**Design of weight grader for pineapple**

ABSTRACT

There are five types of pineapple in Malaysia which are Sarawak, Josapine, Morris, Gandol and N36. Each type of pineapple can be classified according to their weight classification such as S, M and L based on weight range set by Federal Agriculture Marketing Authority (FAMA). The main objective of this project is to design a weight grader for pineapple that is portable, which means it is applicable for both indoor and outdoor usage. This weight grader is basically for small scale industries farmers to grade the fresh harvest pineapple which is currently done manually. In the design, we use Peripheral Interface Controller (PIC) microcontroller to process the input from electromechanical load cell and compute the weight and grade of the pineapple. Then, the output of weight and grade measurement will be displayed on Liquid Crystal Display (LCD) and Light Emitting Diode (LED) display respectively. Data transferring system is also developed in order to store the information of the total weighed and graded pineapple. As a conclusion, this weight grader is suitable to be used by small scale industries, replacing the manual grading process by accurately weighing and grading the pineapples.