

Editor-in-Chief's Message

Dear Readers,

Welcome to the latest edition of the KEC Journal of Science and Engineering (KJSE), Office of KEC Research and Publication (OKRP), a vital resource for researchers, practitioners, and enthusiasts alike. As an Editor-in-Chief, I am both privileged and honored to oversee a platform dedicated to bridging the gap between theoretical advancements and practical applications in the dynamic field of engineering.

Engineering is at the forefront of progress, shaping the world through innovative technologies and sustainable solutions. From artificial intelligence and structural integrity to nanotechnology, engineering influences nearly every facet of modern life. Our mission is to showcase the vast potential of engineering in addressing global challenges, enhancing quality of life, and inspiring future generations.

Each edition of our journal reflects the dedication and intellectual rigor of our contributors, who constantly push the boundaries of what is possible. Through comprehensive research, thought-provoking reviews, and compelling editorials, we aim to spark meaningful discussions, foster interdisciplinary collaboration, and set new benchmarks for excellence.

As engineers, we shoulder the significant responsibility of creating solutions that are not only groundbreaking but also ethical and inclusive. Our journal is committed to promoting these principles, ensuring that the knowledge we share contributes to advancements that benefit society as a whole.

In this edition, you will find a diverse range of articles that reflect the multifaceted nature of engineering. Our contributors have crafted thoughtful works across various disciplines, including mathematics. Each article embodies the collaborative spirit and intellectual curiosity that define our institution's scholarly pursuits. Our authors have skillfully navigated complex landscapes, offering valuable insights that resonate with both academia and industry.

We are also excited to feature an exclusive section on student projects, highlighting the creativity and ingenuity of our talented engineering students. These initiatives not only demonstrate their technical prowess but also showcase their ability to think critically and collaborate effectively. The passion for learning and the drive for excellence shine through in every contribution, illustrating the immense potential of our student body.

I extend my sincere gratitude to all our faculty advisors, editorial board members, and all contributors who have brought this publication to life. Your unwavering support and active engagement are essential to advancing the journal's mission. As we continue to explore the new horizons, challenge conventions, and innovate, I encourage you to engage with the content, share your feedback, and offer your insights.

Together, let us continue to inspire and motivate one another in our collective pursuit of engineering excellence. I invite you to immerse yourself in the wealth of knowledge within these pages and share this journal with your peers and colleagues. Thank you for being an integral part of our journey toward engineering a brighter future.

Sincerely,

Pratima Pradhan, PhD

Editor-in-Chief

OKRP

April 2025