

Review Form 2

Book Name:	Innovative Solutions: A Systematic Approach Towards Sustainable Future
Manuscript Number:	Ms_BPR_3724.10
Title of the Manuscript:	EXPEREMENTAL INVESTIGATION ON STRENGTH CHARACTERISTICS OF GEOPOLYMER CONCRETE PREPARED FROM FLYASH AND CCR
Type of the Article	Complete Book chapter

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	<p>This manuscript is important for the scientific community as it addresses two critical issues: the depletion of natural resources due to rapid urbanization and the environmental impact of traditional concrete production. By utilizing industrial byproducts such as fly ash (FA) and calcium carbide residue (CCR) in the production of geopolymer concrete (GPC), the study offers a promising alternative that could significantly reduce the carbon footprint associated with concrete manufacturing. The investigation of GPC's workability and strength characteristics provides valuable insights into optimizing its use in construction, especially in the context of sustainable development. The positive results, particularly the improvement in compressive strength, make this research highly relevant for advancing eco-friendly building materials.</p> <p>I appreciate this manuscript for its innovative approach to utilizing waste materials in concrete production, as it not only enhances the sustainability of the construction industry but also contributes to waste valorization, providing a dual environmental benefit.</p>	
Is the title of the article suitable? (If not please suggest an alternative title)	Suitable	
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 provides a general overview of the study, but there are several areas where clarity, structure, and comprehensiveness could be improved. First, the opening sentences describing the problem could be made more concise. For example, the phrase "Endless infrastructural activities to meet the requirements of rapidly growing cities" can be simplified to "Rapid urbanization and infrastructure development," which would make it clearer and more direct. The statement "leads to consumption of natural resources" can be more specific, such as "leads to the depletion of natural resources."	
Are subsections and structure of the manuscript appropriate?	yes	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript demonstrates scientific robustness and technical soundness by addressing pressing environmental challenges through the innovative use of industrial by-products in geopolymer concrete. The study is grounded in solid scientific principles, as it investigates the impact of substituting traditional cement with fly ash (FA) and calcium carbide residue (CCR) on the workability and compressive strength of geopolymer concrete (GPC). The use of well-established testing methods, such as slump cone tests and compressive strength tests, ensures the reliability of the results. The findings, which show a significant increase in compressive strength (from 75 MPa to 136 MPa), suggest that the prepared GPC is not only technically feasible but also a promising alternative to traditional concrete in terms of both strength and environmental sustainability. This approach provides a viable solution to reduce waste generation and mitigate the carbon footprint of the construction industry, further enhancing the manuscript's scientific merit.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	nothing	

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Minor REVISION comments		
Is the language/English quality of the article suitable for scholarly communications?	yes	
Optional/General comments	Conclusion should be in paragraph and need to add more clarity.	

PART 2:

	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)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

Reviewer Details:

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