

Review Form 3

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| Journal Name: | Journal of Engineering Research and Reports |
| Manuscript Number: | Ms_JERR_128257 |
| Title of the Manuscript: | Rebar Modeling of Variable Section Specially Shaped Columns Based on BIM—Taking L-shaped columns as an example |
| Type of the Article | Review Article |

PART 1: 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. A minimum of 3-4 sentences may be required for this part. | This manuscript addresses the challenges of accurately modeling reinforcement in complex, specially shaped column geometries, which are difficult to represent using traditional 2D methods. By leveraging Revit's parametric modeling capabilities and secondary development using C#, it introduces a systematic approach for automating 3D rebar modeling, enhancing precision and efficiency in structural engineering design. This work will contribute to advancing BIM applications in specialized structural engineering projects | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The title is descriptive and provides a clear idea of the manuscript's focus, but it could be slightly refined. Here are some alternative suggestions: <ol style="list-style-type: none"> "BIM-Based Rebar Modeling for Variable Section L-Shaped Columns" "Parametric Rebar Modeling of L-Shaped Columns with Variable Sections Using BIM" | |
| 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. | it can be improved for clarity, conciseness, and comprehensiveness. Below are the suggestions: Suggested Additions/Improvements: <ol style="list-style-type: none"> Highlight the novelty: Explicitly state what distinguishes this approach from previous methods or tools for rebar modeling. Outcome and Impact: Briefly mention the efficiency, accuracy, through the proposed program. Provide a bit more context on why variable section shaped columns are particularly challenging and significant in construction. | |
| Is the manuscript scientifically, correct? Please write here. | The manuscript appears to be scientifically sound, with a clear focus on addressing a specific and practical problem in the construction and engineering field: the efficient and accurate modeling of rebar in variable section specially shaped columns using BIM technology. but could benefit from more detailed validation, comparison with existing methods. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | <input type="checkbox"/> Coverage of Core Topics: The manuscript references studies related to BIM technology, rebar modeling, and advanced development tools like Revit <input type="checkbox"/> Inclusion of Relevant Tools: Studies on the integration of BIM with design and analysis tools, such as Revit and FEM software, add credibility to the manuscript. | |

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| Is the language/English quality of the article suitable for scholarly communications? | <input type="checkbox"/> Technical Vocabulary: The manuscript employs appropriate technical terms, such as "secondary development," "variable cross-section," and "geometric accuracy," which are suitable for the target <input type="checkbox"/> Logical Flow: The abstract and body of the article are well-structured, with a logical progression of ideas. | |
| Optional/General comments | | |

PART 2:

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

Reviewer Details:

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|----------------------------------|----------------------------|
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| Department, University & Country | CU / PTU, India |