

Design of Composite Stairs in UTP Academic Blocks

By

Mohd Azuan bin Mohd Azlan

Submitted to the Mechanical Engineering Programme

in Partial Fulfillment of the requirement

for the Degree

Bachelor of Engineering (Hons)

(Mechanical Engineering)

Universiti Teknologi Petronas

Bandar Seri Iskandar

31750 Tronoh

Perak Darul Ridzuan

©Copyright 2009

by

Mohd Azuan Bin Mohd Azlan, 2009

CERTIFICATION OF APPROVAL

Design of Composite Stairs in UTP Academic Blocks

By

Mohd Azuan Bin Mohd Azlan

Submitted to the Mechanical Engineering Programme
in Partial Fulfillment of the requirement
for the Degree
Bachelor of Engineering (Hons)
(Mechanical Engineering)

Approved:

Mr. Muhamad Ridzuan bin Abd. Latif
Project Supervisor

UNIVERSITI TEKNOLOGI PETRONAS
TRONOH, PERAK

January 2009

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

(Mohd Azuan Bin Mohd Azlan)

ACKNOWLEDGEMENT

Praise to Allah S.W.T for the opportunity to successfully completed the thesis, with the given time and blessings in the way that everything were made at ease. Special mention needs to be made for individuals that made this thesis possible.

First, I would like to thank to Mr. Muhamad Ridzuan bin Abd. Latif of Mechanical Engineering department as supervisor for the project. Much of the work on this thesis was accomplished by the help from him.

Next appreciation to all technical personnel from Mechanical Department especially Mr. Anuar, Mr. Suria Adam, Mr. Zamil, Mr. Faisal and others from Meteorology Laboratory and Geotechnical Laboratory for their kindness and assistances in operating the equipments, for every lab work to be done.

Special thanks to my colleagues who are doing the related study over the course of my thesis work. All of the helping hands, contributions and efforts are greatly appreciated.

Thank you.