

**University of Khartoum Engineering Journal (UofKEJ)**  
**Guidelines for Authors – Technical and Research Papers**  
**(Revised Edition – 2025)**

### 1. Journal Scope and Objectives

The University of Khartoum Engineering Journal (UofKEJ) is a peer-reviewed, open-access journal that publishes high-quality papers in all branches of engineering and applied sciences, with particular emphasis on solving real engineering problems in Sudan and the surrounding region.

The journal encourages:

- Applied research that addresses the needs of local industries, infrastructure, and communities.
- Innovative engineering solutions for energy, water, transportation, ICT, and manufacturing sectors.
- Interdisciplinary approaches linking technology, environment, and socio-economic development.
- Case studies and design projects demonstrating the application of engineering principles in the Sudanese context.

### 2. Types of Papers and Their Specifications

| Type of Paper                        | Word Count         | Page Limit | Figures/Tables (Max)          | Description                                                                                                                                                                         | Writing Style                                                                                                |
|--------------------------------------|--------------------|------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Full Research Paper                  | 5,000–8,000 words  | ≤ 15 pages | 8 (figures + tables combined) | Comprehensive and original contribution to engineering science or application. Must include theoretical framework, methodology, analysis, and clear connection to Sudanese context. | Formal, academic, and analytical. Write in clear, precise English using technical terminology appropriately. |
| Review Article                       | 6,000–10,000 words | ≤ 20 pages | 10                            | Critical and integrative review of the state-of-the-art in a specific field (e.g., renewable energy systems in Sudan). Should identify knowledge gaps, trends, and local relevance. | Balanced, evidence-based synthesis; emphasize logical flow, proper citation of references, and objectivity.  |
| Technical Note / Short Communication | 2,000–3,500 words  | ≤ 8 pages  | 4                             | Brief description of a novel technique, design, prototype, or field observation. Often used for pilot projects, case studies, or preliminary results.                               | Concise and focused; highlight innovation, methodology, and immediate practical relevance.                   |

Note: Figures, tables, and equations count toward the total page limit. Each figure or table should be self-contained with clear captions, units, and labels.

### 3. Manuscript Organization and Structure

Each submission should include the following components in order:

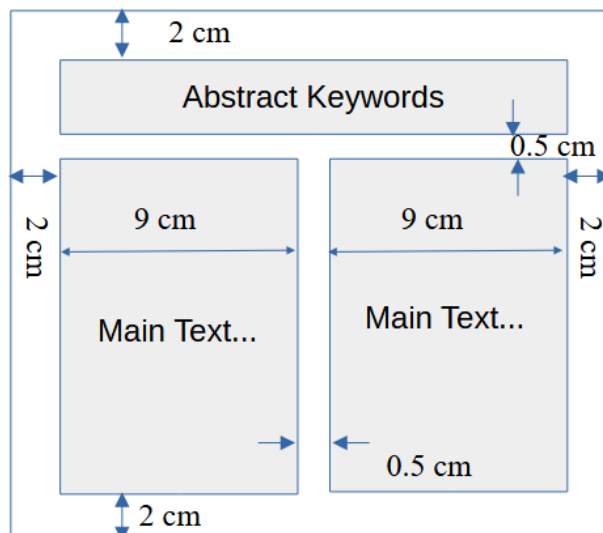
1. Title
  - Clear, specific, and limited to 15 words.
  - Avoid abbreviations unless widely recognized (e.g., PV, ICT).
2. Authors and Affiliations

- Include full names, academic titles, institutional affiliations, city, country, and email addresses.
  - Corresponding author should be clearly identified with an asterisk (\*).
3. Abstract (150–250 words)
    - Summarize the objectives, methods, key results, and relevance to Sudanese engineering problems.
    - Avoid formulas, citations, and abbreviations not defined in the text.
  4. Keywords (4–6)
    - Include one or more contextual keywords (e.g., Sudan, renewable energy, Khartoum, Nile basin).
  5. Introduction
    - Define the engineering problem and its significance to Sudan.
    - Review relevant literature and identify knowledge or application gaps.
  6. Methodology / Materials and Methods
    - Describe procedures, design parameters, simulation tools, or experimental setups.
    - Include equations, diagrams, and references to standards (e.g., IEC, IEEE).
  7. Results and Discussion
    - Present data clearly using tables and figures.
    - Interpret findings, compare with previous studies, and highlight implications.
  8. Relevance to Sudan / Application Section
    - Explain how the study addresses a national or regional engineering challenge.
    - Include socioeconomic or policy relevance when applicable.
  9. Conclusion and Recommendations
    - Summarize key results, engineering insights, and suggestions for future research or implementation.
  10. Acknowledgment (optional)
    - Mention financial or institutional support.
  11. References (IEEE Style)
    - Use numerical citation in brackets [1], [2], [3].
    - Arrange in order of appearance.
    - Ensure consistency in author names, journal titles, and DOIs.

#### 4. Formatting and Style Requirements

| Element              | Specification                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------|
| File Format          | MS Word (.docx) or LaTeX (.tex + compiled PDF)                                                   |
| Page Layout          | A4 size, Orientation: <i>Portrait</i>                                                            |
| Margins              | 20 mm (all sides)                                                                                |
| Title                | Times New Roman, 15-pt bold, centered, single column single line spacing                         |
| Abstract             | Times New Roman, 10-pt justified, single column single line spacing                              |
| Keywords             | Times New Roman, 9-pt Italic, single column single line spacing                                  |
| Columns              | Two columns, justified text, Width 88 mm, Spacing: 5 mm. Ensure “Equal column width” is checked. |
| Font                 | Times New Roman, 10 pt, single line spacing.                                                     |
| Main sections        | Numbered (1., 2, ...) – uppercase, bold, centered. Times New Roman, 10 pt                        |
| Sub section Headings | Numbered (1.1, 1.2...) – Bold, First letter uppercase, Times New Roman, 10 pt                    |
| Equations            | Centered, numbered consecutively, numbered flush right (e.g., (1)).                              |
| paragraph spacing    | Before: 0 pt, After: 0 pt. Indentation: First line = 35 mm.                                      |

|                    |                                                               |
|--------------------|---------------------------------------------------------------|
| Figures and Tables | Sequential numbering; captions below figures, above tables    |
| Captions           | Times New Roman, 9-pt below figures, above tables             |
| Units              | SI units only                                                 |
| Language           | English (Arabic abstract optional)                            |
| References         | Times New Roman, 9-pt, IEEE style, justified, single spacing. |



## 5. Peer Review and Editorial Process

- Every submission is double-blind peer-reviewed by two or more reviewers.
- The review period is approximately one month.
- The total processing and publication time is around three to six months.
- Authors may be asked to revise based on reviewers' comments.
- Accepted papers receive a Digital Object Identifier (DOI) and are published under open access.

## 6. Reviewer Nomination Requirement

Authors must nominate five potential reviewers during submission.

Provide details in the following format:

| Reviewer | Title & Affiliation             | Country   | Email          | Area of Expertise |
|----------|---------------------------------|-----------|----------------|-------------------|
| 1        | Prof./Dr. [Name], [Institution] | [Country] | [email@domain] | [Field/Topic]     |
| 2        | ...                             | ...       | ...            | ...               |
| 3        | ...                             | ...       | ...            | ...               |
| 4        | ...                             | ...       | ...            | ...               |
| 5        | ...                             | ...       | ...            | ...               |

Guidelines:

- Reviewers must be independent experts.
- They should have relevant expertise and recent publications in the subject area.
- The Editorial Board may or may not select from the nominated list.

## 7. Ethical and Quality Standards

- Plagiarism limit:  $\leq 15\%$  (checked via Turnitin or similar).
- Originality: The work must not be under review elsewhere.

- Data integrity: Ensure traceable and verifiable results.
- Authorship: Only those who contributed significantly should be listed.
- Conflict of interest: Must be declared.

## **8. Thematic Areas of Interest (Priority Topics for Sudan)**

The *University of Khartoum Engineering Journal (UofKEJ)* welcomes high-quality original research papers, technical reports, and review articles addressing engineering problems relevant to Sudan and similar developing contexts. Priority is given to papers that demonstrate innovation, practical applicability, and contribution to sustainable reconstruction, development, and technological transformation.

### **A. Energy and Power Systems**

- Renewable and solar energy systems and microgrids.
- Design, optimization, and integration of photovoltaic and hybrid systems.
- Power generation, transmission, and rural electrification in post-conflict areas.

### **B. Water, Environment, and Agriculture**

- Water resources management, irrigation, and pumping systems.
- Wastewater treatment, desalination, and sustainable water technologies.
- Environmental engineering and adaptation to climate change.

### **C. Civil, Structural, and Construction Engineering**

- Infrastructure design and rehabilitation and post-war reconstruction technologies.
- Design of sustainable and resilient buildings, bridges, and roads.
- Smart materials, geotechnical innovation, and disaster risk reduction.

### **D. Mechanical, Production, and Industrial Engineering**

- Design, manufacturing, and maintenance for local industries.
- Automation, mechatronics, and production optimization.
- Energy-efficient systems and industrial productivity.

### **E. Electrical, Electronics, and Communication Engineering**

- Power electronics, control systems, and smart grids.
- Communication and digital systems for governance, education, and rural connectivity.
- Embedded systems and signal processing applications.

### **F. Computer, Artificial Intelligence, and Data Systems**

- AI and machine learning applications in energy, health, and industry.
- Software, cybersecurity, and digital transformation of engineering education.
- Data systems for decision support and smart infrastructure.

### **G. Chemical, Petroleum, and Mining Engineering**

- Process design, optimization, and materials development.
- Sustainable petroleum and mining technologies.
- Industrial waste management and pollution control.

### **H. Architecture and Urban Planning**

- Climate-responsive and sustainable architecture.
- Urban design for post-war recovery and social resilience.
- Integration of heritage preservation with modern development.

### **I. Engineering Management, Innovation, and Policy**

- Project management, productivity, and industrial quality systems.
- Innovation ecosystems, entrepreneurship, and technology transfer.

- Engineering education, policy reform, and institutional capacity-building.
- J. Geomatics and Geomechanics Engineering
  - mapping the future,
  - autonomous and navigation systems
  - geomatics and digital innovation,
  - Integration of Enterprise GIS Systems

Submissions should emphasize the Sudanese and regional relevance of engineering challenges and solutions. Interdisciplinary papers linking engineering with economics, environment, and social development are particularly encouraged.

## 9. Submission Procedure

- Submit online through the Open Journal Systems (OJS) portal:  
 <https://uofkej.uofk.edu/index.php/uofkej>
- Include a cover letter with:
  - Paper title and type (Research / Review / Technical Note).
  - Summary of contribution and relevance to Sudan (if available).
  - Reviewer nomination list (five reviewers).
  - Declaration of originality and conflict of interest.

## 10. Writing Style Recommendations

- Clarity: Write short, precise sentences; avoid jargon.
- Coherence: Maintain logical flow between sections.
- Objectivity: Present results factually, not subjectively.
- Figures and Diagrams: Prefer vector graphics (e.g., .eps, .svg, .pdf). Use consistent color schemes.
- Numbers: Use significant figures appropriately; align decimals in tables.
- References: Cite recent and relevant literature (preferably within the last 10 years).
- Language Check: Proofread for grammar and consistency before submission.