

TRAFFIC ENGINEERING
LABORATORY

**Department of Transportation Engineering
and Management**

**University of Engineering and Technology,
Lahore**



Introduction:

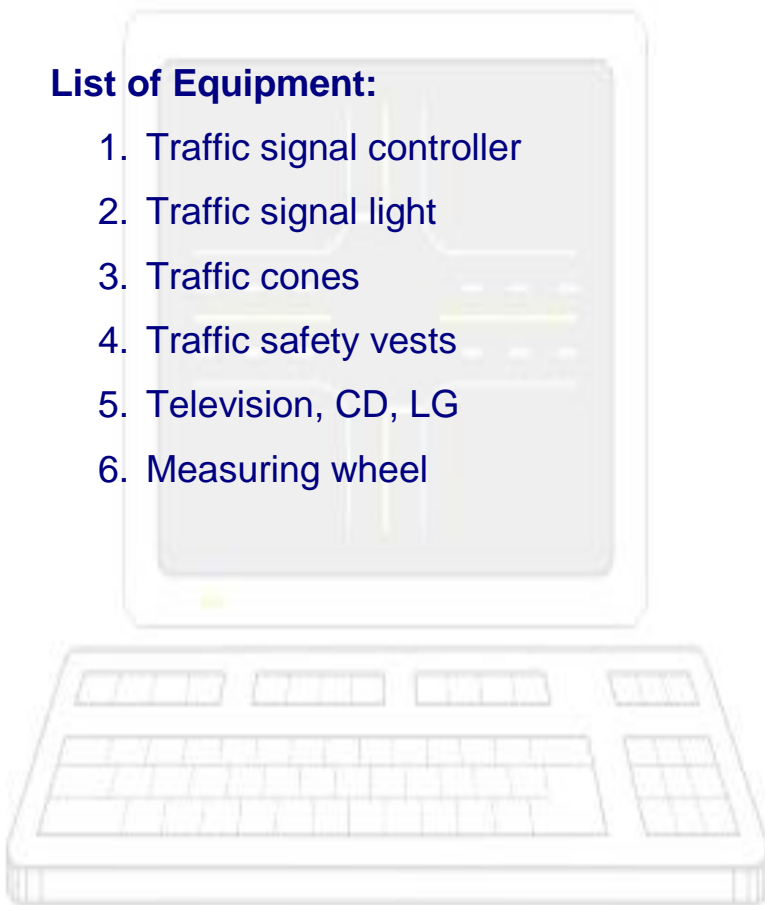
The traffic engineering lab is designed to supplement the average junior-level course in transportation engineering. Laboratory exercises are meant for most of the major topics addressed in undergraduate transportation engineering program. The lab includes a vast collection of equipments, to assist students in completing the laboratory exercises, and to increase their understanding of these important topics.

Laboratory staff:

Engr. Farhan Haider	Director/ Assistant professor
Ibtasam Bashir	Lab incharge
Muhammad Nazir	Lab. Assistant

List of Equipment:

1. Traffic signal controller
2. Traffic signal light
3. Traffic cones
4. Traffic safety vests
5. Television, CD, LG
6. Measuring wheel





List of experiments

1. Traffic Counting/Measuring Methods:

- a. Manual Classified Counts (MMC)
 - I. Tally Sheets
 - II. Mechanical Counting Boards/Meters
 - III. Electronic Counting Boards/Meters
- b. Automatic Counters
 - I. Portable Counters
 - II. Permanent Counters

2. Traffic Signal Timing Design:

- a. Traffic Signal Warrants
- b. Cone of Vision Study
- c. Cycle Length Determination
- d. Timing Adjustments
- e. Signal Coordination
- f. Capacity of Saturation Flow Rate
- g. Inter Green Time
- h. Pedestrian Green Time and Minimum Green Interval
- i. Peak Hour Volume, Design Flow Rate and Peak Hour Factor
- j. Computing Delays and Level of Service (LOS)

3. Accident Analysis:

- a. Formation of Standard Traffic Accident Report Form
- b. Collision Diagrams
- c. Police Traffic Accident Report

4. Intersection Study

- a. Intersection Volume Study
- b. Intersection Geometry Study



- c. Sight Distance Study at Intersection
- d. Signal Timing Diagram
- e. Vehicle Arrival Patterns at Intersection
- f. Saturation Flow Rate Measurement

5. Parking Design Study and Pedestrian Study

6. Delay Measurement at a Traffic Intersection

7. Training on Traffic Signal Controllers, Traffic Signal Lights and Count Down Meters.

8. Traffic Analysis Software

- a. Highway Capacity Software (HCS 2000)
- b. Synchro and Sim Traffic Simulation
- c. Vissum



Laboratory View

