



SDI Review Form 1.6

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| Journal Name: | British Journal of Applied Science & Technology |
| Manuscript Number: | Ms_BJAST_22074 |
| Title of the Manuscript: | The Effect of Gravity Loads on Seismic Lateral Displacements of R.C. Frames Using Different Damping Ratios |
| Type of the Article | Short Research Article |

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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) |
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| Compulsory REVISION comments | <ul style="list-style-type: none"> ➤ It will be better if the title can be rephrased ➤ Poor introduction discussion and very poor conclusion, ➤ Not much references ➤ In which units are given the column, beam, displacement...etc.? ➤ Can the authors be sure to get this precision in the given number? It depends also on the units used. ➤ Page 3: Load case 2: this case of loading can't be considered. The seismic load cannot be considered without gravity load. ➤ Page3 line 23: Do you think that a record of a total time of vibration of 8 seconds is representative? ➤ Page 5 line15: the authors say that the results are shown in Tables 2 to 5 and Figures. But no figures are presented. It will be better if they are presented on figures and the tables presented in the annexes. | <ul style="list-style-type: none"> ➤ The title has been rephrased ➤ The paper introduction discusses exactly information relating to the topic and so the the conclusion. ➤ These are the necessary references needed for the paper. ➤ In (millimetres) – have been added. ➤ Yes. ➤ It is an assumption applied to investigate the effect of gravity loads (there are many assumptions used in dynamics). ➤ Yes. ➤ Has been corrected. The Figures have been attached. |
| Minor REVISION comments | <p>Abstract:</p> <ul style="list-style-type: none"> ➤ "This paper includes an analytical study for an investigation of the gravity load <i>effect</i> on the seismic lateral displacements" ➤ Line 2 and 3: R/C or R.C? Authors should use the same notation to talk about reinforced concrete. ➤ How is classified Khartoum city according to the Sudan seismic code? ➤ Why authors did not use shear walls even the building are of 6 stories. | <ul style="list-style-type: none"> ➤ Corrected. ➤ Corrected. ➤ Khartoum city lies in zone 2 (added to the text). <p>There are many structural systems resisting lateral forces- for structural purposes the paper used "Ordinary Moment Frame</p> |



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| | <ul style="list-style-type: none"> ➤ Page 1, line 9: "Ground motions, i.e., accelerations versus time periods". This is not true ➤ Page 1, line 13: "From this study <i>and</i> regardless of values of damping ratios and types of restraints used". Authors should rewrite this sentence. ➤ Page 1, line 21 and 22: "The primary purpose of all kinds of structural systems used in the building type of structures is to transfer gravity loads effectively" Structure role is the undergo then transfer effectively to the foundations the different loads ➤ Line 25 and 26: "Lateral loads can develop high stresses, produce sway movement <i>and not or</i> cause vibration". Authors should rewrite this sentence ➤ Page 1, line 26-27: The structures have to be designed to support vertical load not having "sufficient strength against vertical loads". ➤ Page 2, line 1: "This paper also highlighted <i>the not on</i> response of reinforced concrete ...etc." ➤ Some references citation includes the year while not the other one ➤ Page 2, line 26: not the yielding effect but the building responses ➤ Page 2 line 27: " the design spectrum for elastic not inelastic system" ➤ In all the paper: Stad III is not a program, it is a software ➤ Figure 2: not all the nodes on E-W and N-S can have the same number. Authors should see 3D model and identifying the right nodes numbers. ➤ Page 5, line 3: "Lateral displacement will be on top storey". Each storey has its own displacement. <u>The maximum</u> lateral displacement is obtained at the top of the building. | <ul style="list-style-type: none"> ➤ Resisting System". ➤ What is meant here is that when ground motion accelerations reach a seismograph it will be recorded in terms of accelerations and time which in turns used as input data for the analysis ➤ Done ➤ Corrected ➤ Corrected ➤ corrected ➤ Corrected ➤ Revised & added. ➤ Corrected ➤ Corrected ➤ Changed ➤ It is two-dimension, numbered by the software. ➤ Corrected ➤ Rewritten ➤ rewritten |
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| | <p>➤ Page 9, line 2: "From the result obtained". Authors should rewrite this sentence.</p> <p>Conclusion section should be rewritten.</p> | |
| <u>Optional/General</u> comments | <p>➤ Authors should homogenize the text layout.</p> <p>➤ Page 2 line 21, the authors are talking about their paper, by saying "<i>The objective of this paper</i>". They used the same words to talk about Kulkarni J. G. et al. paper. It will be better to say "<i>the herein paper</i> "</p> <p>➤ Sometimes authors talk about frequency others about period.</p> | |