List of All Researches

Research Title	Abstract	Department	Course	Faculty Adviser	Researchers	Date Completion
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

Research Title	Abstract	Department	Course	Faculty Adviser	Researchers	Date Completion
A Tracvel Demand Forecast On Pedestrian Footbridges: A Case Study On Footbridges In Taguig City	This study aimed to develop a Travel Demand Forecasting Model to estimate for pedestrian footbridges to estimate travel behavior and associated demand for a certain future time frame, based on assumptions about land use, the quantity and characteristics of trip makers, and the structure of the transportation system. Using Basic Gravity Model Method, the projected generated trips to be distributed for trip production and trip attraction are computed. It is observed that Bicutan footbridge has the greatest value of utility cost considering the time incurred and monetary cost in traversing the footbridge. By applying Pedestrian Level of Service to each footbridge using HCM manual, it is seen that Bicutan footbridge has the lowest level of services.	EAAD	BSEE	Joan Mag-isa, Pops Madriaga,	Aimer Jay Pedrozo, Ron Michael Dejan,	2024-03-30