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The creation of the vice principal of research and the quality policy of the “Escuela Colombiana de Carreras Industriales” has allowed work together to make the magazine Tecciencia a disclosure of technical and scientific knowledge of the highest quality, in this process the magazine has achieved the recognition by Colciencias by ranking indexing C, and the linking to the international database academic sources. This indexing has brought a great incentive for our academic and scientific community, manifested in increased interest and dedication to write articles as a product of a lot of research, development and innovation, receiving a large number of papers for publication in this issue.

Also, it was observed that the magazine has transcended to other academic senates, scientific and business communities, nationally and internationally as reflected in the articles that have been submitted for publication, generating more and more institutional commitment in the tecciencia editing.

This issue of the magazine shows substantial improvements with the aim of achieving greater international impact allowing the authors to bring their contributions through international databases around the world; therefore, in this edition of tecciencia are articles published in English language.

It should be noted that we have received excellent works among which, through a rigorous process of arbitration we have selected ten of which are mentioned in the following lines; initially presents the work of the engineers Valentín Molina, Gerardo Ceballos and Hermann Davila, entitled “Electrocardiographic signal Analysis by Dynamic Temporal sequence alignment” in which we presents results in the area of biomedical signal processing.

Also, another research group of the ‘Universidad Distrital’ conform by Jorge Alexander Alarcón, Jairo Eduardo Hortúa and Andrea López G, presented their contribution to the framework of alternative energy, developing a prototype disc type parabolic solar collector for rural areas with high availability of solar resources in Colombia, which have no access to electricity service and/or do not have the financial resources to purchase a stove (electric of gas).

In the Field of mechanical engineering applied to the automotive sector, Daniel Eduardo Villalobos engineers Correa and Garzón Ramírez of the ECCI and Jeisson Cajica Alexander Gómez Gutiérrez and Juan Carlos Ovalle of CESVI company, members of the research group “GIDMyM” of the Escuela Colombiana de Carreras Industriales submitted a work in showing the design and development of a remotely controlled braking mechanism that works by pneumatics their goal is to stop test vehicles in crash test trials, respecting the protocol governing these test by RCAR (Global Research Council for Auto Repair).

For this edition we have received a very interesting work gestated at the University of Salamanca (Spain) made by the researchers Sandra Janet VelascoFlorez, Luis Joyanes Aguilar y Carlos Enrique Montenegro Marin, called “Tools and geographic web services as instruments for territorial management”.

Continuing in the field of engineering applied to information management, Danilo Alfonso Lopez Sarmiento , Bayron Fabio Villanueva Ocampo and Edwin Rivás Trujillo, presented their work on technologies to optimize the process of transmission and interaction of television with the end user called “IPTV: Oriented technologies and protocols for next generation Networks”.

To deepen the analysis of the OFDM modulation technique and performance focused on Digital Radio transmission researchers Marcelo Herrera Martínez and Miguel Perez Pereira of “Universidad de Buenaventura” and “Universidad Distrital” presented their paper: Simulation of the OFDM Modulation technique for purposes of digital radio broadcasting.

As part of the interdisciplinary and collaborative research, researchers Arnoldo Emilio Delgado, William Aperador Chaparro, Jaime Parra Plazas of the “Escuela Colombiana de ingeniería” “Universidad Militar Nueva Granada”, “Universidad Libre” and the “Escuela Colombiana de Carreras Industriales” presented a work of great relevance where comparing two experimental studies to obtain biodiesel from castor oil and sunflower.

In the field of electronic engineering, Engineers John Edwin Vera, Jhon Freddy Bayona, Enrique Jacome Lobo, of the “Escuela Colombiana de
Carreras Industriales’ presents a work in which a detailed analysis for future deployment of virtual systems medical applications, it studies the principle of stability and control for virtual environments tactile design with three degrees of freedom in mobility. In this paper are analyze fundamental parameters for any virtual application: the model, the impedances, stability and control.

Also, engineers Carlos Andres Martinez Alayon, Danilo Lopez, Jhon Jaime Ramirez Ochoa and Ruben Dario Gomez Tovar of the “Universidad Distrital” presented a paper on the evaluation of DiffServ and IntServ performance between two architectures that allow to implement quality of service (QoS) to a given network, highly relevant work currently.

And in the field of biomedical engineering as rector of the “Escuela Colombiana de Carreras Industriales”, and with the aim of promoting research, development and innovation, I have presented a review paper on the subject of ultrasound biomedical technologies, showing the importance of scientific basis in technological developments, this article has been called “Ultrasound applications to medicine Equipment”.

We Hope that the contest of these articles contribute to scientific and technological support to develop New Work.

M.Sc. FERNANDO ARTURO SOLER LÓPEZ
RECTOR