Reviewer Guidelines

Please rank each Criteria on a Scale of 1-10 according to the following rubric.

SCORE GUIDELINES

Reviewers are required to apply the following guidelines when scoring each of the six SAE Judgment Bases (below score chart), with the desired outcome of reducing variability in scores among reviewers for a given paper, while spreading out scores for papers of varying quality across the full 10-point scale.

Note that the Session Organizer and/or reviewer will reassess and reassign scores once the author modifies and submits a revised manuscript; therefore, an initial score of say, 6, does not necessarily preclude acceptance or publication in the proceedings journal since the initial score may improve and be overwritten upon re-submission and re-review.

Score	Guidelines
10	Exemplary; no weaknesses; top quality
9	Acceptable; no significant weaknesses; suggested revisions possibly optional; questions posed in Judgment Bases addressed in manner consistent with ratings of "Approved" and recommended for proceedings journal publication
8	Most likely acceptable with minor corrections; recommended for proceedings journal publication
7	Possibly acceptable with corrections of many minor weaknesses or one or more major weaknesses; revision(s) required; possibly recommended for proceedings journal publication
5 – 6	Major revisions required to be considered for approval; moderate to substantial revisions required prior to approval; quality as-is insufficient for proceedings journal publication but higher scores on revision possibly considered for proceedings journal publication
3 – 4	Multiple major weaknesses; extensive revision required to make paper acceptable; unlikely to reach proceedings journal quality
1 – 2	Many major weaknesses; questions posed in Judgment Bases are inadequately addressed; required level of revision likely too substantial to overcome; score also applies if text lacks sufficient clarity to score; not proceedings journal quality

JUDGMENT BASIS DEFINITIONS

Long-term reference value (Archival)

- Would this paper's content still be relevant and likely to be cited in future work?
- Are the results and interpretation of lasting scientific value?
- Is the topic important to the field?
- Does the paper strengthen or extend the state of the art?

Technically new, innovative, or a constructive review (Innovative)

- Does the subject matter have an interested audience today?
- Are ideas/information and methods worthwhile, new, or creative?
- Is the author the source of new information?
- Are analytical, numerical, or experimental results and interpretation original?
- Is the impact of the results clearly stated?

Professional integrity (Integrity)

- Is the paper free from commercialism?
- Is the paper free from personalities and bias?
- Is the paper clear and balanced?
- Is prior work of others adequately credited?
- If author claims first use of technology, is claim valid?
- Does the author avoid disparaging competitive methods or products?
- Are references to previous work presented constructively, in a fair and balanced way?
- Does the author follow appropriate regulations or ethical guidelines (see end of document)?

Clear presentation (Presentation)

- Does the introductory section explain motivation and orient the reader?
- Does the paper describe what was done, how it was done, and the key results?
- Does the paper stay focused on its subject?
- Are tables and figures clear, relevant and correct?
- Are the concepts clearly presented?
- Is the paper logically organized?
- Are titles and keywords used appropriately?
- Is the paper's length appropriate to its scope?
- Does the author demonstrate knowledge of basic composition skills, including word choice, sentence structure, paragraph development, grammar, punctuation, spelling, and citation of references?

Quality of data and validity of analytical techniques (Quality)

- Is the paper technically sound?
- Does the paper evaluate the strengths and limitations of the work described?
- Are performance metrics clearly stated?
- Are results clearly described?
- Is relevant previous research discussed adequately?
- Are all assumptions referenced by previous proven works?

Soundness of conclusions (Conclusions)

- Are the claims of the paper firmly established?
- Are conclusions sound theoretically or experimentally?
- Are conclusions supported by the facts presented?

Rating / Criteria	Unacceptable (≤ 6/10)	Possibly Acceptable with Major Corrections (7/10)	Likely Acceptable with Minor Corrections (8/10)	Acceptable (9/10)	Exemplary (10/10)
Innovative	Paper does not address a new research topic. **And:** Paper does not provide a new approach to a relevant research topic.	Paper barely addresses a new research topic. **Or:** Paper barely provides a new approach to a relevant research topic.	Paper inadequately addresses a new research topic. **Or:** Paper inadequately provides new approach to a relevant research topic.	Paper adequately addresses a relevant new research topic. **Or:** Paper adequately provides new approach to a relevant research topic.	Paper completely addresses a relevant new research topic. **Or:** Paper creatively provides new approach to a relevant research topic.
Presentation	Paper is not concise, clear, or logically organized. **Or:** Paper is hard to read and full of language errors.	Paper needs major corrections to be concise, clear, and logically organized. **Or:** Paper needs major corrections to become readable and to correct language errors.	Paper needs minor corrections to be concise, clear, and logically organized. **Or:** Paper needs minor corrections to become readable and to correct language errors.	Paper is concise, clear, and logically organized. **And:** Paper is readable and free of language errors.	Paper is superbly concise, clear, and logically organized. **And:** Paper is easy to read and well written and describes what was done and the key results.

Rating / Criteria	Unacceptable (≤ 6/10)	Possibly Acceptable with Major Corrections (7/10)	Likely Acceptable with Minor Corrections (8/10)	Acceptable (9/10)	Exemplary (10/10)
Conclusions	Conclusions are unclear and flawed. **Or:** Conclusions are illogical or unsubstantiated.	Conclusions are barely clear or sound or supported. **Or:** Conclusions are barely logical or substantiated.	Conclusions are inadequately clear or sound or supported. **Or:** Conclusions are inadequately logical or substantiated.	Conclusions are clear and well established and supported. **And:** Conclusions are logical and substantiated.	Conclusions are very clear and well established and supported. **And:** Conclusions are extremely logical and well-substantiated.
Integrity	Paper contains significant scientific imbalance or does not acknowledge previous contributions. **Or:** Paper has significant bias/ commercialism.	Paper contains some scientific imbalance or barely acknowledges previous contributions. **Or:** Paper has some bias or commercialism.	Paper contains some scientific imbalance or inadequately acknowledges previous contributions. **Or:** Paper has minor bias or commercialism.	Paper has no scientific imbalance and adequately acknowledges previous contributions. **And**: Paper has no bias or commercialism.	Paper is scientifically balanced and completely acknowledges previous contributions. **And:** Paper is clear of any bias or commercialism.
Quality	Paper is full of technical and documentation gaps. **Or:** Paper does not meet quality expectations.	Paper needs major corrs to close technical/ documentation gaps. **Or:** Paper needs major corrections to meet quality expectations.	Paper needs minor corrs to close technical/ documentation gaps. **Or:** Paper needs minor corrections to meet expectations.	Paper is free of technical and documentation gaps. **And:** Paper supports results and discusses previous research.	Paper is technically comprehensive and very well documented. **And:** Paper clearly supports results and discusses previous research.

Rating / Criteria	Unacceptable (≤ 6/10)	Possibly Acceptable with Major Corrections (7/10)	Likely Acceptable with Minor Corrections (8/10)	Acceptable (9/10)	Exemplary (10/10)
Archival	Paper is not on the forefront of research in the field. **Or:** Paper does not have sufficient contribution to advance the state of knowledge in the field.	Paper is fairly on the forefront of research in the field. **But:** Paper does not have a clear contribution to advance the state of knowledge in the field.	Paper is on the forefront of research in the field. **But:** Paper has insufficient contribution to advance the state of knowledge in the field.	Paper is on the forefront of research in the field. **And:** Paper has sufficient contribution to advance the state of knowledge in the field.	Paper is on the leading edge of research in the field. **And:** Paper has a major contribution to advance the state of knowledge in the field.

Institutional Review Boards

SAE International is committed to ethical and compliant research and publications. Each author has the sole responsibility to confirm approval from the applicable Institutional Review Board (IRB) where necessary and required. All submissions to SAE publications should receive IRB approval in the following cases, including, but not limited to:

- Research involving human subjects: in order to assure the protection of the rights and welfare of human subjects and to ensure the institution and researchers/investigators have complied with applicable regulations
- Any information or product that is subject to FDA approval, testing, or regulation
- Any information or product that is required to follow Department of Health and Human Services (specifically Office for Human Research Protections) guidelines and regulations
- Any information that is part of an application for a product, research, or marketing permit subject to FDA inspection or regulation

IRBs may grant exceptions to these requirements, which the author is required to provide upon request by the Publisher.