

# Review of: "Optimized Material Removal and Tool Wear Rates in Milling API 5ST TS-90 Alloy: AI-Driven Optimization and Modelling with ANN, ANFIS, and RSM"

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Potential competing interests: No potential competing interests to declare.

As a reviewer, I have a few questions and points to clarify regarding the study:

**Model Comparison and Selection:** In the comparison of the RSM, ANN, and ANFIS models, it's mentioned that ANFIS outperformed the other models slightly. Can the authors provide more details on the specific metrics and criteria used for this comparison? What were the main strengths of ANFIS over the other models?

**Optimization Process:** While the optimization process was discussed, it would be helpful to understand if any constraints or limitations were considered during the optimization. Were there any practical constraints in the milling process that were taken into account?

**Experimental Validation:** It's mentioned that the optimized conditions were validated experimentally. Could the authors provide more details on the methodology and results of this experimental validation? Were there any notable discrepancies between predicted and validated values?

**Generalizability:** Milling processes can vary significantly depending on the materials and tools used. Did the study investigate the generalizability of the developed models to other materials or tool types? If so, what were the findings in this regard?

**Robustness and Sensitivity:** Milling processes can be sensitive to variations in conditions and material properties. Did the study address the robustness and sensitivity of the developed models to such variations? Were any sensitivity analyses conducted?

**Limitations:** Every study has limitations. What were the main limitations of this research, and how might they impact the practical application of the developed models in industrial settings?

**Practical Implications:** Finally, it would be valuable to discuss the practical implications of the study's findings. How can these optimized conditions and modeling techniques be practically applied in industrial milling operations, and what benefits can be expected in terms of efficiency and cost savings?

I believe that addressing these questions and points would enhance the comprehensiveness and practical relevance of the study.

