BENDING STRENGTH PROPERTIES OF THREE DIFFERENT FINGER PROFILE USING DARK RED MERANTI (*Shorea spp*), MERAWAN (*Hopea spp*) AND BINTANGOR (*Calophyllum spp*)

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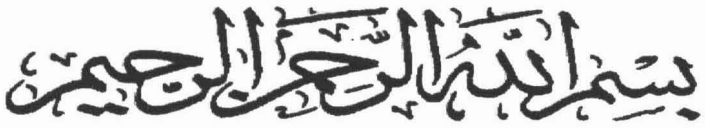
Final Project Paper Submitted in Partial Fulfillment for the Diploma in Wood Industries, Faculty of Applied Science, Universiti Teknologi MARA Pahang

April 2008

ACKNOWLEDGEMENT



For firstly important thanks, we was thankful to Allah S.W.T, the most gracious and the most merciful, because give our healthy physical, mental and stronger to finish this thesis and also can finish this report at the submitted date in subject WTE 375 (Project) which under Prof Madya Dr. Jamaludin bin Kasim as a lecturer for this subject. We also want to wish my special thanks to our advisor, Mr. Ahmad Fauzi bin Othman who willing to contribute his knowledge, time, and assist to we until completed our project successfully.

Then, also thankful to the staff in DIP workshop such as En Rosli and En. Shahril, who helped we either direct or indirectly during the implementation of this project. Thanks for your support and cooperation. Unforgettable to all lecturer and staff for their support and commitment. Thanks to the other groups for their commitment and co-operation during the implementation of this project. Without commitment from them maybe it is difficult for us to finish this project and this report successfully.

Finally, we would like to raise our gratitude to beloved family, especially to mother, father and also sibling who had always support we in our study even just from far. Thanks for all and good deeds from them can we remember.

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ABSTRACT

BENDING STRENGTH PROPERTIES OF THREE DIFFERENT FINGER PROFILE USING DARK RED MERANTI (*Shorea spp*), MERAWAN (*Hopea spp*) AND BINTANGOR (*Calophyllum spp*)

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Finger jointing is one of the popular jointing in wood products based in wood industry. At the present, this product is the most popular in the furniture industry as substitute material to replaces the solid wood in building construction and furniture manufacturing. This study was related with the objectives to determine the bending strength properties of three different finger profile using dark red meranti (*shorea spp*), merawan (*hopea spp*) and bintangor (*calophyllum spp*). The three different finger profile include twelve finger profile, ten finger profile, and eight finger profile where its profile were bonding or connect with Polyvinyl acetate (PVa) resin. The Implementation of bending testing generally to find the strength properties of the specimen. After finish the study, we get that the twelve finger profile produce high strength than ten and eight finger profile. It happen because twelve finger profile have more surface area are bonded or contact with resin. For species, we conclude that Bintangor (*Calophyllum spp*) are stronger than Merawan (*Hopea spp*) and Dark Red Meranti (*Shorea spp*). Bintangor produce high strength and very durable because it have small size of vessels and less exposed of vessels that why resin difficult to fill the vessels and bonded perfectly to the jointing surface. Therefore, the strength properties of each finger profile are compare with standard range of three species used which is dark red meranti (*shorea spp*), merawan (*hopea spp*) and bintangor (*calophyllum spp*). It is hope that the value derived from this study can be a beneficial guide in assessing the properties of three different finger profile.