

**FINISHING PROPERTIES OF A COFFEE TRAY FROM  
( *Neolamarckia cadamba* )**

**NURULNAJIHAH BINTI AHMAD**

**Final Year Project Report Submitted in  
Partial Fulfillment of the Requirement for the  
Bachelor of Science ( Hons ) Furniture Technology  
In the Faculty of Applied Sciences  
Universiti Teknologi MARA (Pahang)**

**JANUARY 2014**

## **ACKNOWLEDGEMENT**

First and foremost praise to Allah the Almighty for his mercy. With his approval I successfully completed my proposal report.

This report would not have been possible without the strong support from my supervisor, Madam Nur Hannani Abdul Latif for their constant guidance, healthy criticism, persistent inspiration, and constant encouragement throughout the course of this study.

Secondly, I would like also thank to my project coordinator, Associate Prof. Dr. Wan Mohd Nazri bin Wan Abd. Rahman, Wood Industry Workshop staff and those who have directly contributed to success of this proposal report.

I also grateful to my parent and other members for their sincere encouragement and prayers. Finally I wish to express my special thanks to my beloved committees for their invaluable more support and encouragement during my study.

## **ABSTARCT**

### **FINISHING PROPERTIES OF COFFEE TRAY FROM KELEMPAYAN**

*Neolamarckia cadamba*

High level of demand occurred to high quality furniture in Malaysia. Basically, the quality of furniture produced is depending on the material and production process. Moreover, the finishing's quality of the furniture also plays their role in classifying the quality level of the product. This study is conducted to determine the furniture design of a coffee tray from Kelempayan wood and to compared the effect of different finishing system on finishing properties of a coffee tray from Kelempayan wood as a replacement for timber resources which are declining at the best finishing system that should be applied in getting the best finishing properties of a coffee tray from Kelempayan. From this study, it shows that different finishing system will affect the finishing properties of Kelempayan (significant). It can be concluded that finishing properties of a coffee tray by using finishing system B (twice sanding, sealing and coating) is better than finishing system A because when using finishing system B it enhance the appearance of the wood and can be maintain for longer period times.

## TABLE OF CONTENT

<b>APPROVAL SHEET</b>	ii
<b>ACKNOWLEDGEMENT</b>	iii
<b>TABLE OF CONTENT</b>	iv
<b>LIST OF TABLES</b>	vii
<b>LIST OF PLATES</b>	viii
<b>LIST OF FIGURE</b>	ix
<b>ABSTRACT</b>	x
<b>ABSTRAK</b>	xi
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 General description	1
1.2 Problem statement	4
1.3 Objectives	5
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.1 Kelempayan ( <i>Neolamarckia cadamba</i> )	6
2.1.1 Plantation	7

2.1.2	The uses of Kelempayan	8
2.2	Wood Finishing Technology	9
2.2.1	Introduction of Wood finishing	9
2.2.2	Types of finishing process	10
2.2.3	Advantages of wood finishing	11
2.2.4	Finishing materials	12
2.2.4.1	Varnish	12
2.2.4.2	Shellac	13
2.2.4.3	Lacquer	13
2.3	Finishing Testing	14
2.3.1	Surface roughness test	14
2.3.2	Scratches test	14
2.3.3	Hardness test	15
2.3.4	Household test	15

### **CHAPTER 3: MATERIAL AND METHOD**

3.1	Material	16
3.2	Methodology	16
3.2.1	Preparation of test specimen	16