

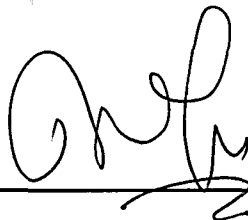
**FUNCTIONAL PROPERTIES OF PROTEIN HYDROLYSATES
OBTAINED FROM THE PIGEON PEA (*Cajanus cajan*)**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.)
Food Science and Technology
In Faculty of Applied Science
Universiti Teknologi MARA**

JUNE 2015

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ACKNOWLEDGEMENT

Alhamdulillah, gratitude to Allah, the Most Merciful and the Most Gracious, whom with His willing, has given me the opportunity to complete this thesis for my final year project. I would like to express my highest gratitude and appreciation for all who helped me before, during and after completing my thesis. In the first place, I would like to record my gratitude to Dr. Normah Ismail for hearken supervision, guidance, and advice from the first day of early stage of this study and giving me constant encouragement using her inconceivable experiences throughout this thesis. Above all she provided me constant encouragement and support in various ways.

I also would like to thanks to all the lab assistance for their constant help during the times when I was in the laboratory doing the analysis, they helped me from the start till the finishing. I would like to extend my special thanks to my beloved friends for their help and support. Words fail to express my appreciation to my team mates for their persistent confidence in finishing this project, listing to my frustration patiently. My parents, Mohd Radzi Bin Bakar and Basariah Binti Ismail, deserve special mention for their inseparable love and prayers, which helped me all the way for successful completion of my thesis.

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ABSTRACT

Proteins are essential components of the diet for human nutrition as sources of energy and amino acids. Protein hydrolysate is product from by enzymatic conversion of protein into smaller peptides. Pigeon pea containing a high protein and the seeds can be prepared into variety of meals and. There only a few information and studied on the protein hydrolysate and functional properties of the pigeon pea. Several analyses were carried out to analyze the chemical and functional properties of the protein hydrolysate obtained from the pigeon pea. The degree of hydrolysis produced by pigeon pea hydrolysate in presence of 5% flavourzyme was 12.44% and in presence of 5% alcalase was 14.53%. The protein solubility was higher at pH 6 and 7 and minimum solubility at pH 4 for both of enzyme substrate. Pigeon pea hydrolysate in presence of 5% flavourzyme a better in water and oil absorption capacity properties while pigeon pea hydrolysate in presence of 5% alcalase a better in foam stability and capacity properties. Emulsifying properties for both of samples are higher capacity index at pH 7. It was also found that molecular weight for pigeon pea hydrolysate of 5% flavourzyme detected at the range from 50 kDa to > 0 kDa and pigeon pea hydrolysate in presence of 5% alcalse well be detected at the range from 100 kDa to >10 kDa. Functional properties showed in both of pigeon pea hydrolysate in presented of 5% flavourzyme and 5% alcalase give their potential in food industry.