplinary research. It reflects the collective efforts of researchers dedicated to pushing the boundaries of knowledge and shaping the future of their respective fields.

We extend our deepest gratitude to all contributors for their dedication and insightful work. We also appreciate the unwavering support from Swami Vivekananda University, Kolkata. Special thanks are due to the editorial team and reviewers who ensured the highest academic standards for this publication. We hope this book inspires further collaboration and innovation across disciplines.

We hope that this book serves as a catalyst for further research and innovation, empowering readers to think beyond traditional boundaries and embrace the endless possibilities of transdisciplinary collaboration.

Dr. Ranjan Kumar
Dr. Ashes Banerjee

Acknowledgement

We extend our heartfelt gratitude to Swami Vivekananda University, Kolkata, India, for their unwavering support and encouragement during the creation of **“Innovations Across Disciplines: A Collection of Contemporary Research”**. The university's dedication to fostering education and research has played a pivotal role in shaping the direction and scope of this work. Their commitment to academic excellence has provided an environment where innovation thrives, allowing us to explore and present groundbreaking advancements across multiple disciplines.

We are especially grateful for the collaborative atmosphere, state-of-the-art resources, and inspiration provided by Swami Vivekananda University, Kolkata. Their continuous efforts in promoting interdisciplinary research have been instrumental in bringing together diverse perspectives, enriching the knowledge contained within this volume.

We also extend our deepest appreciation to the esteemed external reviewers for their meticulous evaluation and invaluable feedback. Their expertise and commitment to maintaining the highest scholarly standards have significantly contributed to the academic rigor of this publication.

Finally, we acknowledge the dedication of all contributing authors, researchers, and editorial team members, whose efforts and passion have made this compilation possible. It is our sincere hope that this book serves as a valuable resource for scholars, students, and professionals, reflecting our shared commitment to fostering knowledge, innovation, and academic excellence.

With sincere gratitude.

**Dr. Ranjan Kumar
Dr. Ashes Banerjee**

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