

**ESTIMATION OF THE DESIGN ELEMENTS OF
HORIZONTAL ALIGNMENT BY THE METHOD OF
LEAST SQUARES**

JALINA BINTI RABI

**B.ENG (Hons) (Civil)
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ALIGNMENT BY THE METHOD OF LEAST SQUARES**

By

JALINA BINTI RABI

Report is submitted as
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DECLARATION

I (Jalina Binti Rabi ,2003366948) confirm that the work is my own and the appropriate credit has been given where reference has been made to the work of others.

(.....)

Jalina Binti Rabi
15 November 2006

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ABSTRACT

Although the construction of highway takes place in three dimensional spaces, the procedures that govern their design have been developed within 3 separate sets of two dimensional relationship that represent the plan, profile, and cross-section view. The plan view encompasses the horizontal alignment of the road in the x-y plan. This study focused only on horizontal road alignment where the road linear shape is sampled centerline path and deduced using Least Square Method to estimate the design element of the road curve under studied. The results were analyzed and compared with the existing road element in the design.