

## Author Guidelines

### SUBMISSION PROCESS (Navigating the Path to Publication)

- **Initial Submission:** Authors should submit their manuscripts electronically through the journal's submission portal. Ensure that all required documents are included. **Upload: Article file and Title Page Format file**
- **Confirmation and Review:** Upon submission, authors will receive confirmation, and the manuscript will be reviewed to ensure it meets initial criteria.
- **Tracking Progress:** Authors can track the progress of their manuscript through the submission system and will be notified of any updates or decisions by email.

As part of the submission process, authors are required to check off their submission's compliance with all the following items, and submissions may be returned to authors that do not adhere to these guidelines.

### General Formatting Guidelines

To ensure a smooth peer-review process, authors are requested to strictly adhere to the following guidelines before submission. Manuscripts that do not meet these standards may be returned to the authors for correction.

#### 1. Submission Checklist

- **Originality:** The submission has not been previously published and is not under consideration by another journal.
- **File Format:** The manuscript file must be in **Microsoft Word (.docx)** format.
- **Blind Review:** The main manuscript file **must not** include any information that discloses the identity of the author(s) or their organization.
- **Title Page:** A separate document containing the Title, Author Names, Affiliations, and Contact Details must be uploaded [as per the format available in Downloads].

#### 2. Text Formatting

- **Font:** Use **10-point Times New Roman**.
- **Spacing:** **1.5-spaced** throughout the document.
- **Margins:** Use **1-inch (2.54 cm)** margins on all sides (standard for printing and review).  
(Header size: 1.25 cm) and (Footer Size: 1.25 cm)
- **Justification:** Justify the main text. Center-align the Title and the "References" heading.
- **Page Numbers:** Include page numbers in the bottom-right footer of each page.
- **Line Numbers:** Insert line number to whole manuscript and title page.

- **Language:** Use standard **British English (UK)** spelling and punctuation (e.g., *colour*, *analyse*, *programme*).

### 3. Scientific Conventions (Crucial for Agriculture)

- **Scientific Names:** Genus and species names must be **italicized** (e.g., *Triticum aestivum*, *Oryza sativa*).
- **SI Units:** All measurements must be reported in **International System of Units (SI)** (e.g., kg/ha, °C, dS/m).
- **Italics:** Use italics for non-English terms and scientific names; do not use underlining.

### 4. Headings & Hierarchy

- **Level 1 (Main Headings):** Bold, Left Aligned, Initial Caps (e.g., **Introduction, Materials and Methods, Results and Discussion, Conclusion**).
- **Level 2 (Sub-headings):** *Bold & Italic*, Left Aligned (e.g., *Statistical Analysis, Study Area, Satellite Data*).
- **Level 3 (Sub-sub-headings):** *Italic only*, Left Aligned (e.g., *Model Validation, Accuracy Assessment*). (*Note: Avoid using more than three levels of headings unless absolutely necessary*).

### 5. Figures, Tables, and Data

- **Placement:** To facilitate the layout process, all illustrations, figures, and tables should be placed **at the end of the manuscript file**, immediately following the **References** section. Do not embed them within the main text.
- **Numbering:** Serially numbered (e.g., Fig. 1, Table 1).
- **Captions:**
  - **Figures:** Place captions **below** the image (Center/left aligned, Times New Roman, Size 10).
  - **Tables:** Place captions **above** the table (Center/left aligned, Times New Roman, Size 10).
- **Quality:** Figures (charts, maps, remote sensing imagery) must be high-resolution (minimum 300 dpi) and legible at the final print size.
- **Table Formatting:** Place legends, footnotes, and statistical significance (e.g.,  $p < 0.05$ ) directly below the table.

### 6. Equations and Code (For Analytics Papers)

- **Equations:** Use the Microsoft Equation Editor for all mathematical formulas. Number equations consecutively in parentheses at the right margin: (1).

- **Code Snippets:** If your paper includes programming code (R, Python, GEE scripts), use a monospaced font like **Courier New (Size 9)** to distinguish it from the main text.

## 7. References (Author-Date Style)

- **In-Text Citations:** References should be cited in the text by **Author and Year**.
- **Single Author:** (Smith 2023)
- **Two Authors:** (Smith and Jones 2024)
- **Three or More Authors:** (Smith *et al.* 2023)
- **Multiple Citations:** Arrange chronologically, separated by a semicolon: (Gupta 2019; Patel 2021; Sharma 2023).

*Note: Unlike APA, there is no comma between the Author's name and the Year.*

- **Reference List:** The final reference list should be arranged **alphabetically** by the surname of the first author.

## 8. Keywords

- Include **5–6 keywords** immediately after the Abstract to assist with indexing and search engine visibility. Avoid repeating words already used in the Title.

# MANUSCRIPT PREPARATION

## A. TITLE PAGE FILE

To ensure a blind peer-review process, the Title Page must be submitted as a **separate file**. It should include the following information:

### a. Manuscript Details:

- **Type of Manuscript:** Specify clearly (e.g., Original Research Article, Review Article, Technical Note, Short Communication, or Data Article).
- **The Full Title:** Concise and informative (avoid abbreviations).
- **Author Details:** Names of all authors, designations, and institutional affiliations.
- **ORCID iDs:** The ORCID identification number for each author (strongly recommended for indexing).
- **Affiliation:** The specific department, university, or research station to which the work is attributed.

### b. Declarations (Mandatory):

**1. Data Availability Statement:** *Since JAA focuses on analytics, authors must describe where the data supporting their findings can be found.*

- *Examples:*
  - "The data that support the findings of this study are available from the corresponding author upon reasonable request."
  - "Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study."

**2. Acknowledgments:**

- Acknowledge anyone who contributed to the research but does not meet the criteria for authorship (e.g., language editing, field assistance, or technical support).
- *Note: Do not include acknowledgments in the main manuscript file, as this may reveal your identity.*

**3. Funding Source:**

- List all funding sources for the research. Include the full name of the funding agency and the grant number.
- *Example:* "This work was supported by the Indian Council of Agricultural Research (ICAR) [Grant Number: XYZ-123]."
- *Alternatively:* "The authors declare that no funds, grants, or other support were received during the preparation of this manuscript."

**4. Author Contributions:**

- Specify the exact contribution of each author to the work (using the CRediT taxonomy <https://credit.niso.org/> is encouraged).
- *Example:*
  - **Conceptualization:** [Author A, Author B]
  - **Data Curation & Analysis:** [Author B, Author C]
  - **Methodology:** [Author A]
  - **Writing – Original Draft:** [Author B]
  - **Writing – Review & Editing:** [All Authors]

**5. Conflict of Interest:**

- Declare any financial or personal relationships that could be viewed as influencing the work.
- *Example:* "The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper."

**B. MAIN MANUSCRIPT FILE**

## CATEGORIES OF MANUSCRIPTS

### 1. ORIGINAL RESEARCH ARTICLES

#### 1.1 Structure of Original Research Articles (up to 8000 words):

➤ **Divide your research article into clearly defined and numbered sections.**

- Abstract
- Keywords
- 1. Introduction
- 2. Data and methodology
- 3. Results and discussion
- 4. Conclusions
- 5. Reference list
- Tables
- Figures

#### 1.2 Details for Sections

To ensure your research is communicated effectively, please adhere to the following content guidelines for each section.

##### 1. Abstract

The Abstract is the most critical part of your paper for indexing and visibility.

- **Word Limit:** 250–300 words.
- **Content:** It must be a self-contained summary including:
  - **Background:** One sentence on the context or problem statement.
  - **Objective:** The primary goal of the study.
  - **Methods:** Brief description of the study area, data sources (e.g., Sentinel-2, field surveys), and analytical techniques (e.g., Random Forest, DSSAT model).
  - **Results:** The most significant findings with specific data (e.g., "Yield prediction accuracy improved by 15%").
  - **Conclusion:** The broader implication of the findings for agriculture.
- **Note:** Do not include references, undefined abbreviations, or equations in the abstract.

##### 2. Keywords

- Provide **5–6 relevant keywords** that are not already present in the Title.
- Use standard agricultural thesaurus terms where possible (e.g., *Agrometeorology*, *NDVI*, *Machine Learning*).

##### 3. Introduction

- **Context:** Start with the broad importance of the topic (e.g., climate change impact on wheat).
- **Literature Review:** Critically review relevant and recent literature to identify the **Research Gap**. What is missing in the current knowledge?
- **Rationale:** Explain *why* your specific approach (e.g., using a new AI model or a specific remote sensing index) is necessary.
- **Objective:** Clearly state the specific objectives of the study at the end of this section.

#### 4. Data and Methodology

This section must provide sufficient detail to allow another researcher to reproduce your work.

- **Study Area:** Describe the location with geographical coordinates (Latitude/Longitude), climatic conditions, and soil type. A map is highly recommended.
- **Data Sources:**
  - **Satellite Data:** Specify the sensor (e.g., Landsat 8 OLI), spatial resolution, revisit time, and acquisition dates.
  - **Field Data:** Describe sampling methods, instruments used, and sample size.
  - **Software:** Mention specific software or libraries used (e.g., ArcGIS 10.8, Python scikit-learn, Google Earth Engine).
- **Methodology:**
  - Describe the experimental design or modeling framework.
  - Detail the algorithms, formulas, or statistical tests used.
  - For analytics papers, a **flowchart** of the methodology is strongly encouraged.

#### 5. Results and Discussion

- **Results:** Present your findings clearly using text, tables, and figures. Do not repeat data from tables in the text; instead, interpret the trends (e.g., "Table 1 shows a significant correlation...").
- **Discussion:** This is the most important section.
  - **Interpret:** What do the results *mean*? (e.g., "The high RMSE suggests the model underestimates biomass during drought").
  - **Compare:** Contrast your findings with previous studies (e.g., "Unlike Smith (2020), we found that...").
  - **Limitations:** Be honest about the limitations of your study (e.g., limited ground truth data).

#### 6. Conclusions

- Summarize the main findings in relation to the study's objectives.
- Highlight the **practical contribution** to the field of Agrosystems or Analytics.

- Suggest future research directions.
- *Note:* Do not simply repeat the Abstract or Introduction.

## 7. References

- Ensure every citation in the text is listed in the references and vice-versa.
- Follow the **APA 7th Edition** style (Author-Date) as specified in the "General Formatting Guidelines."

### A. Journal Article

- **Format:** Author, A. A., & Author, B. B. (Year). Title of the article. *Title of the Journal*, Volume(Issue), Page range.
- **Example:**

Bhattarai, N., Quackenbush, L.J., Im, J., & Shaw, S.B. (2017). A new optimized algorithm for automating endmember pixel selection in the SEBAL and METRIC models. *Remote Sensing of Environment*, 196, 178–192.

### B. Book

- **Format:** Author, A. A. (Year). *Title of the book*. Publisher.
- **Example:**

Monteith, J. L., & Unsworth, M. H. (2013). *Principles of environmental physics* (4<sup>th</sup> ed.). Academic Press.

### C. Chapter in an Edited Book

- **Format:** Author, A. A. (Year). Title of the chapter. In E. E. Editor (Ed.), *Title of the book* (pp. xx–xx). Publisher.
- **Example:**

Patel, N. R. (2022). Remote sensing applications in agriculture. In S. K. Saha (Ed.), *Geospatial technologies for crop management* (pp. 55–78). Springer.

### D. Conference Proceeding

- **Format:** Author, A. A. (Year). Title of paper. *Title of Proceedings* (pp. xx–xx). Publisher.
- **Example:**

Das, B. (2023). IoT-based soil moisture monitoring system. *Proceedings of the IEEE International Conference on Smart Agriculture* (pp. 112–118). IEEE.

### E. Thesis / Dissertation

- **Format:** Author, A. A. (Year). *Title of thesis* [Doctoral dissertation, University Name]. Repository Name.
- **Example:**

Joshi, P. (2021). *Assessment of hydrological models for watershed management* [Doctoral dissertation, Junagadh Agricultural University]. KrishiKosh.

## F. Software / Code

- **Format:** Developer, A. A. (Year). *Title of Software* (Version) [Computer software]. Publisher. URL
- **Example:**

R Core Team. (2023). *R: A language and environment for statistical computing* (Version 4.3.0) [Computer software]. R Foundation for Statistical Computing.

## 8. Tables

- Tables should be self-explanatory. The title should describe the table's content fully.
- Use standard units (SI) in column headers.
- Notes/Legends: Explain abbreviations or significance levels (e.g., \* $p < 0.05$ ) immediately below the table.

## 9. Figures

- **Resolution:** Minimum 300 dpi for images; 600 dpi for line art.
- **Legibility:** Ensure axis labels, legends, and text inside maps/charts are readable when the image is resized for the journal page.
- **Captions:** Provide a descriptive caption for each figure. For maps, include a North arrow and Scale bar.

## 2. REVIEW ARTICLES

Review articles should provide an authoritative, balanced, and critical survey of recent developments in a specific research area. We welcome both **Narrative Reviews** and **Systematic Reviews** (following PRISMA guidelines).

### 2.1 Structure of Review Articles

(Word Limit: Up to 12,000 words, excluding references)

- **Abstract**
- **Keywords**
- **Introduction** (Scope and Rationale)
- **Methodology** (Literature Search Strategy – *Optional for narrative, Mandatory for systematic*)
- **Main Body** (Organized by Themes/Topics)
- **Critical Discussion & Synthesis**
- **Future Research Directions**

- **Conclusion**
- **References** (Typically 50–100+ citations)

## 2.2 Details for Sections

### 1. Abstract

- **Word Limit:** 300 words.
- **Content:** A concise summary of the review's scope. It must clearly state:
  - The **purpose** of the review.
  - The **main themes** or technologies covered (e.g., "This review compares optical and microwave remote sensing for soil moisture...").
  - The **major conclusions** or gaps identified.

### 2. Introduction

- Define the topic and its importance to agricultural systems or analytics.
- Explain the **need for this review**. (e.g., "While many reviews exist on crop modeling, few focus on the integration of AI with biophysical models...").
- Clearly outline the objectives and the boundaries of the review (what is included vs. excluded).

### 3. Main Body (Thematic Headings)

- Do not organize the review chronologically (e.g., "In 2010... then in 2012...").
- **Organize by Concepts/Themes:** Use Level 2 and Level 3 headings to structure the text logically.
  - *Example:* Instead of "Literature Review," use headings like: ***Machine Learning Approaches, Hyperspectral Data Challenges, Validation Protocols.***
- **Comparative Analysis:** Authors are strongly encouraged to use **Comparative Tables** to summarize the pros/cons of different studies, algorithms, or sensors.

### 4. Future Research Directions (Crucial)

- This is the most valuable section for readers.
- Identify the **Knowledge Gaps**. What problems remain unsolved?
- Propose specific areas where future research should focus (e.g., "Need for high-resolution thermal data in smallholder farming").

### 5. Conclusion

- Summarize the "State of the Art."
- Provide a final verdict on the technologies or methods reviewed.

### 6. References

- Follow the **APA 7th Edition** style.
- Review articles typically cite **50 to 150 references**. Ensure at least 60% of references are from the last 5–10 years to ensure currency.