Software Tool for Analyzing the Bending Strength of Gear Teeth

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Lee Honors College Thesis Rubric
(Adapted from rubric developed by the University of Maine)

A link to an electronic version of this rubric was sent to the thesis chair at the time that the thesis defense paperwork is submitted by the student to the honors college approximately 30 days prior to the defense.

Student Name: Tayla Janae Hall  Evaluator Name: Jinseok Kim

Title of Thesis: Software Tool for Analyzing the Bending Strength of Gear Teeth

An honors thesis is defined as an original work of scholarship or creative activity completed by an undergraduate honors student. The thesis should reflect the academic standards of the field of study, and must be approved by a full-time WMU faculty member who agrees to serve as the honors thesis committee chair, and at least one additional committee member with significant expertise in the area of study or a closely related discipline. Examples of honors theses include senior engineering design projects, creative works of fiction, original documentaries, novel educational curricula, original performances or works of art, and traditional research papers. Please assess the work of the student named above on a scale of 1-5 in each of the areas described below by circling the number that best reflects the student’s achievement. Numerical scoring is required; comments are especially helpful to the student but are not mandatory.

1. Research question or creative challenge

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- Evidence of an original research question/problem or creative challenge/concept
- Clear statement of goals/intent/hypotheses
- Knowledge and consideration of historical and contemporary contexts evident

Comments: Clear motivation for research.

2. Methodology or creative process

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- Demonstrates comprehension of structures, content and tools of the discipline
- Topic is contextualized within the professional standards and developments of the discipline
- Appropriate methodology/approach for the discipline

Comments: Selected appropriate method for the project and well presented the content and structures of the project

March 26, 2019
3. Coherence and originality

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- Analysis/final product is reflective and supportive of the research/creative intent
- Significance of what was discovered or created is evident
- Demonstrates independent and critical thought

Comments: The developed tool well predicts the tendency of bending stresses on the gear teeth based on the gear geometry

4. Structure of final product/Written component

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- Language/final product clearly and effectively communicates ideas
- Organization is clear and effective
- Sources and citations, if applicable, are used correctly
- Mechanics (grammar, spelling, punctuation, etc.) are used appropriately

Comments: The thesis is well organized and clearly written. It is very easy to read and follow.