UNCERTAINTY ANALYSIS OF ARTIFICIAL NEURAL NETWORK (ANN) APROXIMATED FUNCTION FOR EXPERIMENTAL DATA USING SEQUENTIAL PERTUBATION METHOD

MOHD JUKIMI BIN JONI

A report submitted in partial fulfilment of the requirements
for the award of the degree of
Bachelor of Mechanical Engineering

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Mechanical Engineering.

Signature:
Name of Supervisor: Mr. WAN AZMI BIN WAN HAMZAH
Position: LECTURER
Date: 23 NOVEMBER 2009

STUDENT'S DECLARATION

I hereby declare that the work in this project is my own except for quotations and summaries which have been duly acknowledged. The project has not been accepted for any degree and is not concurrently submitted for award of other degree.

Signature:
Name: MOHD JUKIMI BIN JONI
ID Number: MA06058
Date: 23 NOVEMBER 2009

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF SYMBOLS

%	Percent
$\dot{m}$	Mass flow rate
T_1	Inlet temperature
T_2	Outlet temperature
A_m	Mean area
K	Kelvin
K_g	Kilogram
s	second
mm	millimetre

LIST OF ABBREVIATIONS

SP	Sequential Perturbation
ANN	Artificial Neural Network
J	Joule
U%	Uncertainty percent
FYP	Final Year Project
NN	Neural Network
CNS	Centre Nervous system
RBF	Radial Basic Function
MATLAB®	The Language of Technical Computing