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## REVIEWER'S REPORT

Manuscript No.: **IJAR-57534**

**Title: Artificial Intelligence-Driven Predictive Analytics Framework for Sustainable Geopolymer Concrete Using Agricultural Waste Materials.**

### Recommendation:

Accept as it is .....

**Accept after minor revision...✓.....**

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance		✓		

Reviewer's ID: JPR- **098**

### *Detailed Reviewer's Report*

**Decision: Accept after Minor Revision**

### *Summary:*

The manuscript presents an **AI-driven predictive analytics framework for sustainable geopolymer concrete** using agricultural waste materials and Random Forest Regression for predicting strength and setting-time characteristics.

### *Strengths:*

- Relevant and interdisciplinary topic combining **AI + sustainable construction**
- Good integration of **machine learning with material engineering**
- Clear system architecture and workflow explanation
- Strong environmental and sustainability motivation
- Practical predictive framework with rapid evaluation capability

## REVIEWER'S REPORT

### *Major Issues:*

- Dataset size is **very limited (~30 samples)**, reducing model reliability
- Evaluation metrics are insufficient (only “~75% accuracy” reported for regression tasks)
- No comparison with other ML models (ANN, XGBoost, SVR, etc.)
- Experimental validation and statistical analysis are weak

### *Minor Issues:*

- Some sections are overly descriptive and repetitive
- Figures/visualizations are missing despite analytical claims
- Minor formatting and grammatical inconsistencies

### *Final Comment:*

The manuscript presents a **useful and environmentally significant application**, but stronger experimental validation, comparative analysis, and clearer regression evaluation metrics are required before publication.