

**ASME POSITION STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE (AI) FOR ASME
EXTERNAL CONTENT**

(Including Journals, Conference Proceedings, and other ASME Publications)

I. PREFACE

- A. Article C2.1 1 of the ASME Constitution states in part: “The purposes of this Society are to: Encourage original research... Promote the exchange of information among engineers and others... and promote a high level of ethical practice.”
- B. Society Policy P-12.15 (Intellectual Property Rights) discusses publication rights and authorship of papers and ethical acknowledgment of authorship.

II. PURPOSE

- A. This policy sets forth conditions for incorporation of the output of Artificial Intelligence (AI) into ASME External Content and Original Research.
- B. ASME restricts certain uses of AI tools in the creation of external content, as described in this policy.

III. DEFINITIONS AND DESCRIPTIONS

For the purposes of this policy, the following definitions are used:

- A. External Content includes, but is not limited to, any document, recording, audio-visual material, spoken word, computer program, database, presentation, arts, tests, advertisement, webpage, or other works or materials, and is created by an Author for publication, distribution, or integration by ASME. This also applies to any supplemental materials, errata, addendums, or other materials affiliated with such content. Examples of such content includes journal articles, conference proceedings, articles in ME Magazine, and other publications of the Society.
- B. Internal Content is created by ASME staff exclusively for the internal use by ASME staff. If that content is made available by ASME to external parties, it is then subject to the provisions of this policy for External Content.

- C. An Author is any person(s) creating External Content, in whole or in part, including, but not limited to, book, journal and conference paper Authors, course developers and/or instructors, conference and/or lecture speakers, Authors of [or contributors to] standards actions, contractors, ASME staff, and any other person creating content for publication, distribution, or integration by ASME.
- D. Original Research is External Content that presents a new finding in science, engineering, or other fields.
- E. Artificial Intelligence (AI) are technologies that apply advanced analysis and logic-based techniques, including machine learning (ML), to interpret events, support and automate decisions, and ultimately take actions based on the interpreted information.
- F. AI Tool refers to any computer program using AI (as defined above). These include, but are not limited to, a computer program or technique using [large] language model (LLM), or natural language processing (NLP), or supervised or unsupervised machine learning (ML), or chatbots, or similar other technologies. ASME does not consider basic tools, such as simple “rules-based” spell-check in word processing, to be AI Tools; therefore, this policy does not apply to such rules-based tools.
- G. Personal Information refers to any information that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular individual or household, or such other definition of personal information or personal data provided by applicable privacy laws.
- H. Sensitive Information – refers to ASME information or information owned by third parties such as the Author’s employer including: (i) Personal Information; (ii) material non-public information, as defined by the Securities and Exchange Commission; (iii) passwords, application programming interface (API) keys, or any other secrets that would allow an otherwise unauthorized actor to gain access to ASME or a third party’s systems or data; and (iv) Data that is “confidential information” of ASME or a third party, as defined by the owner’s employee handbooks, applicable employment agreements or service agreements, and other ASME Data or third party data that is designated as confidential or that a reasonable person would understand to be confidential including, but not limited to business strategies, internal communications, financial information, intellectual property, and trade secrets.

IV. POLICY

A. General Provisions

1. Authors are wholly responsible for their External Content and its integrity, including how AI Tools affect (in any way) the External Content. Authors represent and warrant that, if they have used an AI Tool at any point in the process of creating the External Content, they have reviewed the output of the tool for accuracy.
2. The submission of External Content to ASME for publication indicates acceptance of accountability by the Author for their use of AI Tools in preparation of the External Content, and acceptance of the full terms of this policy.
3. Use of AI Tools to develop substantive content for ASME Standards is not permitted.
4. Non-human AI contributions do not qualify for authorship of External Content. ASME will not accept external content that lists AI or AI technologies as an author or co-author.
5. Authors represent and warrant that they hold the copyright to, or have an appropriate license for, any External Content submitted to ASME. Materials created by AI Tools that cannot be copyrighted will be rejected.
6. If an AI Tool is used by an Author in any way to produce External Content, the Author represents and warrants that they have a valid and appropriate license[s] that allows commercial re-distribution of any material[s] created or modified by the AI Tool. Authors agree to provide ASME with evidence of such license, upon ASME's request. If content protected by copyright was entered into an AI Tool by Authors during the preparation of the External Content, they shall include a copy of the license from the copyright owner to do so (if the copyright owner is not the Author themselves).
7. AI Tools may be used to modify, edit, review, revise, translate, polish, improve readability, stylize, or otherwise change any of the Author-created materials in External Content, but any use of such tools must be fully reported by the Author, as described in Section B Disclosure Obligations.
8. AI Tools may **not** be used to create, contribute, generate, produce, or otherwise submit substantive portions of External Content. Such content will be rejected by ASME. This includes, but is not limited to, drafting text, creating data, making observations from data, conducting any analysis (including quantitative, qualitative, or any

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other kind), drawing conclusions, defending proposals and/or points-of-view, or any other kinds of new material generation. ASME reserves the right to make the final determination of if an AI Tool was used for substantive contributions to External Content.

9. Authors may use AI Tools in the design or preparation of Original Research, other scientific studies, new technical materials, or to assist in their projects. Any use of AI Tools during Original Research design must be fully reported by the Author. When presenting any such project as External Content for publication by ASME, Authors must:
 - a. Follow and describe relevant reporting guidelines and best practices on AI use in their fields, with sufficient detail to enable reproducibility.
 - b. Follow the Disclosure Obligations in Section B, including a section assessing the possible biases, faults, and errors of AI Tools.
10. AI Tools **shall not** be used by Authors to create images or video in External Content. AI Tools **shall not be used** to process, modify, or otherwise change Author-created images or video that are included in External Content.
11. Peer reviewers are **prohibited** from submitting any content that they are reviewing on behalf of ASME to any AI Tools. Peer reviewers may only use AI Tools to assist with improving review language, as described in para. IV 7. Peer reviewers remain responsible for ensuring the accuracy and integrity of their reviews. If an AI Tool is so used, its use must be fully disclosed in the feedback submitted.
12. No Sensitive Data of ASME or a third party shall be entered into an AI Tool without the express written permission of ASME or the owner of that information, respectively. Any written third-party consents to the use of Sensitive Information shall be provided to ASME prior to publication.
13. Authors shall carefully review AI-generated material for inaccurate or incomplete information, use of Sensitive Data, and potential infringement of third-party rights. Generated content must not be used if it is misleading, harmful, offensive, or discriminatory.

B. Disclosure Obligations

1. ASME requires Authors to fully disclose any use of AI Tools, at any stage of the process of creating External Content or Original Research, in the content itself. The disclosure must be descriptive and transparent, with as much detail as possible.

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2. ASME External Content shall disclose that AI Tools were used in the creation thereof. The Author shall report any use of AI Tools within the content in the Acknowledgements section (or other appropriate place, if no Acknowledgements section exists within the External Content).
3. Obligations for All External Content
 - a. For any usage of an AI Tool in External Content, the Author must provide at least the following details:
 - i. The name of the AI Tool, software platform, program, or system, including:
 - a. Version and extension numbers, if available.
 - b. Manufacturer (as it is currently known)
 - c. How the tool was accessed (web browser, desktop computer, extension in word processing software, or any other means)
 - ii. Date(s) of use
 - iii. A brief description of how the AI was used and on what portions of the manuscript or content
 - iv. A statement confirming that the Author(s) take responsibility for the integrity of the content generated
4. Additional Obligations for Original Research
 - a. For AI Tool usage in Original Research, in addition to the foregoing in Paragraph 3, there are additional disclosure requirements.
 - b. Authors shall describe in the *Methods* section:
 - i. How AI was used for specific aspects of the research. This includes, but is not limited to, generating or refining study hypotheses, assisting in the generation of systematic adjustment variables, or writing statistics processing code (e.g. R)
 - ii. For studies using LLMs, the prompt(s) used and when, including order in which they were submitted to the LLM
 - iii. For studies reporting ML and algorithm development:
 - a. Details about data sets used for development, training, and validation, and an explicit confirmation of whether MLs were trained and tested only on previously collected or existing data sets, or if the study includes new data.

- b. the full ML model and detailed description of the variables.
 - c. If the model parameters were changed over time, the outcomes that led to those changes, and selection of the fine-tuning parameters
 - d. any assumptions integrated into the model, and how these assumptions were tested.
 - e. data sharing (statement), including if code will be shared
- c. Authors shall provide a performance evaluation of the AI Tool, in an appropriate place, including:
- i. The metrics used to evaluate the performance of the AI Tool, including, but is not limited to, bias, discrimination, calibration, reclassification, and any other relevant figures.
 - ii. Description of why it was appropriate or not to perform sensitivity analyses to explore the performance of the AI model.
 - iii. Evaluation, including method, of the AI Tools' performance in regard to vulnerable or underrepresented subgroups.
 - iv. any revisions or changes made to the study, AI prompts, etc. that were based on the output of the AI Tools.
 - v. the methods used to address missing data about the AI Tool's performance, or other relevant information about the AI system.
 - vi. If applicable, your institutional ethics review approval/waiver, and the reasoning behind the decision. Include a copy of the decision with content submission.
 - vii. methods or analyses employed to address and manage AI Tools' bias and inaccuracy.
- d. Authors shall also describe the following in the *Results* and/or *Discussion* section:
- i. When reporting assessments that an AI Tool assisted with (such as statistics processing code): performance assessments of the tool. Note any missing data or similar issues.
 - ii. the results of analyses to address AI Tools' bias and performance, particularly relative to [vulnerable] populations, and the results of the analyses performed to explore the performance of the AI Tool.
 - iii. the potential for bias in the AI Tool, and if sufficient effort was put in to identify, mitigate and/or manage bias.

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- iv. the potential for inaccuracy of AI Tool outputs, and if sufficient effort was put in to identify, mitigate and/or manage inaccuracy.

V. LEGAL COMPLIANCE AND VIOLATIONS

- A. Any use of a AI Tool must comply with all applicable laws and regulations governing the use of AI. This includes compliance with privacy laws, intellectual property laws, and anti-discrimination laws. Questions can be directed to aipolicy@asme.org.
- B. If you become aware of any improper use of an AI Tool or of any other violation of this Policy, please immediately contact aipolicy@asme.org. There will be no retaliation against anyone for good faith reporting of a violation of this Policy.
- C. Any External Content not in compliance with the terms of this policy will be rejected. ASME reserves the right to make the final determination as to if an AI tool was used in a manner compliant with this policy.