

### Review Form 3

Journal Name:	<a href="#">Journal of Engineering Research and Reports</a>
Manuscript Number:	Ms_JERR_127113
Title of the Manuscript:	Laser Engraving Processes on AISI 304 Stainless Steel: A Multi-objective optimization approach
Type of the Article	

#### General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript is significant for the scientific community for several reasons: 1- It addresses an important topic in advanced manufacturing, as laser engraving is becoming increasingly relevant in various industries due to its precision and flexibility. 2- The research offers practical insights into the relationships between laser engraving parameters and various output characteristics, which can be directly applied in industrial settings to improve process efficiency and quality. 3- By focusing on AISI 304 stainless steel, a widely used material in many industries, the study's findings have broad applicability and potential for immediate practical impact.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract of the article is comprehensive	
Are subsections and structure of the manuscript appropriate?	Yes	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript demonstrates scientific robustness and technical soundness for several reasons: 1- Experimental Design: The use of a Box-Behnken design allows for an efficient exploration of multiple parameters, enhancing the reliability of the results. 2- Advanced Methodologies: The integration of Grey Relational Analysis (GRA) with Principal Component Analysis (PCA) provides a sophisticated framework for multi-objective optimization, addressing complex trade-offs between different output characteristics. 3- Comprehensive Analysis: The study thoroughly investigates multiple relevant responses -surface roughness, kerf width, engraving depth, and material removal rate- offering a holistic understanding of the laser engraving process.	

**Review Form 3**

<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>-</p>	<p>I suggest you review additional reference in the field of laser engraving application such as:</p> <ol style="list-style-type: none"> <li>1- Experimental study on the effect of CNT-enriched nanofluid lubrication on the performance of textured cutting tool in the turning of aluminum 7075 alloy</li> <li>2- Improvement of thread turning process using micro-hole textured solid-lubricant embedded tools</li> <li>3- Optimization of microtextured tools parameters in thread turning process of aluminum 7075 aerospace alloy</li> </ol>	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<ol style="list-style-type: none"> <li>1- Please refer to all of the Figures and Tables in the text.</li> <li>2- When resizing the images, please ensure that the aspect ratio is maintained. For example, in Fig. 4(a), the image has been resized without preserving the aspect ratio.</li> <li>3- Refer to the Software that you use in analysis.</li> </ol>	

**PART 2:**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

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