

**FINAL YEAR PROJECT REPORT**

**DIPLOMA IN MECHANICAL ENGINEERING**  
**(MANUFACTURING)**  
**FACULTY OF MECHANICAL ENGINEERING**  
**UNIVERSITI TEKNOLOGI MARA UiTM**  
**SHAH ALAM**

**AUTOMATION:**  
**PUNCHING MACHINE**

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# SYNOPSIS

**Automation** can be defined as an operation of an equipment without ANY usage (about almost 100%) human work, and instead of it, it is operated by using another system that take a major part in the working process; for example: -

1. Mechanical System.
2. Electrical System.
3. Pneumatics...etc...etc.

\*or any system that can be considered suitable to the working process.

Automation process provides the widest usage in the industrial sector. It can be categorised in several categories according to its' usage and also advantages in the process of producing a quality product.

Polymer producing sector (either small, small medium, medium, etc.... etc) have grew up rapidly in our nation because of the demand concerning to the product. And our overview on one of the SMI (Small Medium Industry) factory in Malacca that produced polymer material, we've discovered that a problems occurred in the production line, and (Alhamdulillah) it given us an idea to do an upgrading project; "automation of a machine". Because we strongly believed that (Insya-Allah) we can solve the problems.

Syarikat Dasar Asli Sdn. Bhd. is the factory that involved with our project analysis. As we've just mentioned before, there is a problem occurs on the production line due to the machine used in this line. We found that this machine can only be operated by man. As a result, productivity is affected meaning that it is not at an optimal level. (Alhamdulillah), after a constructive discussion with the management, permission is given to us to an upgrading work to the manual operated machine (refer to enclosed letter)I).

And for that, we suggested to upgrade the machine with a MECHANICAL SYSTEM powered by an electrical motor. This machine is originally man-operated and if after we succeeded, the use of manpower will be reduced greatly.

In a nutshell, we hope that our initiative (Insya-Allah) will benefits Syarikat Dasar Asli Sdn. Bhd. and at the same time increasing the productivity of the product outcome.

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ENCLOSURE

## **A. APPRECIATION**

Alhamdulillah, at last, our final project that was planned, had been fully realised and succeeded. Although this project is not that sophisticated, but the satisfaction of realising it can't be expressed into words.

First of all, we would like to thanks Prof. Madya Ir. Iskandar Abdullah as our project advisor that had given us a well-motivated instruction and also advise to have been guiding us during this project.

Thousands of thanks to the factory party for not only trusted us to implement this project, they also gave us support and Alhamdulillah satisfied with result produced. To En. Osman Sabar, the technicians of Syarikat Dasar Asli Sdn. Bhd., En Rodzi Abd. Razak and all the people around that 'd been helping us to realise this project. Thank you to all of you...

Alhamdulillah, we also so grateful that from this project we had gained a lot of experience that opened our mind to the real world of industry...

And for that we begin this project report with...

**BISMILLAHIRRAHMANIRRAHIM...**