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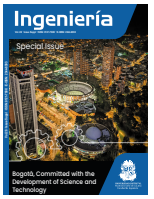

Editorial

Some Data Regarding Scientific Research from Universidad Distrital Francisco José de Caldas in the Scopus Database in 2023

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This issue of the **Ingeniería** journal explores the participation of researchers from the city of Bogotá (Colombia) who were selected by our journal to present their work in different areas of Engineering (Industrial, Electrical, Electronic, Civil, Environmental, Agricultural, and Mechanical Engineering, among others). The main idea of this issue is to disseminate significant contributions aiming to advance scientific knowledge in the fields of Engineering, Science, and Technology from multiple universities in Bogotá, as a window to promote research made in the city around the world.

The **Ingeniería** journal is part of the **Department of Engineering** of Universidad Distrital Francisco José de Caldas (UDFJC), which is a public university located in Bogotá. As one of its foundational purposes, this University dedicates many human and economic resources to promote scientific research in the city, with free worldwide access. To demonstrate the importance of UDFJC in the Colombian research context and its considerable efforts to promote science and technology, this editorial note presents some important data regarding scientific research, taking the Scopus database as the source.

Exploring the Scopus database allows observing some of the leading indicators of UDFJC in terms of high-impact research with international visibility (note that these data were compiled until 02/27/2023) (1). In the last 20 years (from 2004 to 2023), UDFJC has published about 2,982 documents, which corresponds to the 99,5327 % of the University's research history in this database (*i.e.*, 2.996 documents). Fig. 1 shows the evolution of the research published during the last two decades in UDFJC. The behavior of the publication rate shows that:

i. From 2012 to the present day, researchers with institutional affiliation to UDFJC have published more than 100 papers every year, reaching a peak in 2021, with more than 400 documents.

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ii. The data for 2023 show that, in the first two months of the year, 46 documents were published in the Scopus database, which implies that, at the end of the year, UDFJC may report more than 276 published papers.

iii. The annual increase in publications in the Scopus database shows that researchers from UDFJC have understood the importance of publishing their research and discoveries in international databases, which can attract potential readers and citations at a global level, contributing to the discussion on science and technology from Bogotá to the world.

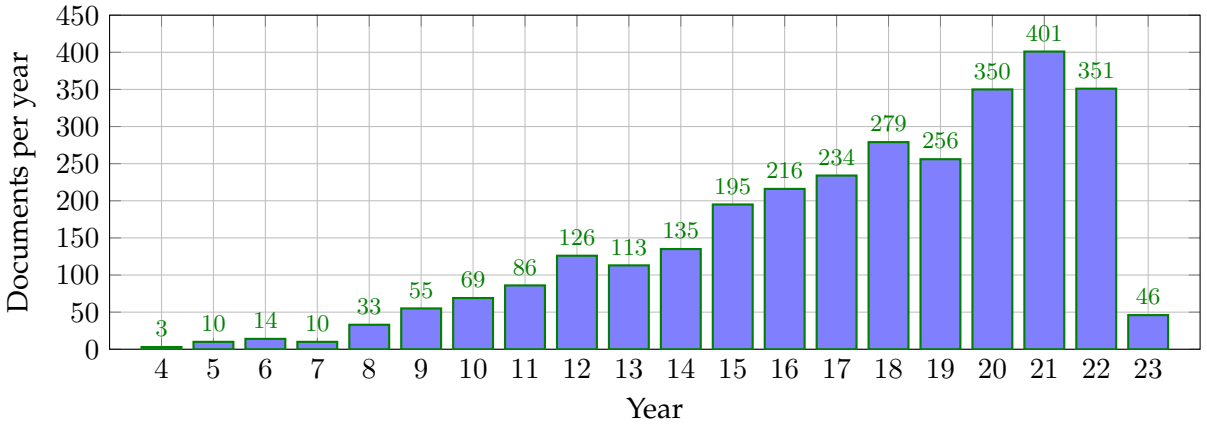

Figure 1. Number of documents published in the Scopus database from 2004 to 2023

Regarding the areas of knowledge where authors of UDFJC have produced more scientific research, Fig. 2 presents a list of the main fields with UDFJC publications.

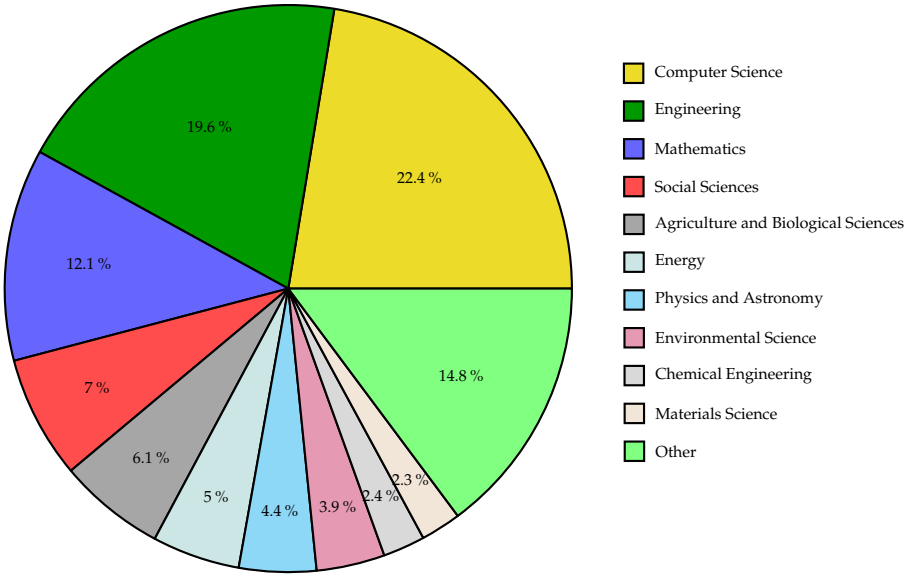

Figure 2. Percentage of documents published per area of knowledge

According to Fig. 2, it is clear that Computer Science (22,40 %), Engineering (19,60 %), and Mathematics (12,10 %) are the most recurrent areas of publication by authors of UDFJC, which amounts to about 54,10 % of the total documents published. Nevertheless, it is essential to note that Social Sciences are an increasing area of research and rank fifth, with about 7,00 % of publications. This implies that human sciences constitute a significant contribution regarding the global impact of research from UDFJC for Bogotá and the world.

Finally, Table I shows the group of 20 institutions with which UDFJC has strong relations regarding scientific research.

Table I. Universities and institutions with strong research relationship with authors from UDFJC

Affiliation name	Documents	Location
Universidad Nacional de Colombia	394	Colombia (Bogotá)
Universidad Tecnológica de Bolívar	167	Colombia
Pontificia Universidad Javeriana	93	Colombia (Bogotá)
Universidad de Los Andes	82	Colombia (Bogotá)
Institución Universitaria Pascual Bravo	70	Colombia
Universidad Tecnológica de Pereira	55	Colombia
Universidad de Oviedo	51	Spain
Field Museum of Natural History	51	United States
Universidad Militar Nueva Granada	51	Colombia (Bogotá)
Universidad de Córdoba, Montería	51	Colombia
Universidad del Rosario	47	Colombia (Bogotá)
Universitat Politècnica de València	46	Spain
International University of La Rioja	42	Spain
Instituto Tecnológico Metropolitano	37	Colombia
Universidad de Jaén	36	Spain
Freie Universität Berlin	34	Germany
Corporación Universitaria Minuto de Dios	34	Colombia
Universidad Nacional de Colombia, Manizales	31	Colombia
Universidad Pontificia de Salamanca	29	Spain
Universidad de La Sabana	29	Colombia (Bogotá)

The main results shown in Table I regarding collaborative research are the following:

i. UDFJC promotes collaborative research with multiple institutions located in Colombia, particularly in Bogotá, which confirms its role as an integrator of scientific knowledge in the city.

ii. One of the most important partners for UDFJC research corresponds to universities in the Iberian Peninsula (Spain), with five universities in its top 20 collaborators. These collaborations amounted to about 204 documents out of 2.996, *i.e.*, 6,8091%.

iii. From these collaborations, Universidad Nacional de Colombia (Bogotá) and Universidad Tecnológica de Bolívar (Cartagena) have 561 documents published in the Scopus database, *i.e.*, 18,725% of the total documents, which demonstrates the important role of researchers from

both universities in collaborating with researchers at UDFJC to generate scientific advances in Engineering, Science, and Technology from Colombia to the world.

iv. The top 20 institutions that collaborate in research with UDFJC have produced about 1.430 documents published in the Scopus database, *i.e.*, about 47,7303% of the total scientific production of UDFJC, which implies that these 20 institutions have developed strong relationships with UDFJC for promoting science and technology worldwide, with Bogotá as one of the main foci of dissemination of scientific works in Colombia.

References

[1] Scopus, "Research report: Universidad Distrital Francisco José de Caldas," 2023. [Online]. Available: https://www.scopus.com/affil/profile.uri?afid=60104009↑ 1

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