THE STRENGTH OF MORTISE & TENON AND DOWEL JOINT FROM COCONUT TRUNK (*Cocos nucifera*)

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ABSTRACT

THE STRENGTH OF MORTISE & TENON AND DOWEL JOINT FROM COCONUT TRUNK (*Cocos nucifera*)

Mortise & tenon and dowel joint have been widely used for centuries, they are still favors for many types of construction. The jointing system is a new technology in the manufacturing industry, especially in furniture manufacturing and building construction. The aim of this study was to determine the strength by using the bending and withdrawal test methods.The average moisture content of wood materials used was 10-12%. The setup was to determine the strength properties of joint using two types test method by using the bending test method and withdrawal test method. From this withdrawal test, the mortise & tenon had high value of maximum load as 4068 N and at the bending test, the mortise and tenon also had high value of maximum load as 302.98 N. The conclusion of the study was the bottom level of the trunk had the highest strength compared to the other levels, middle and top, and mortise & tenon joint had the higher strength compare to the dowel joint.