**List of Researches By Input Text**

| Research Title | Abstract | Department | Course | Faculty Adviser | Researchers | Date Completion |
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| The Study on the Effectiveness of Banana Pseudo-stem Fiber as a Reinforcing Material in Fiber Cement Board Production | The demand for fiber cement boards in the Philippines increased over the years, however, there is a decline in FCB production due to the availability of raw materials. However, the lignocellulosic fragment present in banana stem fiber has the potential to act as a strengthening component in fiber cement panels. This study investigates the effectiveness and relevant characteristics of FCB utilizing banana pseudo-stem fiber. DOST-FPRDI built and tested the FCB, generating samples with 3%, 6%, and 9% wt. of banana pseudo-stem fiber. The investigation examined the physical characteristics, including water absorption and thickness swelling, as well as the mechanical characteristics, such as modulus of rupture and nail head pull-through, of FCB with different amount of variables. The results indicate that the FCB with 3% wt. of banana pseudo-stem fiber has the lowest average value for water absorption (9.02%) and thickness swelling (0.63%). Additionally, the FCB with 3% wt. of banana pseudo-stem fiber has the highest value for modulus of rupture (2.87 MPa). The FCB with 9% wt. of banana pseudostem fiber has the highest average value for the nail head pull-through test (74.10kg). Ultimately, the researchers conclude that banana pseudo-stem fiber is a potent reinforcing material in fiber cement board production. | MAAD | BETMECT | Engr. Aaron Paul I. Carabbacan, Engr. Janeil Mico Panganiban, | Astudillo, Grachelle M., Ramos, Dhenice Ronnieann M., | 2024-03-29 |