

Lecture #5:

Review of Previous Lectures:

作業一：國道中山高速公路之卡車因子(TF)
為何? (因路段、時間而不同)

參考文獻：“高速公路年報”

- * 小型車、大貨車、客聯車之比例與
方向分佈因素
- * 大貨車標準軸重當量
- * 聯結車標準軸重當量

Introduction (Shahin, Chapter 1)

Pavement Management Process (Fig.
1-3)

(Shahin's Textbook Organization)

- Pavement Network Definition
- Pavement Condition Measurement
(i.e., Distress Survey and Rating
Procedures, NDT, Roughness, Skid
Resistance)
- Pavement Condition Prediction
- Network Level Management
- Project Level Management
- M & R Selection Alternatives

(ad hoc, present condition, life cycle
approaches)

EMS vs. conventional MMS
("MMS might not include engineering
tools for condition prediction")
台灣區高速公路路面養護管理系統?

Automated Mapping / Facility
Management (AM/FM) System
Project vs. Network-Level
Management

Pavement Network Definition
(Shahin, Chapter 2)

Referencing Method (Hass, page 71)
Route-Milepost / Node-Link / Branch-
Section / GIS (==> Effective
Database)

Branch-Section Method used in
PAVER

Section: defined by
Pavement Structure, Traffic,
Construction History, Pavement Rank,
Drainage Facilities & Shoulders,
Condition, Others (e.g. Zone, Section
Category)

Pavement Condition Survey & Rating
Procedure (Shahin, Chapter 3)

See Lecture #3 (Fig 3-17)

Automated PCI Calculation
(PAVER)

Pavement Management Process
(Haas, Chapter 1-3)

- Introduction

Figure 1.3 Major Components of a PMS

- Application of Systems Concepts to
Pavement Management

- Basic Components of a PMS

Three Basic Organizational or User
Levels: Legislative, Administrative,
Technical (page 28-30)

PMS Does Not Make Decisions - The
People Who Use It Do!!!

Network & Project Levels of PMS

Demo of S-PLUS Program

- Data Manipulation

- Graphics

- Statistical & Mathematical Analysis

