Editorial Policy
Ingeniería e Investigación

Aim and scope

The *Ingeniería e Investigación* (I&I) journal is an open access digital scientific publication issued since 1981, with a continuous periodicity of three issues per year. Its main objective is to promote the dissemination of original and unpublished scientific research and technological developments in all disciplines related to engineering. Papers published in I&I invite discussion on current issues relevant to the academic community.

I&I is an international journal published in English which uses a double-blind peer review system to ensure the quality and originality of the published content. Editing of the journal is carried out with high standards of professional quality, via a completely autonomous editorial management platform that hosts the content in different formats, with the aim to adapt to current needs regarding visualization and digital preservation.

The journal **has no cost for readers or authors**, as it is funded by the Faculty of Engineering of Universidad Nacional de Colombia under the Diamond open access model.

I&I publishes scientific and technological research articles, review articles, and case reports in the following areas of engineering:

- Agricultural Engineering
- Biomedical Engineering
- Chemical, Environmental, and Food Engineering
- Civil and Sanitary Engineering
- Electrical, Electronics, and Telecommunications Engineering
- Industrial Engineering
- Mechanical, Mechatronics, and Materials Engineering
- Systems and Computer Engineering
- Engineering Education

Before submitting an article, please read the editorial and data policies of the I&I journal carefully.

Language of publication

English

Frequency of publication

The I&I journal has a continuous periodicity (three issues per year). Once the article has been accepted and the editing phase has been completed, it will be available online.
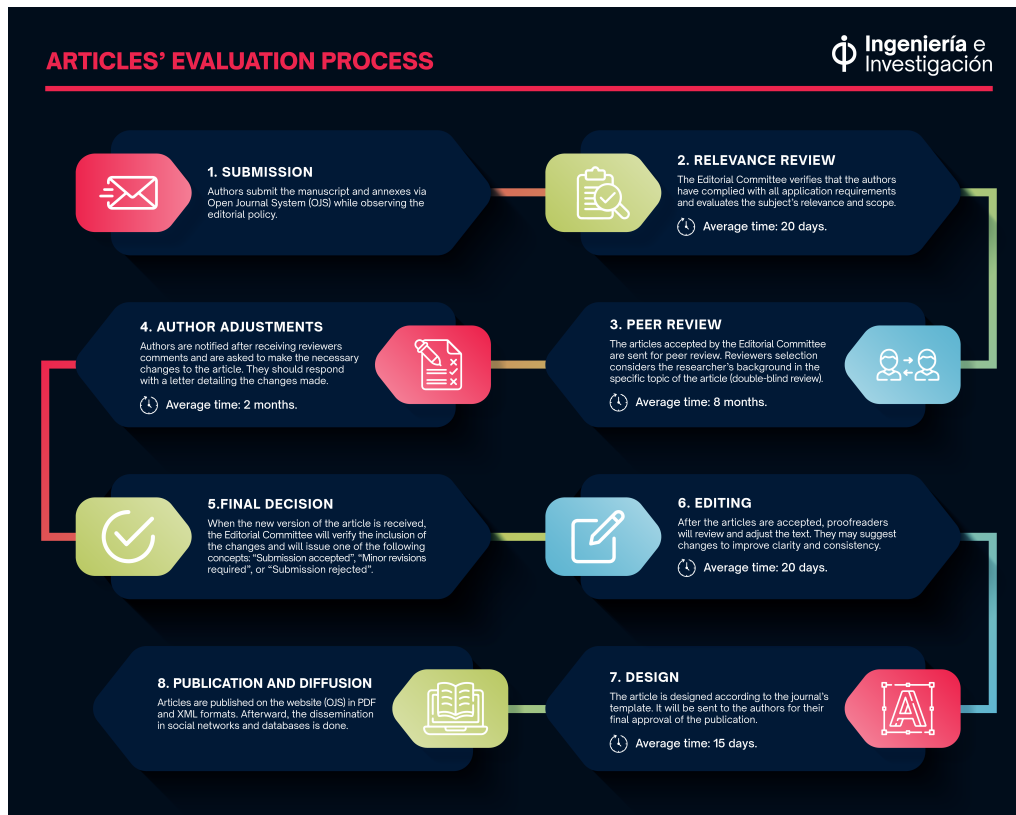
Open access policy

The *Ingeniería e Investigación* journal publishes its articles through the *Open Journal Systems* platform, as the editorial team firmly believes that allowing access to research results by the scientific community and the general public bolsters its quality and is a factor of equity. Likewise, due to its characteristics, the use of this tool allows for a better control of the editorial process, facilitating communication between its actors.

Article evaluation process

The process is described in the following Figure:

ARTICLES' EVALUATION PROCESS — Ingeniería e Investigación

1. SUBMISSION
Authors submit the manuscript and annexes via Open Journal System (OJS) while observing the editorial policy.

2. RELEVANCE REVIEW
The Editorial Committee verifies that the authors have complied with all application requirements and evaluates the subject's relevance and scope.
Average time: 20 days.

4. AUTHOR ADJUSTMENTS
Authors are notified after receiving reviewers comments and are asked to make the necessary changes to the article. They should respond with a letter detailing the changes made.
Average time: 2 months.

3. PEER REVIEW
The articles accepted by the Editorial Committee are sent for peer review. Reviewers selection considers the researcher's background in the specific topic of the article (double-blind review).
Average time: 8 months.

5. FINAL DECISION
When the new version of the article is received, the Editorial Committee will verify the inclusion of the changes and will issue one of the following concepts: "Submission accepted", "Minor revisions required", or "Submission rejected".

6. EDITING
After the articles are accepted, proofreaders will review and adjust the text. They may suggest changes to improve clarity and consistency.
Average time: 20 days.

8. PUBLICATION AND DIFFUSION
Articles are published on the website (OJS) in PDF and XML formats. Afterward, the dissemination in social networks and databases is done.

7. DESIGN
The article is designed according to the journal's template. It will be sent to the authors for their final approval of the publication.
Average time: 15 days.

Note: the authors will receive notifications regarding new developments in each of the phases. It will also be possible to monitor any developments directly on the OJS.

Articles submitted to the I&I journal undergo an internal evaluation process by the Editorial Committee, in order to define, according to the subject of the article and the scope of the journal, whether the peer review process should begin.

Preliminary review (average time of 10 days): in this round of evaluation, the editorial team verifies whether the authors have complied with all application requirements, among them: format, license, and originality.

Relevance review by the Editorial Committee (average time of 30 days): this evaluation is carried out by the journal's editors, who assess the relevance and development of the topic.

Peer review (average time of 8 months): the articles accepted by the Editorial Committee are sent for peer review. Peer selection considers the trajectory of a researcher in the specific topic of the manuscript, upon the condition that the peer reviewer has *recent* publications in indexed journals, articles related to the topic of the manuscript to be evaluated, and an academic level corresponding to the highest degree of the authors (*peers with an H-index greater than 5 are considered*). The reviewers do not know the name of the authors and vice versa (double-blind review). The possible verdicts are:

1. Submission accepted

2. Revisions required (minor changes)

3. Resubmit for review

4. Resubmit elsewhere

5. Submission declined

6. See comments

Please keep in mind:

- In the event that the concepts of the two reviewers differ from each other, the Editorial Committee will appoint a third one.

- A maximum of **20 reviewers** will be assigned. If these requests are not accepted or completed, the Editorial Committee will inform the authors of the status of the process and will give them the option to continue with it.

- The journal does not accept new submissions of articles that were declined at this stage.

(academic peer assessment form).

Final decision by the Editorial Committee (average time of 30 days): once the evaluations of at least two peers have been received, they are consolidated, and a concept is sent to the authors, so that the necessary actions can be taken. The authors should send a response letter indicating all the changes made to the article.

When the new version of the article is received, the Editorial Committee will verify the inclusion of the peer reviewers' comments. Based on the initial verdict, the article may initiate a second round of peer review.

The possible outcomes of the evaluation are:

1. Submission accepted

2. Minor revisions are required

3. Submission declined

Only at the end of this stage can a letter of acceptance of the article be issued by the I&I journal.

Editing (average time 20 days): once the articles are accepted, proofreaders will check spelling, grammar, and punctuation, in addition to verifying consistency in the structure and style of the manuscript. They may also suggest changes to improve the clarity and coherence of the text.

Design (average time of 15 days): once the editing phase is completed, the design process begins, which is based on the journal's template and complies with all editorial normalization standards. The designed layout of the article will be sent to the authors for their final approval of the publication. At this stage, the authors may only correct minor typographical and layout errors.

Guidelines for peer reviewers

The objectives of the peer review process of the I&I journal are to verify the quality of the research before publication, to identify errors unnoticed by the authors, and to provide feedback to the authors for the improvement of their research processes.

As a reviewer, it is essential to maintain the confidentiality of the evaluated articles and not to share them with any third parties.

The reviewer will consider the following evaluation criteria and the scope of the journal.

Originality	The topic is sufficiently novel and interesting to warrant publication in the journal.
Relevance	The subject of the article corresponds to the scope of the journal, and the topics covered are important and contribute to the development of engineering.
Article structure	The structure of the article complies with the article submission guidelines established by the journal, namely: it contains introduction, methodology, results, discussion, and conclusions sections. The way these texts are written is clear and effectively communicates the process and findings of the research.
Title	The title adequately describes the content of the article.
Abstract	The abstract adequately describes the content of the article and presents, in a general way, the context of the research, its development, the objective, the methodology, the main results, and the general conclusion.
Introduction	The introduction contains the definition of the research problem, its development, and the hypothesis. To this effect, the authors may briefly present the context of the research, the results of other works, and the challenges to be addressed. The experiments/simulations performed should also be presented in a general way.
Methodology	The information provided by the authors is sufficient to replicate the research, clearly explains how the data were obtained, describes the equipment and materials in an adequate and technical manner, and presents the design of experiments/simulations and the way in which the statistical analysis of the data was performed.
Results	The authors present their research findings clearly and in logical sequence. Their explanation is reasonable and duly supported both scientifically and technically.
Discussion	The authors interpret and discuss the results of their study with regard to the existing literature and the broader context of their field of research. The authors discuss how their study contributes to the field of research and the possible theoretical, practical, or public policy implications of their findings. The limitations of the study are discussed, and possible sources of bias and error are mentioned.
Conclusions	The conclusions agree with the results and their analysis, and they are consistent with the objective of the research and the proposed hypotheses. The main points of the discussion are included.
Language	The authors make appropriate use of language to communicate the information contained in the article.
Tables and figures	The tables and figures are of high graphic quality, necessary, and duly used in the text.
References	The sources are relevant and current, and they are adequately cited and referenced within the text and at the end of the article.

Considering the evaluation criteria and the scope of the journal, the reviewer will report the result according to the following options:

1. Submission accepted. This option is selected if it is recommended that the submission be accepted as is.

2. Revisions required. This option is selected when the articles need small modifications.

3. Resubmit for review. This option is selected when the article needs substantial modifications and must undergo a second round of peer review.

4. Resubmit elsewhere. This option is selected when the article is declined for publication in I&I and it is recommended that it be submitted to another journal.

5. Submission declined. This option is selected when the article is declined for publication in I&I.

6. See comments. This option is selected if the reviewer does not agree with any of the previous options.

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Ethics in scientific publishing

Ethics in scientific publishing is essential to ensure the integrity and reliability of research. The *Ingeniería e Investigación* journal is committed to implementing the best ethical practices in the publication of scientific articles and expects all authors, reviewers, and editors involved in the editorial process to follow the same ethical standards. This section presents the journal's ethical policies and guidelines to ensure transparency, honesty, and accountability in the publication of research.

In accordance with the policies for the publication of articles in *Ingeniería e Investigación*, it will be considered unethical for authors to submit articles for review which have been previously published, lack proper citation and referencing criteria, or have been simultaneously submitted for review in different publications. Moreover, considering that the evaluation process is *double-blind*, any attempt to contact the reviewers with the intention of coercing the outcome of the evaluation will be considered unethical.

When an author or group of authors incur in serious misconduct (as listed in the journal's ethics document), such as plagiarism, duplicate publication, scientific fraud, fragmentation, improper use of sources, and uninformed consent, the Editorial Committee of the Ingeniería e Investigación journal, for legal purposes, will take the necessary actions through the Legal Office of Universidad Nacional de Colombia.

General criteria

1. Articles published in I&I should contain sufficient details and references to replicate or refute the study.

2. Fraudulent or deliberately inaccurate statements constitute unethical behavior.

3. If a study includes chemicals, procedures, or equipment representing unusual hazards inherent to their use, the author should clearly identify them.

4. If the study involves animals or humans, the author should ensure that the article explicitly states that all procedures were performed in accordance with laws and institutional guidelines.

5. The privacy rights of human beings must be respected.

Authorship criteria

An author is a person who has made a significant intellectual contribution to the article. Therefore, all persons named as authors must meet the authorship requirements,

and all those who meet them must be explicitly mentioned. Three basic criteria must all be met to be recognized as an author:

a. Substantial contribution to the conception and design, data acquisition, and analysis and interpretation of the study.

b. Drafting or revision of the intellectual content.

c. Approval of the final version.

The I&I journal requests that the authors declare their specific contributions according to the CRediT taxonomy.

There are three types of authorship that are considered unacceptable: the ghost author, who contributes substantially but is not acknowledged; the guest author, who makes no discernible contribution, but is named to increase the chances of publication; and honorary authorships, which are based solely on a small affiliation with a study.

The I&I journal magazine makes the following recommendations:

1. Any individuals who participate in a study but do not meet the authorship criteria should be listed as collaborators in the acknowledgments section. The authorship order should be a joint decision of the authors.

2. Before starting a research, it is recommended to document the role and the way in which the authorship of each researcher will be acknowledged.

3. There must be no lies regarding a person's participation in the research or publication. If their contribution is deemed substantial, authorship is justified, be it as author or contributor.

4. Authorship should not be declared without the consent of the individual.

5. Some groups place authors in alphabetical order, sometimes with a note explaining that all authors made equal contributions to the study and publication.

The I&I journal will consider changes in authorship. This refers to the addition, deletion, or reorganization of the names of the authors of an accepted article.

Any requests to add or remove an author, or to rearrange the names of authors, should be sent by the corresponding author of the accepted article and should include the reason for the request. I&I requests that all authors confirm in writing (via e-mail) that they agree to the addition, deletion, or rearrangement of author names.

Conflict of interest

The *Ingeniería e Investigación* journal requires all authors, reviewers, and editors to disclose any potential conflicts of interest that may influence the content or review of a manuscript. A conflict of interest can be any financial, personal, professional, or institutional relationship that may influence the judgment or objectivity of the author, reviewer, or editor.

Potential conflicts of interest may include but are not limited to the following:

1. Participation in an organization that may have a financial interest in the results of the work presented.

2. Owning shares, patents, or copyright related to the subject of the manuscript.

3. Receiving funding from an organization that may have a financial interest in the outcome of the work presented.

4. Having personal or professional relationships with one or more of the authors of the manuscript.

5. Having some type of institutional conflict, i.e., employment, fees, consulting to sponsoring organizations, ownership of investment funds, paid expert testimony.

It is the responsibility of the authors, reviewers, and editors to disclose any possible conflicts of interest. If any such conflict is identified, the journal will take steps to ensure that the manuscript is reviewed and published in a fair and objective manner. If the conflict of interest is deemed incompatible with a fair and objective review or publication, the journal reserves the right to decline the manuscript or withdraw it from publication. In this regard, I&I makes the following recommendations:

1. Authors, reviewers, and editors must inform if they have any real or potential conflict of interest that inappropriately influences the findings or results of the work presented. This, within three (3) years of starting the work.

2. The role of the study's sponsor(s), if any, must be reported in any of the stages of the work.

3. The authors should not enter into any agreements that interfere with access to all data and the ability to independently analyze them, as well as to prepare and publish the manuscripts.

4. When submitting a document, a statement (titled *Funding*) should be made in a separate section of the text, which should be placed before the *References* section.

5. Examples of potential conflicts of interest that must be disclosed include: employment, consulting, stock ownership, fees, paid expert testimony, patent applications/registrations, grants, and other funding.

6. All sources of financial support for the project must be disclosed.

7. The sponsor's role in the study should be described.

Duplicate publication

Authors are required to ensure that their article is based on original research (which has never been published). Intentional submission or resubmission of their work for duplicate publication is considered a breach of editorial ethics. One of the main reasons why the duplicate publication of original research is considered unethical is because it may result in inappropriate weighting or the unintentional double counting of the results of a single study, thus distorting the available evidence.

Publication or distribution on the Internet may be regarded as prior publication and compromises the originality of the article. However, I&I will allow the publication of articles in non-commercial *preprint* repositories, subject to a prior evaluation by the Editorial Committee.

I&I considers that a duplicate or multiple publication occurs when two or more articles, without referring to each other, share essentially the same hypotheses, data, results or discussion points, and conclusions. This can occur to different extents: literal duplication, partial but substantial duplication, or even duplication by paraphrasing. In this regard, I&I states the following:

1. Articles submitted for publication in the *Ingeniería e Investigación* journal must be original and must not have been submitted to another publisher or scientific journal.

2. At the time of submission, authors should disclose the details of related articles (even if they are in another language), similar articles in press, and translations. This implies that, at the time of application, authors must notify I&I if their article has been previously published in a *preprint* repository and indicate a link to it.

3. It is recommended to avoid submitting articles describing essentially the same research to more than one journal. Even if a submitted article is being reviewed and the authors are uncertain about the process, they should wait for I&I to inform them of its status before submitting it to another journal or publisher.

4. It is recommended to always report any previous submissions (continuity of work) that could be a duplicate publication.

5. It is recommended not to write about one's own research in two or more articles from different perspectives or about different aspects of the research without mentioning the original article.

6. If an author wishes to submit an article to a journal that will be published in a different country or in a different language, they must inform I&I and the other journals involved.

7. At the time of submission, all details regarding related articles in a different language should be indicated, as well as existing translations.

Recognition of sources

Authors should cite the publications that have influenced their work. Any information obtained privately should be used only with the explicit written permission of the source.

The reuse of tables and figures must be authorized by their author and the editor, and this must be adequately mentioned in the corresponding legend.

Data fabrication and falsification

Data fabrication and falsification are practices of scientific fraud that correspond to presenting false data or conclusions that have not been generated through a rigorous research process. Both data fabrication and falsification are serious forms of misconduct, as they do not accurately reflect the results of a research work. I&I establishes the following types of fraud in the publication of research results:

a. *Data fabrication:* inventing data and results and then communicating them.

b. *Data falsification:* manipulating research materials, images, data, equipment, or processes. Falsification includes the modification or omission of data or results in such a way that the research is not accurately presented.

Authors should be aware of editorial policies and their research data. Before submitting an article to the I&I journal, please read the journal's editorial and data policies carefully. Moreover:

a. Never modify, change, or omit data in a deliberate way. This includes research materials, processes, equipment, tables, citations, and bibliographic references.

b. Properly manage the data supporting your research, taking special care in its collection, production, preservation, analysis, and communication.

c. Keep a thorough record of the raw data, which should be accessible if required by the editor, even after the article has been published.

Plagiarism

The I&I journal considers plagiarism to be a serious violation of academic and scientific integrity. Plagiarism is defined as the presentation of ideas, words, or graphic material by other authors without giving them the corresponding credit. Plagiarism includes but is not limited to directly copying a work without citing the source, using the structure and style of another work without proper attribution, inappropriate paraphrasing, and presenting previously published material as one's own.

Plagiarism has different levels of severity, according to the amount of someone else's work that was taken (several lines, paragraphs, pages, the whole document) and the nature of the text copied (results, methods, or introduction sections). However, I&I considers plagiarism in all its forms to be unethical conduct and unacceptable. Verbatim copying is only acceptable if the source is indicated and the copied text is enclosed in quotation marks, with its corresponding page number.

The I&I journal provides the following recommendations to prevent plagiarism:

a. Always remember that it is essential to acknowledge the work of others (including the work of your assistant or your own previous work) as part of the process.

b. Do not reproduce a work word for word, in whole, or in part without permission and acknowledgment of the original source.

c. Keep a record of the sources you use when conducting research and where you used them in your paper.

d. Be sure to fully acknowledge and properly cite the original source in your article (if it has a DOI, use it).

e. Refrain from using other people's work word for word, even when referencing the source, unless you do so in quotation marks (direct quotation).

f. Remember that paraphrasing is only acceptable if the source is correctly indicated and its meaning or intent is not changed.

g. Quote and cite all the content you have taken from a previously published source, even if you are saying it in your own words.

The I&I journal will conduct a thorough review of each manuscript to detect any form of plagiarism. If an author is found to have committed plagiarism, the journal will take appropriate action to address the unethical conduct, including the withdrawal of the article and the prohibition of any future publications. In addition, I&I will notify the author's institution and other allied journals if it is determined that plagiarism was deliberately or repeatedly committed.

Fragmentation

Fragmentation in scientific publishing refers to the publication of the same data in different articles, without a clear reference or mention of the other related works. This type of behavior is regarded as scientific fraud by I&I, as fragmentation can result in a distortion of the literature, misleading readers into believing that the data presented in each fragment (*i.e.*, journal article) are derived from a different sample of subjects. This not only biases the scientific database, but also involves a repetitive process that wastes the time of editors and reviewers, who must deal with each paper separately. In addition, the number of references where the author is cited is unreasonably inflated.

To prevent fragmentation in scientific publishing, the I&I journal establishes the following policies:

- Authors should clearly indicate whether their work is based on previously published data or results. If so, a complete and accurate reference to the original source must be provided.

- Authors should make sure that the data or results presented in their article are new and original and have not been published elsewhere.

- Authors should avoid publishing the same data or results in different articles without a clear reference or mention of the other related papers.

- The I&I journal reserves the right to decline papers that evince fragmentation or the unjustified duplication of previously published data or results.

- Authors should inform I&I of any other publication or submission of their work elsewhere, be it in whole or in part.

- Authors must follow I&I journal policies regarding authorship and the acknowledgement and citation of sources in the publication of their work.

Informed consent

The *Ingeniería e Investigación* journal believes that an informed consent policy is critical to ensuring the protection of the participants and the ethical integrity of a research work. In this regard, I&I establishes the following policies:

a. Informed consent is mandatory for all research participants, including human and animal subjects.

b. Informed consent should be obtained by researchers voluntarily and free of any pressure or coercion. Informed consent must be obtained in writing and signed by the participant or his/her legal representative before participating in a research work.

c. The content of the informed consent should be clear and understandable, and it should include information on the purpose of the research, the procedures the participant will undergo, the potential risks and benefits, and the option to withdraw participation at any time.

d. Participants should be informed of the possibility that the results of the research may be published, and their specific consent should be obtained for the publication of any information that identifies them.

e. The main researcher is responsible for ensuring that informed consent is appropriately obtained and for maintaining appropriate records.

f. In the case of research involving vulnerable participants, such as minors, persons with disabilities, or dependent persons, special procedures must be followed to ensure their protection and informed consent.

These policies are in line with the ethical and legal standards established in the field of science. In addition, I&I may require authors to provide evidence that informed consent has been obtained prior to the publication of an article that includes research data involving human or animal participants.

Correcting published articles

When an author discovers a significant error or inaccuracy in the published work, it is their obligation to immediately notify the journal and cooperate in the correction process.

When an author or group of authors commit a serious fault of scientific fraud as those listed herein, *i.e.*, plagiarism, duplicate publication, data fabrication and falsification, fragmentation, improper use of sources, and uninformed consent, the Editorial Committee of the *Ingeniería e Investigación* journal, for legal purposes, will take the necessary actions through the Legal Office of Universidad Nacional de Colombia.

Statement on Artificial Intelligence (AI)

AI and AI-assisted technologies should not be listed as authors or co-authors, nor cited as such. Authorship implies responsibilities and tasks that can only be attributed to and performed by human beings.

Authors should report the use of generative AI and AI-assisted technologies by adding a statement at the end of their manuscript, before the *References* list.

Example:

During the elaboration of this work, the author(s) used [NAME OF TOOL/SERVICE] with the aim to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as necessary and take full responsibility for the content of the publication.

Guidelines for authors

Only articles written in English with a maximum of 6000 words will be accepted. The word count includes the whole text and its references, figures, and tables (a higher word count will be evaluated by the Editorial Committee). All articles should be submitted in the journal template. The template can be downloaded at the following link: Word/LaTeX template.

The author must sign up in the system and submit their article in a five-step process. Once received, the corresponding author will be notified via e-mail or will be able to check the status of their article in the system.

If accepted, the author must make the corrections recommended by the reviewers and the Editorial Committee for the subsequent publication of the article.

Article types

The I&I journal considers the following types of articles for publication:

- **Research articles:** original articles presenting the results of an original research work conducted by the authors. These articles include an introduction that establishes the context and importance of the research, a methodology section that describes the procedures employed, a results section that presents the findings, and a discussion that interprets the results and relates them to the existing literature.

- **Review articles:** articles that summarize and critically evaluate the existing literature on a particular topic. These articles often include an introduction that outlines the context of the topic, a methodology section that describes the criteria used to select the studies reviewed, a results section that summarizes the findings of said studies, and a discussion that assesses the quality of the evidence and makes recommendations for future research.

- **Case studies:** detailed reports of one or more cases that illustrate a particular phenomenon or problem. Case studies may include an introduction that outlines the context of the problem, a methodology section that describes how the case was selected and how data were collected, a results section that presents the findings of the case, and a discussion that interprets the results and makes recommendations for future research.

- **Letters to the editor:** short articles that usually comment on an article previously published in the journal or on a relevant topic within the scope of the journal. Letters to the editor can also be used to correct errors or clarify misunderstandings in previously published articles.

Content

In order for any article to be considered by the Editorial Committee, and for its potential publication in the *Ingeniería e Investigación* journal, it must have at least the following sections:

- Title

- Abstract

- Keywords

- Introduction

- Methodology

- Results

- Discussion and conclusions

- References

Title

The title of the article should be brief and explanatory. It should answer the reader's question: Is this a relevant article for my research? To this effect, the title should be clear and concise, using keywords relevant to the subject of the article.

In addition, the title should be informative, reflect the content of the article accurately and clearly, and avoid the use of jargon or technical terms unfamiliar to most readers. It is important to be direct and avoid superfluous words. Consider using a short, effective phrase rather than a complete sentence. Check spelling and grammar to ensure that the title is easily understandable and contains no typographical errors.

Author information

All authors must register in the submission system, with their full name, e-mail address, country, ORCID, institutional affiliation, and a short biography indicating academic titles, current position, institution, and country.

Social media profiles

I&I asks authors to provide links to their professional or academic social networking profiles, if available. Social media profiles are a valuable tool to help readers learn more about the authors and their work. If you would like to share your social media profiles, please include the corresponding links in the online submission form. Make sure the links are active and accurate. Please note that providing your social media profiles is optional and will not affect the consideration of the article for publication in our journal.

Abstract

The abstract should briefly present the background, research objective, methodology, main results, and main conclusions. It should be clear and concise, using keywords and indexing terms relevant to the subject of the article. The abstract should be written in the past tense, contain no more than 250 words, and be informative enough for the reader to understand the nature and scope of the research without having to read the entire article.

Graphical abstract

A graphical abstract is a concise, visual representation of the article's content, designed to capture the attention of a broad readership. Although optional, its use is recommended, as it increases the online visibility of the article.

To submit a graphical abstract, please attach a separate file in the online submission system. Be sure to provide an image with a minimum size of 531 × 1328 pixels (height × width) or proportionally larger.

Practical application

This is an optional section of the article that seeks to achieve a wider dissemination of the results among professionals and the non-academic public. This section should be written in simple language, aimed at a broad audience, and should present the results, their significance, and the possible practical application of both the results and the methodology used. The authors may use examples of real cases to contextualize readers in the practical application of the research. This section should contain 150-200 words and should be placed after the abstract and before the keywords in the article file.

Keywords

Keywords are terms or phrases that describe the content of the article and relate it to the field of research. Keywords are important to help readers find the article in online databases and search engines. It is recommended that the author provide three to five relevant keywords. Keywords should be specific and reflect the content of the article. Words other than those used in the title and abstract should be used to optimize search engine processes and results. Avoid general terms and use keywords that are directly related to the subject of the article. Make sure that the keywords are not too long and are separated by commas. The keywords should be included after the abstract in the same document.

Note: the title, abstract, and keywords must be written in English and Spanish.

Highlights

Highlights are a brief list of the main points that summarize the most important and novel aspects of an article. Highlights should be concise and clearly and accurately explain the content and findings of your article. It is recommended that the author provide three to five highlights. Each point should be a short phrase and should not exceed 85 characters. The highlights should be included in the same document as the full article and should appear immediately after the abstract.

Introduction

The introduction is a crucial part of the article and should provide the reader with an overview of the subject, including the relevance of the topic, a literature review focused on establishing the background and state of the art of the problem under study and the research questions addressed. This section should also highlight the novelty of the work presented. It is important to clearly describe the studied problem and present the information in an organized and coherent manner, focusing on a logical structure and progressively presenting the information. It is recommended that it takes up the first two pages of the article and does not include specific details of the methodology or the results of the study, which should be addressed in the corresponding sections of the article.

Methodology

The methodology section is a fundamental part of the article and should describe the processes and tools used to address the problem and prove or disprove the hypothesis. The experimental and analytical procedures performed should be clearly and thoroughly presented, including the selection of samples and participants, the data collection instruments and techniques, the data analysis, and possible biases or limitations of the methodology used. It is important that the authors explain the reasons behind the selection of a particular methodology and how it addresses the research questions. Furthermore, sufficient details should be provided, so that other investigators can replicate the study. If new or innovative methodologies are used, their characteristics and advantages with regard to other conventional methodologies must be clearly explained.

Results

The results section presents the findings and conclusions derived from the study. In this section, the data and results obtained should be described clearly and concisely. It is advisable to use tables, figures, and graphs to help visualize and better understand the information. It is important to highlight the most relevant and significant results regarding the research questions. The authors should provide an adequate interpretation of the results, highlighting the implications and possible applications of the findings for solving the problem and for the subject of the study in general. In addition, the results should be compared with those of other previous studies, and possible limitations

and biases in the research should be analyzed. The results should answer the following questions: Why does this research offer a new solution? How can it be useful to others?

Tables, figures, images, and equations guidelines

When the paper is accepted, we might request the following files: *tables, high-resolution figures*, and *images*. All those files should be uploaded separately via our online submission system OJS according to:

1. **Tables:** Please submit tables in Word format at the end of the document. Tables should be created using the Microsoft Word table editor, preferably. Please save the files as Table. 1, Table. 2. . .

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Acknowledgements

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