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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\_5067** |
| Title of the Manuscript:  | **Dynamic Interaction Analysis of PCC Bridge Abutment-Layered Soil System Subjected to Varying Earthquake Ground Motions in Indian Scenario** |
| 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.** | This paper adds important insights to seismic performance of PCC bridge abutments supported by multi-layered soil deposits via sophisticated numerical analysis. Incorporating actual earthquake records for the Indian scenario, the research tackles SSI influences frequently neglected in standard seismic design. The results enhance structural evaluation accuracy under dynamic loading, eventually leading to seismically resilient and safer infrastructure development across earthquake-prone zones. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | Yes, the title is good and accurately captures the study's aim, methodology, and geographical significance.(No changes required.) |  |
| 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 is mostly complete. However, consider briefly summarizing the methodology (including the employment of ABAQUS and the chosen earthquakes) and the most important numerical results (e.g., the maximum displacements or stress values) to maximize clarity and effect. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | Yes, the paper is scientifically sound and methodologically strong. The adoption of actual earthquake ground motion data, a well-detailed finite element model, and displacement and stress result analysis reflect a valid and rigorous method of dynamic analysis of bridge abutments. The conclusions are adequately supported by the simulation outcomes. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | Yes, the references are relevant, balanced, and up-to-date, reflecting foundational and current literature from 1995 through 2024. No other references are currently required. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes, the manuscript is well written and clear in general. A light proofreading to eliminate minor grammatical variations and refine wording would make reading easier but is not required. |  |
| Optional/General comments | The paper may be served well by having a brief limitations section to direct further research. Finally, also include a concise summary of the major numerical results (e.g., maximum horizontal/vertical displacements for all earthquakes) in an easy-to-use comparative table. |  |

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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)* |  |

**Reviewers:**

**Michael Bautista Baylon, Polytechnic University Of The Philippines, Philippines**