

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DEVELOPMENT OF AN ENGINE AND
VEHICLE MANAGEMENT SYSTEMS

M/1021

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Development of an engine and vehicle management systems

Project report submitted by:

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SUMMARY

This project is about the car engine the function of working and the performance development. The management systems for the vehicle and the engine running and all the new advanced electronic systems used. There is a description of engine parts and figures that will help in better understanding

CONTENS

CHAPTER 1 Engine operations

- 1.1 How an engine works
- 1.2 Internal Combustion
- 1.3 Understanding the Cycles
- 1.4 Counting Cylinders
- 1.5 Displacement
- 1.6 Other Parts of an Engine
- 1.7 Other secondary engine systems
 - 1.7.1 Ignition System
 - 1.7.2 Cooling
 - 1.7.3 Starting System
 - 1.7.4 Lubrication System
 - 1.7.5 Air-intake System
 - 1.7.6 Fuel System
 - 1.7.7 Exhaust System

CHAPTER 2 Controlling Electrical Systems

- 2.1 What does the computer in a car do
- 2.2 Sophisticated Engine Controls?
- 2.3 ECU Components
- 2.4 Advanced Diagnostics
- 2.5 Easier Design and Manufacturing
- 2.6 Smart Sensors
- 2.7 Simplified Wiring
- 2.8 Safety, Comfort and Convenience
- 2.9 Emission Control
- 2.10 Electrical System
- 2.11 Traction Control and A.B.S.
- 2.12 Satellite navigation system

- 2.12.1 History and theory
- 2.12.2 Civil and military uses
- 2.12.3 Current and proposed satellite navigation systems
- 2.13.1 Airbag
- 2.13.2 History
- 2.13.3 Benefits
- 2.13.4 Costs
- 2.13.5 Early airbags: "replacing" the seat belt
- 2.13.6 Airbag Fatalities
- 2.13.7 Airbag design
- 2.13.8 Triggering conditions
- 2.13.9 Deployment mechanism
- 2.13.10 Advanced airbag design
- 2.13.11 Airbag landing systems
- 2.14.1 The Air Conditioning And Heating System*

Chapter 3 Engine development

- 3.1 Development of a standard engine
- 3.1.1 Developing an engine
- 3.2.1 What is a management system or electronic control unit
- 3.2.2 Setting up
- 3.2.3 Why is this needed