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| Book Name: | [**Engineering Research: Perspectives on Recent Advances**](https://www.bookpi.org/bookstore/product/engineering-research-perspectives-on-recent-advances-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4815** |
| Title of the Manuscript:  | **Seismic Analysis of G+8 RC Building Frame having Setback Irregularity and Subjected to Mainshock-Aftershocks Sequences** |
| Type of the Article | **Book Chapter** |

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **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.** | The study addresses a critical area in earthquake engineering by analyzing the structural response of irregular reinforced concrete (RC) buildings with setback configurations under mainshock-aftershock sequences. The comparative assessment of three building models (B1, B2, B3) under various seismic records (Chamoli, Valparaíso, Coalinga) provides significant understandings into structural vulnerabilities. These findings make a significant impact to advancing both academic research and practical design methodologies. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | The current title generally reflects the study’s scope and methodology; however, clarity can be improved by considering the following title suggestions.1. "Seismic Response of G+8 RC Building Frames with Setback Irregularities under Mainshock-Aftershock Sequences."

Alternatively, consider incorporating an action verb to emphasize the study’s focus, for example:1. "Numerical Study on the Seismic Performance of G+8 RC Buildings with Setback Irregularity under Mainshock-Aftershock Sequences."
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| 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. | The abstract efficiently summarizes the study’s foundational concepts, objectives, methodology, and outcomes. However, the results and key findings must be provided evidently by including the necessary computed values. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | The methods used in the study are generally suitable, with linear time-history analysis conducted in ETABS. However, several points require further clarification and justification:* Although Table 1 provides the geometrical and material data, the design procedures for determining the cross-sections of the models are not described. The design approach must be detailed, as any weaknesses in these procedures could compromise the validity of the results.
* Given that nonlinear time-history analysis is widely regarded as more suitable in the case of aligning with practical scenarios; please provide a clear justification for using linear analysis over nonlinear methods.
* The basis for choosing specific setback irregularity values (such as the 26.66% reduction in floor area for Model B2) expected to be explained. Please support these choices with references or code-based justifications.
* It would be necessary to quantify the degree of vertical irregularity in Models B2 and B3 and include information regarding the plan regularity. This additional data would help in connecting the seismic response with the degree of irregularity.

Finally, the conclusion section is solid. However, it should also address the study’s limitations and recommend directions for future investigation, such as the implementation of non-linear analysis and the consideration of multiple aftershocks rather than a single event with a three-second gap. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | The reference effectively covers key studies on seismic analysis of RC structures and irregular building behavior. Including any very recent studies would further reinforce the literature review and support the study’s findings. |  |
| Is the language/English quality of the article suitable for scholarly communications? | While the study effectively expresses the core ideas, it would modified by systematic language edit. Correcting grammatical errors and improving phrasing (for instance, “architectural elegancy” in the third paragraph of the introduction section is unprofessional phrasing which is better replaced with “architectural considerations”) will help meet scholarly communication standards. |  |
| Optional/General comments | * Consider using the latest version of ETABS if available, as this may affect the analysis results.
* Although the figures and tables are well organized, please integrate the discussion more closely with these visuals by explicitly explaining how each figure supports the findings.
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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

**Solomon Getachew Wondimu, Debre Markos University, Ethiopia**