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Dear Readers, Contributors, and Well-Wishers,

It is with great enthusiasm and pride that I present to you **Volume 2, Issue 1** of the *International Journal on Engineering Technology and Infrastructure Development (InJET-InDev)*. This second volume marks another important step in our ongoing commitment to academic excellence and innovative research in the fields of engineering and infrastructure development. In fact, Lalitpur Engineering College (LEC)'s motto is ***Empowering Academic Excellence and Research Skills***.

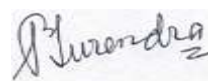
As the Editor-in-Chief and Principal of LEC, I am pleased to witness the growing recognition of *InJET-InDev* as a valuable forum for researchers, practitioners, and academicians. This issue continues our mission of disseminating high-quality, peer-reviewed research that addresses both emerging challenges and practical advancements in engineering technology and infrastructure.

Each article featured in this issue reflects the dedication, expertise, and scholarly rigor of our contributors. I would like to extend my sincere appreciation to all the authors who entrusted us with their work, the reviewers who provided critical insights to uphold the quality of this publication, and the members of the editorial and advisory boards for their steadfast support.

I am also deeply grateful to the LEC family, and our collaborating organizations—Safe Sustainable Travel Nepal (SSTN) and the Society of Transport Engineers Nepal (SOTEN)—for their continued encouragement and partnership. A special note of thanks goes to Er. Hemant Tiwari and Er. Vivek Gupta for their consistent guidance and technical support throughout the process.

Looking ahead, I warmly invite the global academic and professional community to contribute their original research to future issues of *InJET-InDev*. LEC is going to organize 2<sup>nd</sup> International Conference on Engineering Technology and Infrastructure Development “**LEC Conference**”. Please do submit your research works with his LEC Conference as we are planning to publish the presented papers as a special edition of our LEC Journal. Your ongoing engagement is essential to building a vibrant, interdisciplinary knowledge base that can shape the future of engineering and infrastructure development. I encourage you to explore the diverse and insightful content of this issue, and I look forward to your continued support and collaboration in the journey ahead.

Warm regards,



**Prof. Dr. Surendra Bahadur Tamrakar**  
Editor-in-Chief  
Principal, Lalitpur Engineering College

## **Message from Collaborative Partners**

### **Message from Safe & Sustainable Travel Nepal (SSTN)**

It has been a pleasure for me and my team to be associated with the International Journal of Engineering Technology and Infrastructure Development (InJET-InDev) as a collaborator through its inception to the second volume of the publication. The quality and number of papers in this publication highlights the strengths of academics in Nepal. Getting through and continuing the effort towards providing the platform to showcase and publish the academic efforts is itself a laudable stride. Congratulations to the entire LEC team on achieving this huge step.

We recognize the effort and hard work of the researchers breaking through the limited research funding and support and pushing the boundaries of knowledge and skills in Nepal. The fact that good papers are published gives us joy and would like to praise all the researchers whose papers are included in this volume of the publication.

We sincerely hope that more young researchers and institutions are inspired to take on quality research and knowledge generation. The publication and the knowledge it bring among the academic and professional community will guide other scholars, professionals, practitioners and policy makers.

We look forward to continued collaboration and support for the future publications as well.



Vibek Gupta

Chairman

Safe and Sustainable Travel Nepal



### **Message from the Society of Transport Engineers Nepal (SOTEN)**

It is with great pride and enthusiasm that the Society of Transport Engineers Nepal (SOTEN) joins hands as a collaborative partner in the publication of the Journal of Engineering Technology and Infrastructure Development (In-JET-InDev). This initiative marks a significant step toward bridging the gap between research, policy and practice in the fields of engineering, infrastructure and sustainable development, especially in the context of Nepal's development needs.

As SOTEN, we believe that the innovation, knowledge sharing and evidence-based practice are essential to build resilient and system that cater the future transport needs. This journal provides a common platform for academicians, engineers, policymakers and professional to contribute insights that can transform the infrastructure landscape of Nepal.

We are confident that In-JET-InDev will serve not only as repository of knowledge but also as a catalyst for collaboration, capacity building, mutual cooperation and inclusive growth. On behalf of SOTEN, I extend my sincere congratulations to the editorial team, all contributors and college management. I reaffirm our commitment to fostering excellence in transport engineering and engineering infrastructure development through this meaningful partnership.



Hare Ram Shrestha, Ph.D,

President,

Society of Transport Engineers Nepal (SOTEN)



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