



Construction and Building Materials



Volume 352, 17 October 2022, 129019

Pre-bcc: A novel integrated machine learning framework for predicting mechanical and durability properties of blended cement concrete

```
Hisham Hafez <sup>a</sup> ○ ☑, Ahmed Teirelbar <sup>b</sup> ☑, Rawaz Kurda <sup>c</sup> ☑, Nikola Tošić <sup>d</sup> ☑,

Albert de la Fuente <sup>d</sup> ☑

Show more ✓

+ Add to Mendeley ≪ Share 🥦 Cite

https://doi.org/10.1016/j.conbuildmat.2022.129019 ¬

Get rights and content ¬

Under a Creative Commons license ¬
```

Highlights

- Database generated from 150 publications on <u>blended cement</u> concretes with five different <u>supplementary cementitious materials</u>.
- Non-linear multi-layered machine learning regression model generated to predict the performance of binary and ternary blended cement concretes.
- Developed model shows statistical performance comparable to existing