# Module 2 – Introduction to traffic simulation

# CIVL6415 Week 4 Notes

## Offline vs Online

* Offline evaluation

System Design

Scenarios

Simulator

Measures of Effectiveness

* Online decisions

Traffic Management Centre

Information

Travel Demand

Surveillance

Control

Traffic Conditions

Supply

**Information Loop**

**Traffic Control Loop**

## Static traffic models

### **Four Steps modelling**

Step 1. Estimate trips produced and attracted in each zone

Step 2. Find - flows

Step 3. Consider alternative transport modes (mode split)

Step 4. Traffic assignment (Route choice for - car flows)

* Static traffic models with travel time functions
* Equilibrium

Roadway performance function:

Links

Discrete

Where

Final link travel time