

## About the Journal

**Indian Journal of Science and Research [IJSR]** is an Official Publication of A Welfare Society of Harmonized Research.

Indian Journal of Science and Research (IJSR) is constantly working to explore quality research, research ideas and innovation to the world. Being a peer-reviewed, online journal it provides a better platform to scientist, researchers, academicians, scholars and students to excess and explore the ideas. Indian Journal of Science and Research publishes journals in discipline of Pharmacy, Engineering and Applied sciences. Each welcomes quality research articles, review articles, short communications, case report, letter to editor, technical and educational forum. The aspiration of IJSR abides to adhere with creativeness as well as ethics of research. Committed support and eminent guidance of our accomplished and enthusiastic team of editors fostering us to achieve the aim of journal. It serves the need of methodical and non-methodical personals involved/interested in Natural Science (Biology, Natural medicine, animal science, Physics, Chemistry, Life science, Material science, Earth science, Electronics, Mathematics, Astronomy, Oceanography, and Engineering).

All articles published in this journal represent the opinion of the authors and not reflect the official policy of the Indian Journal of Science and Research [IJSR].

All papers are subjected to peer-review.

## About the Society

A Welfare Society of Harmonized Research is a scientific, educational and professional non-profit organization committed to promote the highest professional and ethical standards of Research and to work for the growth, development and betterment in the field of Advance Research. It is a registered Society under the M.P. Societies Act 1973, No. 44 of 1973.

### **Vision**

To promote research in allied disciplines, with particular reference to the current development in the field;

For the advancement of Research in the country; and to collect, evaluate, disseminate and to employ the knowledge acquired for the benefit of the country.

### **Mission**

To work continuously with institutions and research industries for the growth and advancement of profession.

## Scope of the Journal

This Journal publishes original research work, reviews, short communications, case report, ethics forum, education forum and letter to editor that contribute significantly to further the scientific knowledge related but not limited to the field of allied sciences.

Indian Journal of Science and Research [IJSR] hopes that researchers, research scholars, academicians, industrialists etc. would make use of this journal publication for the development in the field of advanced technology related allied sciences profession.

## The Editorial Process

A manuscript will be reviewed for possible publication with the understanding that it is being submitted to Indian Journal of Science and Research [IJSR] alone at that point in time and has not been published anywhere, simultaneously submitted, or already accepted for publication elsewhere. The journal expects that authors would authorize one of them to correspond with the Journal for all matters related to the manuscript. All manuscripts received are duly acknowledged. On submission, editor review all submitted manuscripts initially for suitability for formal review. Manuscripts with insufficient originality, serious scientific or technical

flaws, or lack of a significant message, if not prepared as per journals instructions are rejected before proceeding for formal peer-review. Manuscripts that are unlikely to be of interest to the Indian Journal of Science and Research [IJSR] readers are also liable to be rejected at this stage itself.

Manuscripts that are found suitable for publication in Indian Journal of Science and Research [IJSR] are sent to two or more expert reviewers. During submission, the contributor is requested to provide names of two or three qualified reviewers who have had experience in the subject of the submitted manuscript, but this is not mandatory. The reviewers should not be affiliated with the same institutes as the contributor/s. However, the selection of these reviewers is at the sole discretion of the editor. The journal follows a double-blind review process, wherein the reviewers and authors are unaware of each other's identity. Every manuscript is finally reviewed by the Editor of the journal, who based on the comments from the reviewers takes a final decision on the manuscript. The comments and suggestions (acceptance/ rejection/ amendments in manuscript) received from reviewers are conveyed to the corresponding author. If required, the author is requested to provide a point by point response to reviewers' comments and submit a revised version of the manuscript. This process is repeated till reviewers and editors are satisfied with the manuscript.

Manuscripts accepted for publication are copy edited for grammar, punctuation, print style, and format. Page proofs are sent to the corresponding author. The corresponding author is expected to return the corrected proofs within three days. It may not be possible to incorporate corrections received after that period. The whole process of submission of the manuscript to final decision and sending and receiving proofs is completed online. To achieve faster and greater dissemination of knowledge and information, the journal publishes articles online as 'In Press' immediately on acceptance.

### **Authorship Criteria**

Authorship credit should be based only on substantial contributions to each of the three components mentioned below:

Concept and design of study or acquisition of data or analysis and interpretation of data; Drafting the article or revising it critically for important intellectual content; and Final approval of the version to be published.

Participation solely in the acquisition of funding or the collection of data does not justify authorship. General supervision of the research group is not sufficient for authorship. Each contributor should have participated sufficiently in the work to take public responsibility for appropriate portions of the content of the manuscript. The order of naming the contributors should be based on the relative contribution of the contributor towards the study and writing the manuscript. Once submitted the order cannot be changed without written consent of all the contributors. The journal prescribes a maximum number of six (06) authors for manuscripts depending upon the type of manuscript, its scope and number of institutions involved (vide infra). The authors should provide a justification, if the number of authors exceeds these limits.

### **Conflicts of Interest/ Competing Interests**

All authors of submitting manuscript to the journal must disclose any and all conflicts of interest they may have with publication of the manuscript or an institution or product that is mentioned in the manuscript and/or is important to the outcome of the study presented. Authors should also disclose conflict of interest with products that compete with those mentioned in their manuscript.

### **Submission of Manuscripts:**

All manuscripts must be submitted on-line through the website <http://ijsronline.org/submission.aspx> First time users will have to register at this site.

Registration is free but mandatory. Registered authors can keep track of their articles after logging into the site using their user name and password.

The submitted manuscripts that are not as per the “Instructions to Authors” will be directly rejected. Generally, the manuscript should be submitted in the form of two separate files:

**[1] Title Page/First Page File/covering letter:**

This file should provide

- a) The type of manuscript (original article, case report, review article, short communications, Ethics Forum, Education Forum, Letter to editor, Images, etc.) title of the manuscript, running title, names of all authors/ contributors (with their highest academic degrees, designation and affiliations) and name(s) of department(s) and/ or institution(s) to which the work should be credited. All information which can reveal your identity should be here. Use text/rtf/doc files. Do not zip the files.
- b) The total number of pages, total number of photographs and word counts separately for abstract and for the text (excluding the references, tables and abstract), word counts for introduction + discussion in case of an original article;
- c) Source(s) of support in the form of grants, equipment, drugs, or all of these;
- d) Acknowledgement, if any. This should be included in the title page of the manuscript and not in the main article file.
- e) If the manuscript was presented as part at a meeting, the organization, place, and exact date on which it was read. A full statement to the editor about all submissions and previous reports that might be regarded as redundant publication of the same or very similar work. Any such work should be referred to specifically, and referenced in the new paper. Copies of such material should be included with the submitted paper, to help the editor decide how to handle the matter.
- f) Registration number in case of a clinical trial and where it is registered (name of the registry and its URL)
- g) Conflicts of Interest of each author/ contributor. A statement of financial or other relationships that might lead to a conflict of interest, if that information is not included in the manuscript itself or in an authors' form
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- i) A statement that the manuscript has been read and approved by all the authors, that the requirements for authorship as stated earlier in this document have been met, and that each author believes that the manuscript represents honest work, if that information is not provided in another form (see below); and
- j) The name, address, e-mail, and telephone number of the corresponding author, who is responsible for communicating with the other authors about revisions and final approval of the proofs, if that information is not included on the manuscript itself.

**[2] Blinded Article file:** The manuscript must not contain any mention of the authors' names or initials or the institution at which the study was done or acknowledgements. Page headers/running title can include the title but not the authors' names. Manuscripts not in compliance with The Journal's blinding policy will be returned to the corresponding author. The main text of the article, beginning from Abstract till References (including tables) should be in this file. Use docx/doc files. Do not zip the files. Tables and images should be incorporated in this file. The pages should be numbered consecutively, beginning with the first page of the blinded article file.

**[3] Images:** Submit good quality color images. Each image should be less than 4 MB in size. Size of the image can be reduced by decreasing the actual height and width of the images (keep up to 1800 x 1200 pixels or 5-6 inches). Images can be submitted as jpeg files. Do not zip the files. Legends for the figures/images should be included at the end of the article file.

[4] **The contributors' / copyright transfer form** (template provided below) has to be submitted online in original with the signatures of all the contributors from the authors' area on [editor@ijsronline.org](mailto:editor@ijsronline.org)

### **Publication / processing fee**

Indian Journal of Science and Research (IJSR), does not impose any publication charges to author or institutions. The processing and publication of the article is absolutely free. All the editors and reviewers are working with us as on non profitable post.

### **Preparation of Manuscripts**

Manuscripts must be prepared in accordance with "Uniform requirements for Manuscripts submitted to Biomedical Journals" developed by the International Committee of Medical Journal Editors (October 2006). The uniform requirements and specific requirement of Indian Journal of Science and Research [IJSR] are summarized below. Before submitting a manuscript, contributors are requested to check for the latest instructions available. Instructions are also available from the website of the journal <http://www.ijsronline.org/> and from the manuscript submission site (<http://www.ijsronline.org/submission.aspx>).

The manuscript should be typed, double-spaced on standard-sized-paper (8.5" x 11") with 1" margins on all sides. Times New Roman font 12 pt should be used. The fonts used in the text as well as graphics should be restricted to Times New Roman, Symbol and Zapf Dingbats. **The prescribed word count for original research article and review articles are up to 3000 words including tables, references and abstract.**

Title: Should be in Title Case; the first character in each word in the title has to be capitalized.

#### **ORIGINAL RESEARCH ARTICLE:**

**An original research article typically should include the following in the order given below:**

Abstract

Keywords

Introduction

Materials and Methods

Results including Tables and/or Figures

Discussion

Conclusion

Acknowledgements [if any]

References

Appendixes [if necessary]

Abbreviations used [if necessary]

#### **Abstract**

Should be structured with the following headings for an original article: context, objective, materials and methods, results, discussion and conclusion and limited to 250 Words.

#### **Key words**

No more than six keywords are needed. Words appearing in the title should not be given as keywords. It is desirable to include the alternative words, if any under keywords e.g. the word 'famotidine'. They should be written left aligned, arranged alphabetically in 12 pt Times Roman, and the line must begin with the words Keywords boldfaced. A 12 pt space should separate the keywords from the affiliations.

#### **Introduction**

Description of the research area, pertinent background information, and the hypotheses tested in the study should be included under this section. The introduction should provide sufficient background information such that a scientifically literate reader can understand and appreciate the work to be described. Introduction should be precise and a detailed review of literature is

not at all required under this section. The specific aims of the project should be identified along with rationale for the specific experiments and other work performed. The introduction **MUST** include in-text citations including a few references pertinent to the background and justification for the study.

### **Materials and Methods**

Materials and/or subjects utilized in the study as well as the procedures undertaken to complete the work. The methods should be described in sufficient detail such that they could be repeated by a competent researcher. The sources of all major instruments and reagents used (kits, drugs, etc) must be given with parentheses. Illustrations and/or tables may be helpful in describing complex equipment or elaborate procedures. The statistical tool used to analyze the data should be mentioned. All procedures involving experimental animals or human subjects must accompany a statement on ethical approval from appropriate ethics committee along with the Institutional Animal Ethics Committee (IAEC) approval number.

### **Results**

Data acquired from the research with appropriate statistical analysis described in the methods section should be included in this section. The results section should highlight the important results obtained. Data should be organized into figures and tables. Qualitative as well as quantitative results should be included, if applicable.

### **Discussion**

This section should relate the results section to current understanding of the scientific problems being investigated in the field. Description of relevant references to other work/s in the field should be included here.

### **Conclusion**

This section allows the author to discuss the significance of the results - i.e. does the data support the hypotheses you set out to test? This section should end with new answers/questions that arise as a result of the author's work.

### **Tables and Figures**

#### **Tables**

Tables should be numbered with Roman numerals according to their sequence in the text, and have a short self-explanatory heading. Use SI units. Tables should include vertical rules, but horizontal rules should separate column headings from the content. Authors should keep in mind the page layout of the journal when designing tables. Tables that fit onto one printed page are preferred. Detailed explanations of symbols, units, and abbreviations should be given below the table.

General Guidelines for units and symbols - The use of the international System of Units (SI) is recommended.

Physical quantity	Base unit	SI Symbol
Length	Meter	M
Mass	Gram	G
	Kilogram	Kg
	microgram	µg
Time	Second	S
	Minute	Min
	Hour	H
	Day	D
	Week	W
	Month	Mo

	Year	Y
Amount of substance	Mole	Mol
Area	square meter	m <sup>2</sup>
Volume	cubic meter	m <sup>3</sup>
	Liter	L
	Milliliter	ml
	microliter	μl

Specification	Example	Correct style
Use lowercase for symbols or abbreviations,	Kilogram	kg
Symbols are not followed by a period, exception end of sentence	meter	m
Do not pluralize symbols	kilograms	kg
When numbers are printed symbols are preferred	100 meters	100 m
Space between number and symbol	2mol 10mg	2 mol 10 mg
Place a zero before a decimal		0.01
Decimal numbers are preferable to fractions		0.75
Space used to separate long number exception four-digit numbers		1 500 000 1000

**Chemical terminology** - The chemical nomenclature used must be in accordance with that used in the Chemical Abstracts.

**Symbols and abbreviations** - In vitro, in vivo, in situ, ex vivo, ad libitum, et al. and so on are two words each and should be written in italics. None of the above is a hyphenated word. All foreign language (other than English) names and words shall be in italics as a general rule. Words such as carrageenan-induced inflammation, paracetamol-induced hepatotoxicity, isoproterenol-induced myocardial necrosis, dose-dependent manner are all hyphenated.

**Biological nomenclature** - Names of plants, animals and bacteria should be in italics.

**Enzyme nomenclature** - The trivial names recommended by the IUPAC-IUB Commission should be used. When the enzyme is the main subject of a paper, its code number and systematic name should be stated at its first citation in the paper.

**Spelling** - These should be as in the Concise Oxford Dictionary of Current English.

#### **Illustrations (Figures)**

1. Upload the images in JPEG format. The file size should be within 4 MB in size while uploading.
2. Figures should be numbered consecutively according to the order in which they have been first cited in the text.
3. Labels, numbers, and symbols should be clear and of uniform size. The lettering for figures should be large enough to be legible after reduction to fit the width of a printed column.
4. Symbols, arrows, or letters used in photomicrographs should contrast with the background and should mark neatly with transfer type or by tissue overlay and not by pen.
5. Titles and detailed explanations belong in the legends for illustrations not on the illustrations themselves.

6. When graphs, scatter-grams or histograms are submitted the numerical data on which they are based should also be supplied.
7. The photographs and figures should be trimmed to remove all the unwanted areas.
8. If photographs of people are used, either the subjects must not be identifiable or their pictures must be accompanied by written permission to use the photograph.
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### **Table and Figure captions**

Figure captions/legends should include a statement at the end of each caption/legend about reproduction size (e.g. at full page width, at column width). They should be double spaced and typed in the journal format. Explanations should be brief and authors should keep in mind that captions/legends will be placed below figures.

### **Acknowledgements**

Those who have helped the authors carry out the study and/or prepare the manuscript but have not made significant intellectual contribution to deserve authorship must be acknowledged. Mention all applicable grants and other funding that supported the work.

### **REVIEW ARTICLES:**

It is expected that these articles would be written by individuals who have done substantial work on the subject or are considered experts in the field. A short summary of the work done by the contributor(s) in the field of review should accompany the manuscript.

**The prescribed word count is up to 3000 words including tables, references and abstract. The manuscript may have about 70 references.**

For a review article, abstract should be structured as follows: context, objective, methods (including data sources, study selection and data extraction), results and conclusion.

Authors submitting review article should include a section describing the methods used for locating, selecting, extracting, and synthesizing data. These methods should also be summarized in the abstract.

The journal expects the contributors to give post-publication updates on the subject of review. The update should be brief, covering the advances in the field after the publication of the article and should be sent as a letter to editor, as and when major development occurs in the field.

### **CASE REPORTS:**

New, interesting and rare cases can be reported. They should be unique, describing a great diagnostic or therapeutic challenge and providing a learning point for the readers. Cases with

clinical significance or implications will be given priority. These communications could be of up to 1000 words (including Abstract and references) and could be supported with up to 10 references. Case Reports could be authored by up to four authors and should have the following headings: Abstract (structured), Key-words, Introduction, Case report, Discussion, Reference, and Tables and Legends in that order.

#### **LETTER TO THE EDITOR:**

These should be short and decisive observations. They should preferably be related to articles previously published in the Journal or views expressed in the journal. They should not be preliminary observations that need a later paper for validation. The letter could have up to 500 words and 5 references. It could be generally authored by not more than four authors.

#### **Other:**

Editorial, Guest Editorial, and Commentary are solicited by the editorial board.

#### **References**

##### **In-text citation Correct / Acceptable Format**

Respiratory tract infection is one of the most important infectious diseases worldwide. This infection is the leading cause of morbidity and mortality in critically ill patients in developing countries.<sup>[1]</sup> Respiratory tract infections (RTIs), which involve the upper or lower respiratory tract, frequently occurs after birth.<sup>[2, 3]</sup> RTIs, such as sore throat, earache, laryngitis, common cold, otitis media, sinusitis, and mastoiditis, are the most frequently-occurred infections of all human diseases and have been frequently documented.<sup>[4-9]</sup>

##### **Incorrect / Not accepted**

Respiratory tract infection is one of the most important infectious diseases worldwide. This infection is the leading cause of morbidity and mortality in critically ill patients in developing countries [1, 2, 3]. Respiratory tract infections (RTIs), which involve the upper or lower respiratory tract, frequently occurs after birth. [4] RTIs, such as sore throat, earache, laryngitis, common cold, otitis media, sinusitis, and mastoiditis, are the most frequently-occurred infections of all human diseases and have been frequently documented (4, 5).

##### **Reference should follow the following style:**

References to journal papers should contain the name of the author(s) (with last name appearing first), year of publication, title of the paper, name of the journal, volume number, issue number, particular pages (pp).

The specific format is: <Last name of first author>.<First letter/s of First author>.<Last name of second author>.<First letter/s of second author>. <year of publication>. <Title of the research paper in italics with the first letter of the words in upper case and rest in lower case except in cases of pronouns, conjunction, prepositions etc.>. <Name of the journal>. <Volume>. <issue number if any to be put within parenthesis>: <particular pages>.



Similarly conference papers should mention the name of author(s), year of the conference, title of the paper, name of the conference, place in which the conference was held along with the page numbers of the paper in the proceedings of the conference.

References to books should contain name of the author, year of publication. title of the book, name of the publisher, edition number, chapter number and ISBN Number also can be quoted.

**Citation from Thesis:**

Kundur. D. 1999. *Multiresolution Digital Watermarking: Algorithms and Implications for Multimedia Signals*. Ph.D. Thesis, University of Toronto.

**Citation from Journal:**

Clifford. G. D. and Tarassenko. L. 2001. *One-pass Training of Optimal Architecture Auto-associative Neural Network for Detecting Ectopic Beats*. *Electron Letters*. 37(18): 1126–1127.

Burattini. B., Gnudi. G., Westerhof. N. and Fioretti. S.1987. *Total Systemic Arterial Compliance and Aortic Characteristic Impedance in the Dog as a Function of Pressure: A Model Based Study*. *Computational Biomedical Research*. 20: 154–165.

Amutabi. M. N. & Oketch. M. O. 2003. *Experimenting in Distance Education: The African Virtual University (AVU) and the Paradox of the World Bank in Kenya*. *International Journal of Educational Development*. 23(1): 57-73.

**Citation from Books:**

Thompson. D. ed., 1995. *The Concise Oxford Dictionary of Current English*. Oxford, UK: Oxford University Press, 9th ed. ISBN No.: 0987654.

Lindsay. D. 1999. *A Guide to Scientific Writing*, Melbourne, Chapter 2, Australia: Addison Wesley Longman Australia, 2nd ed. ISBN No.: 12345678.

White. H. Grover. S. K. Jonathan. M. 1993. *Economic Prediction using Neural Networks: The case of IBM Daily Stock Returns*. *Neural Networks in Finance and Investing*, Ch. 18. pp. 315–328. Probus Publishing Company, ISBN No.: 987789987.

**Citation from Website:**

Anonymous, unZign, “Tool for Evaluating a Variety of Watermarks”, <http://altern.org/watermark/>, (Browsing date: 23<sup>rd</sup> August 2020)

Publication of the University of Geneva (on digital watermarking): <[http://cuiwww.unige.ch/~vision/Publications/watermarking\\_publications.html](http://cuiwww.unige.ch/~vision/Publications/watermarking_publications.html)> (Browsing Date: 24<sup>th</sup> January 2006)

**Acknowledgements**

All messages and reviews sent electronically will be acknowledged automatically upon receipt.

### **Protection of Patients' Rights to Privacy**

Identifying information should not be published in written descriptions, photographs, sonograms, CT scans, etc., and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian, wherever applicable) gives informed consent for publication. Authors should remove patients' names from figures unless they have obtained informed consent from the patients. The journal abides by ICMJE guidelines:

- 1) Authors, neither the journals nor the publisher, need to obtain the patient consent form before the publication and have the form properly archived. The consent forms are not to be uploaded with the cover letter or sent through email to editorial or publisher offices.
- 2) If the manuscript contains patient images that preclude anonymity, or a description that has obvious indication to the identity of the patient, a statement about obtaining informed patient consent should be indicated in the manuscript.

### **Sending a revised manuscript**

The revised version of the manuscript should be submitted online in a manner similar to that used for submission of the manuscript for the first time. However, there is no need to submit the "First Page" or "Covering Letter" file while submitting a revised version. When submitting a revised manuscript, contributors are requested to include, the 'referees' remarks along with point to point clarification at the beginning in the revised file itself. In addition, they are expected to mark the changes as underlined or colored text in the article.

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Covering letter

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