

**THE CONCEPTUAL STUDY IN IMPROVING SEPARATION PROCESS
USING ELECTRO-PNEUMATIC SYSTEM IN PALM OIL INDUSTRY**

NOR AZWAN ABDUL SHUKOR

(99082813)

MOHD.RIZAL MOHAMAD SADALI

(99082719)

NORHAZWAN NORIZAN

(99082845)

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Universiti Teknologi MARA**

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**" *TN* THE NAME OF ALLAH, THE MOST GRACIOS, THE MOST
MERCIFUL, WE PRAISE HIM AND WE SEEK HIS BLESSING ON HIS
NOBLE PROPHET MUHAMMAD S.A. W «**

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ABSTRACT

Automation can be defined as process of following a predetermined sequence of operations with little or no human intervention, using specialized equipment and devices that control and perform the manufacturing process. Automation processes provide the widest usage in the industrial sector. It can be categorized in several categories according to its usage and also have many advantages in making certain process become easier, produce better quality product and increase production rate. Therefore, we prefer to create a system, which can be function as a separator for palm oil industry by using Electro-pneumatic system. It will separate between free and unstripped palm bunch that based on its height by using a sensor. Actually, the main purpose of our project is to reduce human intervention in palm oil industry which still use human for separation process. We also have discussed and described about the components that used in our system. The component that used in our system is double acting cylinder, push button, limit switch, light sensor, directional control valve, electrical relay, DC power supply and air compressor. Besides that, we also show some advantages and disadvantages in the purpose of to see the limitations by using this Electro-pneumatic system.

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