

**Review Form 1.7**

Journal Name:	<b>Journal of Engineering Research and Reports</b>
Manuscript Number:	<b>Ms_JERR_110225</b>
Title of the Manuscript:	<b>A New Approach to Construct GC2 Tool Path Constrained With Tolerance Band</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

	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><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> <li>1. Yes, the manuscript contributes to the scientific community. It analyses and explores an improved mechanism based on NURBS interpolation, aiming to overcome drawbacks of the traditional method and enhance toolpath movement and transition. The author establishes a good baseline for further exploration of this approach, providing valuable insights into the possible reduction of feed rate fluctuations during toolpath movement. This research contributes to the field by improving toolpath in CNC machining, with potential applications in enhancing the overall efficiency and precision of machining processes.</li> <li>2. The current title could be adjusted for better specificity and clarity. A more suitable title would be "Toolpath Smoothing Based on Controlled NURBS Interpolation." This adjustment properly reflects the content provided in the manuscript, showing a clearer indication of the research topic and methodology. The refined title communicates the use of controlled NURBS interpolation for toolpath smoothing, possibly improving the article's relevance to readers that interested in toolpath and CNC machining optimization.</li> <li>3. While the abstract involves presenting and outlining the content of the research using cubic non-uniform B-spline curves, it's noted that the claim of "enhancing the surface quality of machined workpieces" which lacks experimental evidence. The absence of experimental validation raises questions about the impact on surface quality, and it would be beneficial for the author to either include experimental results or rephrase the statement to indicate the expected improvement based on the analytical smoothness achieved through the proposed approach. Providing clarification or incorporating experimental work would strengthen the credibility of the claim and further contribute to the importance of the research.</li> <li>4. The subsections and structure of the manuscript could be refined for improved organization and clarity. I recommend changing the section titled "Toolpath Smoothing" to "Methodology" to more accurately reflect the approach of the research. Moreover, presenting all subsections as a flowchart within the methodology section could provide a visual representation of the research process, aiding in understanding the sequence and relationships between different steps. This adjustment would contribute to a more structured presentation of the current work.</li> <li>5. Yes, the manuscript establishes scientific accuracy. The research methodology and theoretical framework align with established principles in the field.</li> <li>6. Yes, the references in the manuscript are both recent and sufficient. They involve relevant literature that supports the research methodology and analysis. No additional references are considered necessary for the scope of the research.</li> </ol>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>	<p>Yes. However, the repetitive use of the pronoun "we" throughout the paper may lead to a less formal writing style. It recommended changing sentence structures by using passive voice or introducing more complex sentences.</p>	

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<b>Optional/General</b> comments		
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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(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)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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