



FINAL YEAR PROJECT REPORT
ADVANCED DIPLOMA IN CIVIL ENGINEERING
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**BEHAVIOUR OF THIN WALLED STRUCTURES
SUBJECTED TO TORSION**

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SYNOPSIS

Finite Element Method is known exclusively to solve structural engineering problems. This project uses the package programme "ANALYSIS SYSTEM" (ANSYS) to compare the theoretical results with experimental results.

The comparison concentrates on the angles of twist due to torsion obtained from the finite element programme and the results from the experimental investigation.

Introduction And Scope Of Study

1.1 Introduction

In general, cold formed steel structural members provide ¹/₂ advantages in building. This type of structural members can be manufactured relatively for light load or short span. It also can be produced economically and consequently favorable strength-to-weight ratio which can then provide useful surfaces.

As compared to other materials such as timber and concrete, cold-formed steel is much lighter and has high strength to weight ratio. Savings on transport and erection result from this. Furthermore it can be easily prefabricated. Cold-formed steel members are uniform in quality and can have more accurate detailing. Modern civil engineering structural members frequently take the form of thin walled cold-formed steel section which ally the advantages of comparatively low weight with high strength.

1.2 Scope of Study

Finite Element Method (FEM) was used in the analysis . The purposes of this project were :-