

AIR CONDITIONING STUDY FOR AUTOMOTIVE APPLICATION

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AIR CONDITIONING STUDY FOR AUTOMOTIVE APPLICATION

ALAUDDIN HAFIZ BIN YUSOF

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

Faculty of Mechanical Engineering  
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**LIST OF SYMBOLS**

$P$	Pressure
$T$	Temperature
$h$	Enthalpy
$Q_{high}$	Heat Rejection
$Q_{low}$	Cooling Effect
$W_c$	Work of Compressor
$m$	mass
$\rho$	Density
$V_c$	Compressor Displacement Volume
$\omega_c$	Speed of Compressor
$\eta_c$	Compressor Volumetric Efficiency
$R$	Gas Constant
$\dot{m}$	Mass Flow Rate
$\dot{V}_c$	Compressor Volumetric Rate
kg	Kilogram
°C	Degree Celcius
kJ	Kilojoule
Pa	Pascal
s	Second
m	Meter

**LIST OF ABBREVIATIONS**

COP	Coefficient of Performance
TXV	Thermostatic Expansion Valve
FOV	Fixed Orifice Tube
VCRC	Vapor Compression Refrigeration Cycle