

A GLIMPSE OF SUSTAINABLE INNOVATION: FORGING A RESILIENT FUTURE

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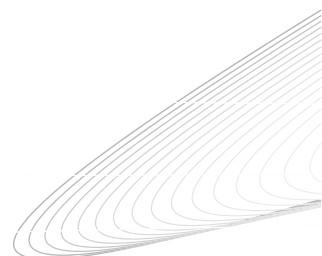
Dear readers,

Aware of your profound interest in the progress and well-being of our region, it is an honor to present you with a new issue of the L'Esprit Ingénieux journal that delves into the wonders of sustainable engineering and its impact on our environment. At a time when the urgent need to preserve our planet becomes more evident, it is essential to explore and disseminate ways in which technical innovation, especially engineering, can converge with environmental protection and social responsibility. This will shape a future that is environmentally responsible and committed to social progress. This edition of our journal provides a global view of the advancement of innovation in various engineering fields, while also emphasizing a strong social and environmental commitment. It is heartening to see that the articles align with the humanistic character of Universidad Santo Tomás. All the authors, in their writings, demonstrate a deep social and environmental commitment. In this issue of the magazine, with five research articles, we will be invited to reflect upon, learn about, and explore technical advancements in civil and environmental engineering, while being critical of the social and economic needs in Colombia.

The first article titled “Tunja, Our Natural Home: A Commitment from All, For All” invites us to embark on a collective journey towards preserving the city of Tunja, Colombia, as a shared home. This article reminds us that each individual plays a fundamental role in safeguarding our natural resources and promoting sustainable practices. From small everyday gestures to community-impact projects, through this reading, we will discover how we can honor our commitment to the city and its environment.

Secondly, the article “From Conventional Water Treatment to Alternative Proposals: The Case of Vereda Pantano de Vargas, Paipa” explores a fascinating case of innovation in water supply in the Vereda Pantano de Vargas, Paipa, Colombia. In a context where challenges related to access to safe and clean water are increasing, the authors demonstrate how creativity can drive effective alternatives in water treatment for human consumption in rural areas of Colombia. The alternative water treatment solutions presented in this case inspire us to question conventional techniques and seek solutions that are economically and technically suited for rural areas.

On the other hand, in the third article titled “Permeable Pavement with Slag,” an interdisciplinary group of researchers highlights the crucial role of infrastructure construction in our pursuit of a sustainable future. Immersing ourselves in this article invites us to discover how permeable pavement technology is transforming the perspective of this type of civil work. By innovatively utilizing slag, the article explores how this innovative solution is harnessing the use of a material considered waste and turning it into a solution for a problem associated with conventional pavement permeability.



The fourth article, “Feasibility Study of Wind Energy in Boyacá,” exemplifies a commitment to seeking cleaner energy sources. Through careful study, the article analyzes how wind power can be transformed into a reliable and sustainable source for the Boyacá department in Colombia. In a time when transitioning to renewable energy sources is essential, this article offers a hopeful perspective on the energy future.

Lastly, the article “Consumerism and Its Environmental Impact” addresses the influence of consumerism on our journey towards sustainability. Through reflective analysis, it explores how everyday consumption choices directly affect the health of our planet. It reflects on how we can modify our habits and adopt a more conscious and responsible approach to consumption, paving the way towards a more balanced and sustainable future.

In L’Esprit Ingénieur, the journal of the Faculty of Civil Engineering at Universidad Santo Tomás Seccional Tunja, we are committed to promoting and disseminating bold and cutting-edge solutions to face the challenges of the 21st century. As you explore these pages, we encourage you to join us in the pursuit of a more sustainable and resilient future.

We extend a warm invitation to our readers, especially students and educators, to read, share, and cite the articles of this edition, as well as to submit their research for future issues of our magazine.

With gratitude for your commitment and enthusiasm for sustainable innovation,