

Review Form 3

Journal Name:	Asian Journal of Advanced Research and Reports
Manuscript Number:	Ms_AJARR_129786
Title of the Manuscript:	Flexural Behavior of Reinforced Concrete Beams with Embedded Conduit Pipes for Services: An Experimental and Numerical study.
Type of the Article	Original Research Article

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

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PART 1: 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>
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 manuscript presents an insightful experimental and numerical investigation into the flexural behavior of reinforced concrete beams embedded with PVC conduit pipes. The findings address a practical construction practice of embedding service pipes, providing empirical data and simulation results on its effects on structural performance. The study is particularly significant for advancing sustainable construction practices and ensuring structural safety when embedding utility services in beams. Furthermore, the use of numerical modeling with ABAQUS to validate experimental results adds robustness to the conclusions, making it a valuable reference for researchers and practitioners in civil and structural engineering.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	
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 well-organized, summarizing the study's objectives, methodology, key findings, and conclusions. However, adding quantitative details about numerical validation, such as the degree of agreement between experimental and FEM results, could enhance its comprehensiveness. Suggested Additions: Can briefly mention the correlation percentage or the error range between experimental and numerical results. Can also include a statement on the implications of the findings for structural design codes.	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically sound and well-supported by experimental and numerical data. However, minor clarifications or elaborations could improve the paper: Provide a more detailed discussion on the limitations of the study, particularly regarding the range of PVC pipe diameters and positions tested. Consider addressing potential implications for design standards (e.g., ACI or Eurocodes) in cases where service conduits are embedded.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Yes	

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Is the language/English quality of the article suitable for scholarly communications?	The language is mostly suitable for scholarly communication. Some sentences in the introduction and methodology sections could benefit from improved clarity and conciseness. Additionally, minor grammatical adjustments (e.g., singular/plural agreement) would enhance readability. Key Language Suggestions: Replace "the embedment of PVC pipes in the beams resulted in a significant increase in the average mid-span deflection" with "embedding PVC pipes significantly increased the average mid-span deflection." Avoid redundancy, such as "control beams had higher failure loads and fewer cracks than beams with embedded pipes," by consolidating similar observations. consistently refer to the embedded pipes as "conduit pipes" or "PVC pipes" and avoid interchanging terms.	
<u>Optional/General</u> comments	-	

PART 2:

	<u>Reviewer's comment</u>	<u>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)</u>
<u>Are there ethical issues in this manuscript?</u>	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	

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