

**Review Form 1.7**

Journal Name:	<b>Journal of Engineering Research and Reports</b>
Manuscript Number:	<b>Ms_JERR_113832</b>
Title of the Manuscript:	<b>PREDICTIVE BEHAVIOUR FROM FINITE ELEMENT ANALYSIS ON PVC-DUCTED REINFORCED CONCRETE COLUMN</b>
Type of the Article	

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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><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<ol style="list-style-type: none"> <li>1. Yes, it is important to explore the behaviour of such column having PVC embedded as locals are using PVC pipes in columns generally.</li> <li>2. Yes, the title is suitable.</li> <li>3. I don't see any numbers in your abstract.</li> <li>4. Work on the structure of paper is needed. Such as the "Abaqus overview section" is separately given with very short description. I suggest, it should be included in the next section.</li> <li>5. Yes, the manuscript is scientifically correct.</li> <li>6. No recent literature has been cited. Please include relevant recent literature.</li> <li>7. Avoid the repetition such as "the 3D Finite Element Analysis (FEA) software, ABAQUS FEA version 2020, was chosen" and then again "ABAQUS/CAE 2020, a finite element package, was chosen for its flexibility".</li> <li>8. Which material model was employed for concrete and PVC Pipe and why?</li> <li>9. There is no procedure given on how the mesh was selected and what were the mesh dimensions used for different materials in this study? There is no Mesh sensitivity analysis performed?</li> <li>10. In the simulation, the interaction between PVC and concrete has not been explained.</li> <li>11. In Figure 7, use KN instead of N to make it concise.</li> <li>12. How the load bearing capacity has increased? Please mention the strength increase in the form of Percentage.</li> <li>13. The force displacement diagrams does not show any increase in the peak capacity. Both the curves are the same in comparison part. What do they suggest?</li> <li>14. Provide proper explanations for every figure in section 3.1 and 3.2 of comparison.</li> <li>15. Your conclusions should be based on some numerical results. I don't see any numbers in your abstract neither in your conclusions.</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>	<ol style="list-style-type: none"> <li>16. Grammatical errors should be checked and removed. Please do proof reading.</li> </ol>	
<p><b>Optional/General</b> comments</p>		

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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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