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**FINAL YEAR PROJECT REPORT
B.ENG (HONS) MECHANICAL ENGINEERING
'COMPUTER AIDED ENGINEERING OPPORTUNITIES
IN INJECTION MOLDING DESIGN'**

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ABSTRACT

Towards globalization, utilization of information technology (IT) in engineering activities could help a manufacturing organization to gain a better prospect in market competition.

In plastic industries, the utilization of CAD/CAE/CAM system could help them to become more competitive by enhancing manufacturing design quality, quantity, reduce their product design cycle and will enable them to react quickly to the market demands.

CAE (Computer Aided Engineering) system allows mold designer to perform analysis of their CAD (Computer Aided Design) design to determine whether the design is free from any errors before the mold is fabricated. The two ways communication of the systems allow the designer to use trial and error method at design stage until the best design dimensions and optimum process condition is defined. Simulation of machining process can be done by CAM (Computer Aided Manufacturing) software to obtain a machine code for machining.

The objective of the project is to evaluate the effectiveness of CAD/CAE/CAM system so that comparison can be made on the quality of the product produced by using this system against conventional method. The value of the product is demonstrated through a case study.

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