

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_127208
Title of the Manuscript:	Revit-Midas Civil model conversion method and application based on rectangular aqueduct superstructure
Type of the Article	Review Article

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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>)
<p>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.</p>	<p>This study addresses a need for efficient integration between BIM platforms and FEA tools, specifically for rectangular aqueduct structures. By proposing a robust model conversion framework that leverages Revit's modeling capabilities and Midas Civil's structural analysis strengths, it contributes to advancing automation in engineering workflows. The demonstrated reduction in modeling time highlights its practical value in enhancing productivity, which is particularly impactful for large-scale projects. Also, the study's methodological rigor, through secondary development using C# and its validation on real-world examples, ensures the reliability of the approach, providing a valuable reference for future BIM-integrated structural analysis research.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The given title is descriptive and conveys the key focus. However, it could be refined better. A suggested alternative title is: "Model Conversion and Application Framework for Rectangular Aqueduct Superstructures: Integrating Revit and Midas Civil" This alternative emphasizes the broader themes of BIM-to-FEA integration and highlights the focus and framework presented in the manuscript.</p>	
<p>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.</p>	<p>The Abstract could be improved and refined more by highlighting:</p> <ul style="list-style-type: none"> • Key Innovations • Explicit Benefits • Scope of Applicability • Clarify Focus <p>Please generate a new version of the Abstract.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>This should match with the Journal's prescription. Therefore, recheck properly.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript.</p> <p>Why do you think that this manuscript is scientifically robust and technically sound?</p> <p>A minimum of 3-4 sentences may be required for this part.</p>	<p>Summary of Improvements Needed</p> <p>--For the 'Introduction':</p> <ol style="list-style-type: none"> 1. Clearly articulate specific research gaps and their significance. 2. Critically evaluate the limitations of prior studies. 3. Justify the focus on rectangular aqueducts with context-specific challenges. 4. Avoid redundancy and streamline the text. 5. Emphasize the novelty of the secondary development and automation approach. 6. Connect the study to broader trends and future implications. 7. The section "First, Revit utilizes collaboration simultaneously without interference" is more likely to be fit for the method section. 8. The section "Figure 8 shows the modeland 2 meters in height. "is more likely to be fit for the method section <p>--The section "With the continuous improvement achieve data exchange between two software" is more likely to be fit for the Introduction section.</p> <p>--Provide the basic information related to material properties, Element/ Node no, section properties, Boundary conditions and, Load should be placed at the 'method' section.</p> <p>--The maximum stress is 6.1566 MPa and 6.0306 MPa at the same location in both models. Plz, mention the location. What types of stress? Compression? Or tension, over steel? or Concrete? Not clear.</p> <p>--Also, explain the same for Vertical displacement.</p> <p>--For the 'Conclusion' section-</p> <ul style="list-style-type: none"> • Discuss how the proposed method can be adapted or extended to other structural analysis and BIM software, broadening its application beyond rectangular aqueduct structures. • Highlight potential limitations of the current framework, such as specific conditions or structural elements that may not be fully supported. Also suggest avenues for future research, such as improving compatibility with other software or expanding the method to support more complex structures. • Include quantitative data on the efficiency gains and error reductions achieved through the proposed method, reinforcing 	

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	<p>its significance. Mention specific metrics (e.g., percentage decrease in modeling time, reduction in error rates during data conversion).</p> <ul style="list-style-type: none"> Summarize the innovative aspects of the study, such as the seamless integration of Revit and Midas Civil or the novel algorithms used for data mapping and interaction. Highlight how the method addresses current industry challenges, such as reducing labor costs or aligning with the increasing trend toward intelligent construction and digital transformation. Relate your findings with existing literatures with fact-finding and justification. 	
<p>Are the references sufficient and recent? If you have suggestions for additional references, please mention them in the review form. -</p>	<p>Many recent related references are missing, here are a few suggestions that can improve the text quality, please add them in the text: DOI: 10.59400/be.v2i2.1567 DOI: 10.1155/2022/7600848 DOI: 10.1007/s44290-024-00029-3 DOI: 10.1504/ijsmss.2022.131174 DOI: 10.1016/j.asej.2023.102360 DOI: 10.1504/ijstructe.2022.121911</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are largely suitable for scholarly communication. However, a thorough recheck is advised for a refined upgradation along with the references and citation style as per journal requirements.</p>	
<p><u>Optional/General</u> comments</p>	<p>--Fig 9 and 10 are hazy, plz provide a better look. --Avoid words like 'We/I/me', use passive voice in text.</p>	

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>	

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