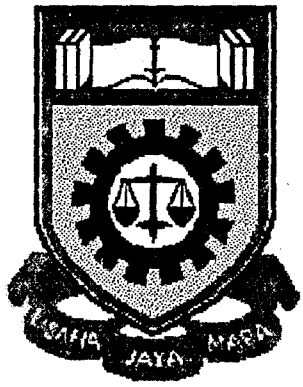


FINAL YEAR PROJECT REPORT
DIPLOMA IN MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING
MARA INSTITUTE OF TECHNOLOGY
SHAH ALAM

# COMPUTER AIDED FLOW VISUALIZATION

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## 1.1 COMPUTER AIDED FLOW VISUALIZATION.

COMPUTER AIDED FLOW VISUALIZATION TECHNIQUES:

The use of the digital image process in combination with various display devices to enhance the visual understanding of flow phenomena is known as computer - assisted or second - generation flow visualization. Its overall objectives are to improve image quality, to highlight certain aspects of image

(eg. edges), and to provide methods that can illustrate flow properties and structures. Its scopes include:

1. Image synthesis which is the creation of visual image from either field measurement ( i.e. quantitative data ) or computation ( i.e. analytical simulations )
2. Image enhancement through the modification of certain aspects of the original image.
3. Image reconstruction of a three-dimensional image from a two-dimensional image taken from the conventional flow visualization.

Second-generation flow visualization can be classified into two broad categories: Video imaging and Computer graphics.

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