IJTEC Reviewer's Guide: Manuscript Evaluation Checklist

Purpose: This guide is designed to help reviewers provide consistent, constructive, and ethically sound evaluations of manuscripts submitted to the *International Journal of Tropical Engineering and Computing (IJTEC)*. It emphasises rigour, reproducibility, clarity, and emerging standards such as AI tool transparency.

A. Section-by-Section Evaluation Table

Each section includes evaluation points, a weighted score (0–5), and structured reviewer prompts. Use the weights to inform your overall recommendation.

S/n	Section	What to Check	Best Practice Standard	Red Flags / Required Action	Reviewer Notes (Guided Prompts)	Yes/ No	Score (0–5)
1	**Title & Author Details**	Clarity, specificity, author identity	✓ ≤18 words, technical focus ✓ Full author names ✓ ORCID, institutional emails, country code phone numbers	⚠ Vague, generic, or misleading title ⚠ Missing ORCID or unclear affiliation 🔴 Reject if authorship is unverifiable	*Does the title reflect the content? Are all authors clearly identified with institutional credentials?*		/5
2	**Abstract (Structured, 150–250 words)**	IMRaD format; 4–5 keywords	✓ Background, method, results, impact ✓ Quantified outcomes ✓ 4–5 relevant keywords	⚠ Missing structure or metrics ⚠ Unclear objectives 🔴 Reject if incoherent or exceeding word count	*Is the abstract self-contained and informative? Are the key outcomes and methods evident?*		/5
3	**Graphical Abstract**	Technical clarity and visual summary	✓ ≥300 dpi, minimal text ✓ Reflects core	⚠ Low resolution, overly text-based ⚠ Visually	*Does the visual aid add clarity? Is it technically accurate and high-quality?*		/5

			result visually ✓ Placed before Introduction	ambiguous 🔴 Request replacement or remove		
4	**Introduction**	Gap, motivation, novelty, and roadmap	✓ Recent references (2020–2024) ✓ Novelty clearly articulated ✓ Outline of structure	⚠ Generic claims ⚠ Weak literature grounding 🔴 Revise if lacks motivation or roadmap	*Is the research gap clearly identified? Does the intro justify the study?*	/5
5	**Methods**	Data integrity, model setup, reproducibility	✓ FAIR data principles ✓ Full preprocessing steps ✓ Hyperparameters + 5-fold CV or equivalent validation ✓ p-values < 0.05 when applicable	⚠ Missing critical steps/code ⚠ No baseline comparisons 🔴 Request methods clarification or data/code deposit	*Can another researcher replicate the study based on this section?*	/5
6	**Results & Discussion**	Visuals, quantitative findings, critical insight	✓ Statistical metrics: CI, p-values, AUC ✓ Visual aids with labels/error bars ✓ Limitations and scope discussed	⚠ Lack of numerical evidence ⚠ Results unlinked from literature 🔴 Major revision for missing or flawed analytics	*Are results statistically and contextually sound? Are limits acknowledged?*	/5
7	**Conclusion**	Real-world application, policy/scientific impact	✓ No new data ✓ Summary aligns with findings ✓ Quantifiable impact (e.g., savings, efficiency)	⚠ Unsupported claims ⚠ Overly vague or philosophical 🔴 Refocus or condense	*Does the conclusion clearly summarize and contextualize the study's implications?*	/5
8	**Ethics & Reproducibility**	AI/editorial tools,	✓ IRB/GDPR/ethics noted	⚠ Omission of ethical/compliance	*Are ethical standards upheld? Can*	/5

		IRB/GDPR, data/code access	✓ GitHub, Zenodo, NDA or public links ✓ Disclosure of AI tools (e.g., ChatGPT)	details ⚠ Undisclosed automated contributions 🔴 Escalate if suspicious	*reviewers/auditors access supporting data/code?*		
9	**References**	Recency, formatting, validity	✓ ≥50% from last 5 years ✓ APA 7 or IEEE compliant ✓ DOIs or active links for all sources	⚠ Predatory/outdated references ⚠ Inconsistent format 🔴 Major format or credibility revision	*Are sources credible, recent, and properly formatted?*		/5
10	**Declarations**	Authorship integrity, conflicts of interest (COI), AI usage	✓ COI and AI tool use declared ✓ Author contributions and originality affirmed	⚠ Missing statements ⚠ Undeclared third-party or automated content 🔴 Request disclosure or clarification	*Is authorship clearly and ethically presented?*		/5

B. Scoring & Decision Table

Use the total score (max = 50) and section-specific concerns to guide your recommendation.

Score	Interpretation	Action
43–50	Excellent in clarity, reproducibility, ethics, and technical novelty	✅ Accept (minor or no revision)
33–42	Scientifically valid but requires improvement in clarity, structure, or reproducibility	🔄 Major Revision
20–32	Lacks rigor, novelty, or ethical completeness	❌ Reject or recommend resubmission
<20	Serious flaws in concept, ethics, or validation	❌ Reject outright

C. Reviewer Details

Please complete:

- **Reviewer Name:** _____
- **Affiliation:** _____
- **Email:** _____
- **Date:** _____
- **Manuscript Title:** _____
- **Manuscript ID (if applicable):** _____

D. Recommendation

(✓ one)
- Accept
- Minor Revision
- Major Revision
- Reject

E. Comments to Editor (Confidential)

Highlight any ethical concerns, conflict of interest, or doubts about authorship/integrity.

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F. Comments to Authors

Be constructive and specific. Comment on novelty, reproducibility, ethical transparency, and how the manuscript could be improved.

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Optional Addenda
- For **interdisciplinary papers**, reviewers may adapt section weighting and apply qualitative judgment.
- For **early-stage concepts or proof-of-principle work**, sections 5–7 may be more lenient if scientific reasoning is sound and well-motivated.