



TRANSPORTATION ENGINEERING LAB

Courses Covered:

1. CET-222-L-Transportation and Highway Technology

**DEPARTMENT OF CIVIL ENGINEERING
TECHNOLOGY
PUNJAB TIANJIN UNIVERSITY OF TECHNOLOGY,
LAHORE**

Course Title: CET-222-L-Transportation and Highway Technology

List of Experiments:

1. To determine the Los Angeles abrasion value (% wear) of aggregate sample.
2. To determine the flakiness and elongation index of aggregate.
3. To determine the aggregate impact value of the given aggregate sample.
4. To determine the soundness of the aggregate using different chemicals.
5. To determine specific gravity, flash & fire point, and ductility of bitumen.
6. To determine penetration grade and softening point of bitumen.
7. To determine aggregate gradation used for job mix formula considering different standard specifications.
8. Open-ended Lab: To determine volumetric of Hot Mix Asphalt.
9. Perform traffic survey to analyze the spot speed on selected road using different methods.
10. To carry out intersection traffic count including turning movement on an intersection using manual and camera technique.
11. To calculate Peak hour factor, ADT, AADT of any selected road section.
12. To calculate intersection delay at any selected signalized intersection.
13. To carry out parking study in any parking lot.

List of Equipment's:

1. Aggregate Screen Shaker (Quantity = 02).
2. Electronic Balance (Quantity = 04).
3. Standard Sieve (Quantity = 06).
4. Sieve Shaker (Quantity = 02).
5. Electric Thermostatic Drying Oven (Quantity = 02).
6. Bitumen Penetrometer (Quantity = 04).
7. Ring and Ball Apparatus (Quantity = 02).
8. Asphalt Ductility Tester (Quantity = 02).
9. Electric thermostatic Water bath (Quantity = 02).
10. Specific Gravity Apparatus (Quantity = 02).
11. Theoretical Maximum Specific Gravity Apparatus (Quantity = 01).
12. Flakiness/Thickness Gauge and Length Gauge (Quantity = 05).
13. Los Angeles Abrasion Machine (Quantity = 01).
14. Cleveland Open Cup Flash and Fire Point Tester (Quantity = 01).
15. Aggregate Impact Value Apparatus (Quantity = 01).
16. Float Test Set (Quantity = 01).
17. Viscometer Bath (Quantity = 01).
18. Pavement Core Drilling Machine (Quantity = 01).



Bitumen Penetrometer



Ring and Ball Apparatus



Sieve Shaker



Electronic Balance



Drying Oven



Pavement Core Drilling Machine



Aggregate Impact Value Apparatus



Asphalt Ductility Tester



Los Angeles Abrasion Machine



Aggregate Screen Shaker



Flash and Fire Point Tester



Viscometer Bath



Electric thermostatic Water bath



Theoretical Maximum Specific Gravity



Specific Gravity Apparatus



Flakiness/Thickness Gauge and Length Gauge



Float Test Set