

*Editorial*

This second issue of the journal ESAICA, published by the Engineering Faculty at the University of Santander – UDES, celebrates some excellent achievements such as:

- Two of the five faculty programs were awarded the High Quality rating during the accreditation process, these being Industrial Engineering and Environmental Engineering.
- The University of Santander – UDES, was able to boast obtaining two patents and the lodging of the application for a third during the accreditation process.
- In the region of Santander, the following engineering feats were achieved: The expansion of the Chicamocha National Park with the Acuaparque (water park), the construction of the Eco-park El Santísimo in the municipality of Floridablanca, the completion of the Bucaramanga Reservoir on the Tona River, and the inauguration of the Provincial Viaduct in Bucaramanga which appears on the front cover of the previous number of ESAICA.
- At a national level, the imposing Hydrosogamoso megaproject was completed. The photo of the construction of the fourth tunnel of this project adorns the front cover of the first number of the second issue of the official publication of the UDES Engineering Faculty.

Even so, it is also important to report some not so good news in the second issue of ESAICA. Unfortunately, during the *Convocatoria Nacional para el Reconocimiento y Medición de Grupos de Investigación, Desarrollo Tecnológico y de Innovación y para el Reconocimiento de Investigadores del SNCTeI 2010* (a national vetting process for research), some of the country's engineering faculties' research groups lost their recognition by the national science body, Colciencias, or their standing was lowered considerably.

Despite the above, and while it is the responsibility of the official publication of the UDES Engineering Faculty charged with disseminating knowledge generation in the engineering field to share the work of recognized researchers in the country, ESAICA continues to strive to comply with the internationally recognized editorial quality standards set by Scopus and ISI for publishing scientific articles. This includes bidding the two-year waiting period in order to be included in the national academic index, Publindex, where only 52 national publications (none of them new) out of a list of 544 are included.

In this spirit, Volume 2 n°1 of the journal ESAICA, the Electronic Engineering and Energy Section includes the article, *Harnessing Offshore Energy: Progress and Prospects*, by Martha Navarro, Juan Hernández, Elissa Benedetti and Ángel González, who explore the primary sources of *offshore* energy in Europe and Latin America as valid options for applying these technologies in developing countries like Colombia. In the Software Engineering Section can be found the article *A Solar Photovoltaic Microgrid for the Automation of a Compact Water Purification Plant* by master candidate in Advanced Energy Systems, Otto

Ferney Bayona Peñalosa. The results of his master's thesis are exposed, exploring design tendencies, standardization and operation the aforementioned microgrid in order to meet the energy needs of a small, low-cost water purification plant that was piloted in a representative off-the-grid zone, Barichara (Colombia), using *Homer Microgrid* software. The Finance Engineer, Jhon Fredy Moreno, explains the *determining factors in rural property appraisal processes in Santander (Colombia)*, in the Agro Industrial Engineering Section. This is something that is of great interest in this field. In the Industrial Engineering Section can be found an article on the experience of applying the "cleaner production" concept with healthcare service providers in the Department of Boyacá (Colombia) using a "Sustainable Hospital" methodology. The author, Luz Marina Acevedo Vecino, demonstrates the experience of applying this methodology in the business arena in her article titled "*Sustainable Hospitals: a green strategy for improving competitiveness in health services*". The engineers specializing in environmental geotechniques, Gustavo Adolfo Mantilla Oviedo, Mayra Alejandra Pimiento Gutiérrez and Yudith Helena Delgado Luna contribute to this issue with their research development, analysis and results from a geotechnical evaluation of managing landfill sites made up of waste and rubble as a means of recovering areas plagued by erosion. Their article, *Construction Waste Disposal as an alternative for erosion control on urbanized plateaus*, appears in the Civil Engineering Section. Two articles of great interest are presented in the section on Environmental Engineering. These have to do with managing water resources and handling social conflicts in mining areas. The first is *Climate variability and development of adaptive capacity at the Bocas del Toro archipelago in Panama* by doctors Mercedes Camargo, Ángela Díaz, Alejandro Imbach and Jorge Vargas. The second is *A Discursive Guide to Mediating Conflicts of Interest in Mining Zones* by professors Omar Enrique Suanca Mendoza and María Consuelo Moreno González of the University of Santander. In the last section, Interdisciplinary Field, ESAICA offers an engineering innovations that is closely linked with aesthetics through the article called: *Poetry Review: "Unexpected Hopes"* by Eng. Héctor Hernando Díaz, who expresses his inner poet-engineer while reflecting on his civil engineering and university teaching experience and achievements.

Lastly, the editor wishes to thank the UDES publishing team for their immense editorial support, the peer reviewers, and especially the authors without whose contributions this edition would not be possible. As well, the editor expresses the hope that the first number of the second volume of the ESAICA journal meets the scientific, informational and engineering expectations of the readers in the same way that the first volume did. A special note of thanks goes to Marion Nina Meyer for translating the original pieces into English for the English language version of the journal.

*Consuelo Moreno*