THE APPLICATION OF DTM IN HIGHWAY DESIGN

(IBM PC)

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PREFACE

This project was carried out and the report was submitted to the Departmnet of Land Surveying, School of Engineering, MARA Institute of Technology, Shah Alam, Selangor, as a partial fulfilment for the award of Advanced Diploma in Land Surveying.

The project was supervised by Encik Redzwan Misran and had received a lot of help from others whom the author greatly appreciated.

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ABSTRACT

Digital Terrain Model (DTM), have found numerous applications in many field. However, we shall restrict ourselves here to two main subjects, considering photogrammetric data acquisition techniques and civil engineering applications.

The sampling method is constrained to an already selected coordinates of Intersection Points (IP) that defined the centre-line, drawn on a large scale map. The method tends to provide an optimum longitudinal profile and cross-section digital data.

The centre-line may be composed of straight and curved line segments. The only sampling of ground data is stored in term of grid that will be manipulated throughout the programming.

The title of this thesis, "The application of DTM in Highway Design"; will somehow tells us the reliability of a personal computer with limited memory to execute a programme package which is normally done by high capacity computer.

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