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“The principal objective of the *Revista Facultad de Ingeniería* is to promote the publication of original and unpublished articles derived from experimental research or from engineering simulations, developed by researchers and experts from national or international, public or private institutions”.

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## EDITORIAL

Since March 12, this year, the Revista Facultad de Ingeniería has been assigned an online ISSN (e-ISSN: 2422-2844), which can be seen at the top of this issue's cover. Considering that digital publications are in state of tremendous growth, we hopefully expect our online journal to reach a broader spectrum of readership by having this identification, since our journal was only recognized by the printed serial number.

With regard to digital publications, The Investigation Vice-rectory arranged with the Academic Council and the Superior University Council of the University of Antioquia the Digital Object Identifier (DOI) for 21 journals of the institution, including the Revista Facultad de Ingeniería. Indeed, the current issue is the first of our journal containing papers identified by DOI. It is expected that the use of this alphanumeric string positively impact the visibility of the articles, authors and the University. Furthermore, another important advantage of the DOI should be noted: its interoperability, which is the ability to use this identifier for services outside the direct control of the assigner exchanging meaningful information; for instance, a user can search for a paper DOI number without consulting the assigner [1].

Based on the foregoing, the plethora of documents available on the Internet everyday has generated the need to create a system to identify and locate digital documents that frequently change location or name. The Digital Object Identifier is the most currently used, created to uniquely identify "digital objects" such as papers, articles, or parts of electronic journals, book chapters, images, figures , etc. [2].

In 1997, at a book fair in Frankfurt, the International DOI® Foundation (IDF) was created to develop and manage the DOI system. This system was an initiative of the International Publishers Association, the International Association of Scientific, Technical and Medical Publishers and the Association of American Publishers. Citation linking of electronic articles developed by the CrossRef Registration Agency is the first application of the DOI system. After its launching in the year 2000, some other registration agencies have been appointed in other areas and languages. DOI syntax was standardized in 2000 and the DOI system was approved as an ISO standard in 2010 [3].

The DOI syntax is defined by a prefix separated by a slash character; the DOI number has no limitation on length or characters, it is case-sensitive and can incorporate any standard Unicode character. Thus, a particular registrant is given a unique prefix and suffix assigned by Registration agencies, allowing decentralized allocation of DOI numbers. The prefix has two components: a directory indicator followed by a registrant code, separated by a period (e.g. 10.1500). The directory indicator is always 10 identifying the DOI string. The registrant code is an alphanumeric string that identifies the registrant. The suffix may be a serial number or may incorporate other identifier generated in another system used by the registrant such as an ISBN, ISSN, among others. In these cases, the existing system shall specify the suffix construction. For instance, the syntax for a DOI using an ISSN would be: 10.1500 / issn.0028-0836. Any DOI number (10.1500 / jpci.1998.2535) can become a link as <http://dx.doi.org/10.1500/jpci.1998.2535> link for easier access to the document when the DOI is displayed in an Internet browser [1, 2].

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