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.

REFEREE COMMENTS

Article Reference Number: GEGPL7

Comments on the article entitled **"Optimized Material Removal and Tool Wear Rates in Milling API 5ST TS-90 Alloy: AI-Driven Optimization and Modelling with ANN, ANFIS, and RSM".**

General Comments/Suggestions/Appreciation

This manuscript is an experimental approach to the nature. The general format of the manuscript is appropriate for the publication. All sections of the manuscript have been arranged in a logical manner and are readable. Figures are clear and relevant.

The paper though contains some interesting and original results, it lacks in proper presentation with not written properly and without logical presentation along with need for better language and hence may not attract the interested readers. Besides, the paper needs attention towards English language used at few places. So, it is suggested that the authors should take the help of a native English speaking expert to make proper presentation of the paper. It would appear that the format adopted is standard. However, this manuscript needs substantial changes.

In view of these, the paper is *not recommended* for publication in the present form. Further,*manuscript can be accepted after modifications*. The following comments give some details of lacunae in this paper:

Title

The title of the manuscript is appropriate. The manuscript title reflects the content.

Language

The written language is poor and doesn't fit as per journal standard for the publication. Also, the paper needs attention regarding English language throughout the manuscript.

Abstract

The abstract covers most of the works performed by the author and contains most of the essential elements that

contained to the minimum requirements of the paper publication. However, the abstract needs to modify the concise abstract form and the abstract would start with necessary work background (1-2 sentences) for easy understanding to the readers. Further, the conclusion, recommendation and implication of the study are addressed in the abstract. Therefore, it is suggested that abstract to be modified as per the suggestions given above.

Introduction

This section is written giving necessary background. But, the existing gaps in the work carried out so far are absent and thus not justifying the present study. Further, the following are to be taken care off:

This section contains unwanted things which making reading of the section boring. It would be better to modify this Section with only necessary literature is presented with appropriate references. While doing so attention may also be given to some recent studies rather than going for too old references. The objective of the study is not clearly addressed. Further, following the justification for the present study, it is necessary to mention the objectives of the present study clearly.

Materials and Methods

The procedures of the process have been discussed poorly and is not acceptable in the present form. The section is too lengthy creating boring to the readers. It needs to modify the concise form.

Therefore, it is suggested that the section is to be modified as per the suggestions given above.

Results and Discussion

This section is well is also poorly addressed. Few suggestions might be considered.

Provide the comparison of the previous latest results/studies with this study.

Thus, the section can be accepted after the incorporation of the above suggestions.

Conclusion

Though this section presents the important findings based on the study, however it is suggested to write point wise. Therefore, this should be modified.

References

The references are properly cited within the text. Some references are too old and should be replaced by most recent publications. Further, it is recommended to cite the papers:

"Physical, Corrosion and Microstructural Analysis of A356/SiC Nanocomposites Fabricated through Stir Casting Process". doi:10.4028/www.scientific.net/MSF.1034.73.

"Optimization of wear behaviour using Taguchi and ANN of fabricated aluminium matrix nanocomposites by two-step stir

casting" *https://doi.org/10.1088/2053-1591/ab0871*

"Morphological characterization, statistical modelling and tribological behaviour of aluminum hybrid nanocomposites reinforced with micro-nano-silicon carbide" *https://doi.org/10.1080/21870764.2019.1665765*

"Mechanical properties and morphology of aluminium metal matrix nanocomposites-stir cast products" *https://doi.org/10.1080/2374068X.2017.1350543*