|  |
| --- |
|  |
| Book Name: | [**New Horizons of Science, Technology and Culture**](https://bookstore.bookpi.org/product/new-horizons-of-science-technology-and-culture-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5618** |
| Title of the Manuscript:  | **The Effect of W/B Variation and Curing Temperature on the Characteristics of Foamed Concrete Incorporated with Palm Shell Ash** |
| Type of the Article | **Book Chapter** |

|  |
| --- |
| 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 manuscript is important because it looks at how we can make concrete more eco-friendly by using palm shell ash, a waste material, to replace part of the cement. This not only helps reduce environmental waste but also lowers the use of cement, which is good for the planet. The study gives useful information on how to improve the strength of lightweight concrete by adjusting the mix and curing conditions. It can help researchers and engineers develop better, more sustainable materials for future building projects. |  |
| **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 shares a good amount of information, but it feels a bit too detailed—especially with mentions of lab names and testing dates. Keeping the abstract more focused on the main aim, methods, and key results would make it more effective and easier to read. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **Yes** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | **Yes** |  |
| Is the language/English quality of the article suitable for scholarly communications? | The writing is generally clear, a careful review of grammar, or getting support from someone with strong academic writing experience, would be a good idea. |  |
| Optional/General comments | 1. The topic of this paper is quite meaningful. Using palm shell ash (PSA) in foamed concrete is a smart and eco-friendly idea, and it's great to see research focusing on reducing waste and cement usage.
2. The purpose of the study is clear, and looking into how water/binder ratio and steam curing temperature affect the concrete’s properties is a thoughtful and well-planned approach.
3. The experimental work is well chosen, using standard tests like XRD, XRF, and compressive strength testing. However, it would be helpful to include a few more technical details, which would add depth to the study and help readers better understand the process.
4. The results are useful and clearly reported. It’s good to see an optimum mix identified. Still, the strength of the findings would be improved by adding statistical details, like standard deviation or average values. This shows how consistent the results are.
5. The paper describes the results well, but the explanation could go a little deeper. For example, when PSA increases the setting time or reduces flow, it would be helpful to explain why this happens maybe by linking it to chemical behavior or previous research.
6. The compressive strength of 12.87 MPa seems promising for lightweight concrete, but the paper doesn’t say whether this meets any standards or how it compares with similar studies. Including a short comparison would help show how practical and usable this material really is.
7. The writing is generally clear, a careful review of grammar, or getting support from someone with strong academic writing experience, would be a good idea.
8. In some places, the content feels a bit repetitive, and there are a few details that could be trimmed. Keeping the writing simple, clear, and to the point will make the paper more engaging.
9. The conclusion does a nice job summarizing the main findings, but it could be even better by briefly highlighting the real-world benefits—like reducing environmental impact or making construction more affordable.
10. Overall, this is a valuable piece of work with strong potential. The topic is timely, the experiments are well selected, and the idea of using PSA is both innovative and practical.
 |  |

|  |
| --- |
| **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?**  |  |  |

**Reviewer details:**

**Ravikantha Prabhu, St Joseph Engineering College, India**