

## MECHANICAL ENGINEERING SENIOR DESIGN REPORTS

Scorer: \_\_\_\_\_

Paper ID Code: \_\_\_\_\_

Criteria		Unsatisfac- tory (1)	Minimally Proficient (2)	Moderately Proficient (3)	Excellent (4)
<b>ABSTRACT:</b> Introduction, objective, approach, what was accomplished; summary of most relevant quantitative & qualitative results; recommendations, if appropriate	1				
<b>BACKGROUND:</b> Brief introduction on company and product, need, problem statement, specifications, constraints.	2				
<b>METHODS:</b> Basis of using software and or hardware and validation of use of said software /hardware	3				
<b>DESIGN &amp; BASIS:</b> (a) Theory: Clearly describes relevant theoretical background with a complete list of assumptions. Related equations are typed and numbered with variables clearly defined. (b) Preliminary and final design: The details of the design are presented with the specifications and constraints in mind. (c) Procedures: procedures are clearly stated and itemized in a way that others can reproduce the work.	4				
<b>RESULTS:</b> Analysis of raw data and derived outcomes. Comparisons between theoretical and obtained results. Discussion of any discrepancy between theoretical predictions and actual results. Draws conclusions based on evidence presented.	5				
<b>ORGANIZATION/NAVIGATION:</b> Reader-based organization that anticipates audience needs (rather than a writer-based order, like chronological, that requires readers to do more work). Formatting enhances navigation with table of contents and appropriate titles, headings and subheadings, bullets and lists; table of contents matches headings and pages.	6a				
<b>GRAPHICS/VISUALS:</b> Use of figures and tables to support analysis and discussion; visuals strategically placed and distinctly labeled, including figure number, title, source, and description; consistent engineering units; articulation of relevant variables (in legend); appropriate assumptions, equations, and/or error bars included as necessary.	6b				
<b>STYLE:</b> Appropriate nomenclature, syntax, formality, and technical style; helpful transitions; third-person perspective; mostly active voice; concise.	7				
<b>EDITING/MECHANICS:</b> Grammar, usage, sentence structure, punctuation, and spelling are consistent with standard engineering usage.	8				
<b>REFERENCES/CITATIONS:</b> Appropriate, accurate and consistent use of references, citations, and bibliography in ASME journal style. All references must be cited, including software and personal communications.	9a				
<b>APPENDIX/APPENDICES:</b> Includes related supporting contents, such as lengthy derivations, design concerns, drawings (if any), codes (if any), etc.	9b				
<b>HOLISTIC SCORE:</b> Overall sense of writing quality based on expectations for seniors in Mechanical Engineering	10				

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_