

EXPERIMENT # 1: To Determine Spot Speed of Traffic by Stopwatch method

Spot Speed:

Spot Speed Studies are used to determine the speed distribution of a traffic stream at a specific location. The data gathered in spot speed studies are used to determine vehicle speed percentiles which are useful in making speed related decisions.

Apparatus:

- Stopwatch

Applications:

1. Employ spot speed analysis to ascertain optimal speed limits for specific locations.
2. Utilize the analysis to define boundaries for no-overtaking zones effectively.
3. Apply spot speed data to determine precise locations for traffic control signs and markings.
4. Leverage the analysis to assess and ensure adequate sight distance, enhancing safety considerations.

Formula:

$$S = vt$$

Where,

- S = Distance Travelled
- v = Speed
- t = Time taken

Procedure:

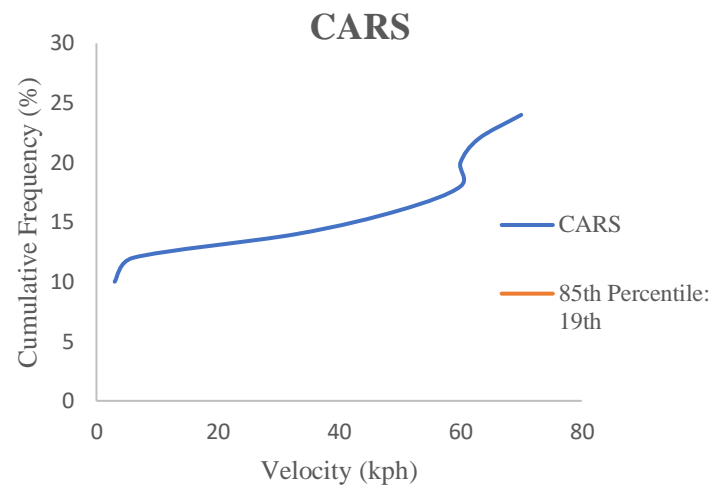
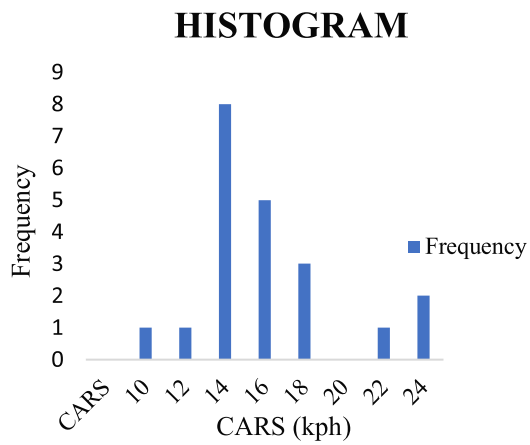
1. Obtain appropriate study length.
2. Select proper location and layout.
3. Record observations on stopwatch spot speed study data form.
4. Calculate vehicle speeds.
5. Generate frequency distribution table and determine speed percentiles.

JOB1 TITLE	To Determine Spot Speed of Traffic by Stopwatch method						
DATE	18/01/2024			LOCATION	SULTANPURA		
FIXED DISTANCE	60 feet (ft)			TIME	2:30 PM TO 3:00 PM		
FROM	A			TO	B		
	Vehicle						
Obs.	BIKES (kph)	CARS (kph)	QINGQI (kph)	AUTO RICKSHAW (kph)	BUSES (kph)	TRUCKS (kph)	CYCLES (kph)
1	9	10	9	9	10	11	9
2	9	11	9	10	11	13	9
3	10	11	9	10	11	14	10
4	10	12	10	12	12	14	10
5	10	13	10	12	13	17	10
6	11	13	10	12	14		
7	11	13	10	12	16		
8	11	14	10	12	17		
9	11	14	11	13	18		
10	12	14	11	13	22		
11	13	14	12	13			
12	13	14	13	13			
13	13	14	13	13			
14	13	14	13	13			
15	13	14	14	14			
16	13	15	14	14			
17	13	15	15	14			
18	14	15	15	14			
19	14	16	15	14			
20	14	16	15	14			
21	14	16	17	14			
22	15	16	17	14			
23	15	16	17	15			
24	15	17	17	15			
25	15	17	19	15			
26	15	17					
27	16	17					

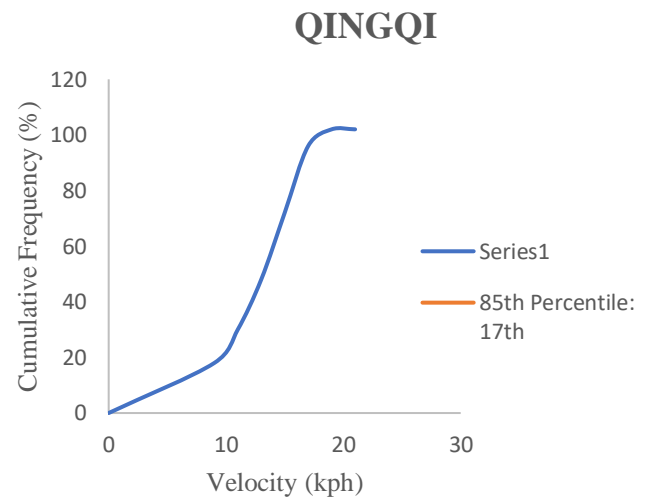
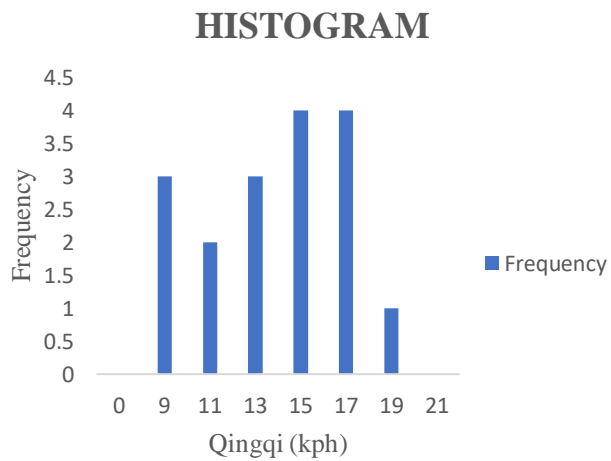
28	16	17					
29	16	17					
30	16	17					
31	17	17					
32	17	17					
33	17	17					
34	17	17					
35	17	17					
36	17	17					
37	18	17					
38	18	17					
39	18	17					
40	19	18					
41	19	18					
42	19	18					
43	19	19					
44	21	19					
45	21	19					
46	21	21					
47	22	21					
48	24	22					
49	24	24					
50	25	24					

Graphs:

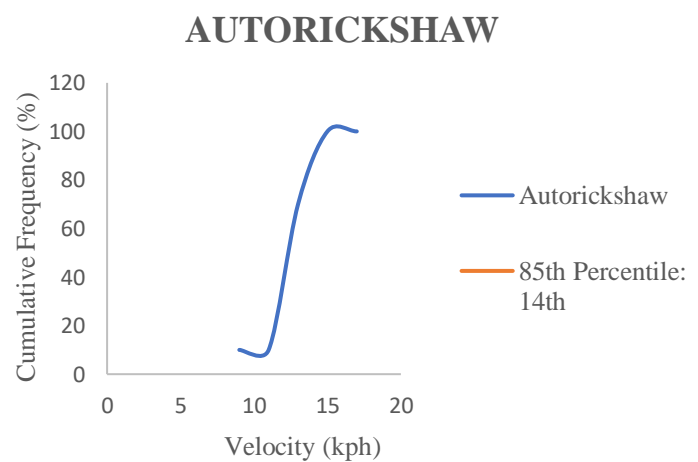
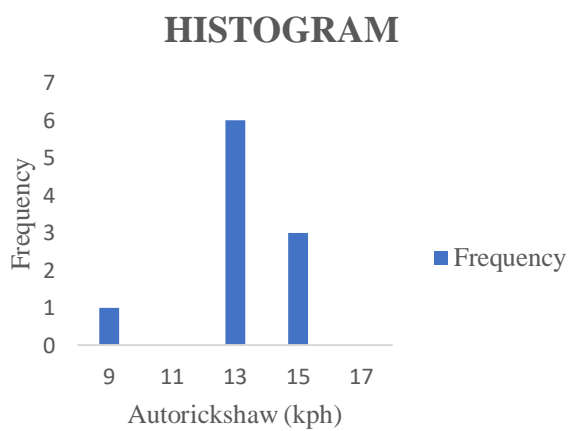
1. CARS:



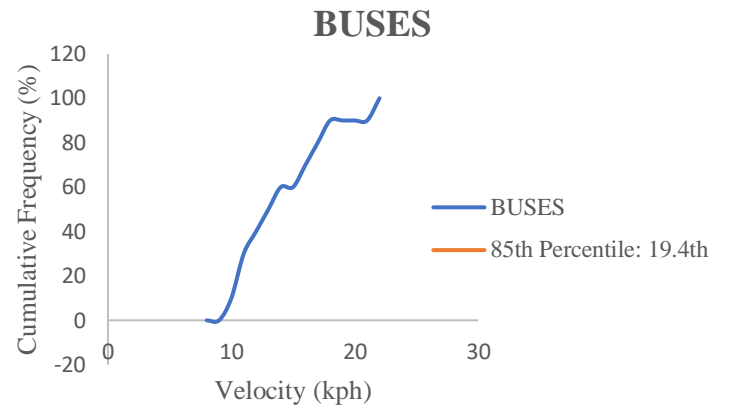
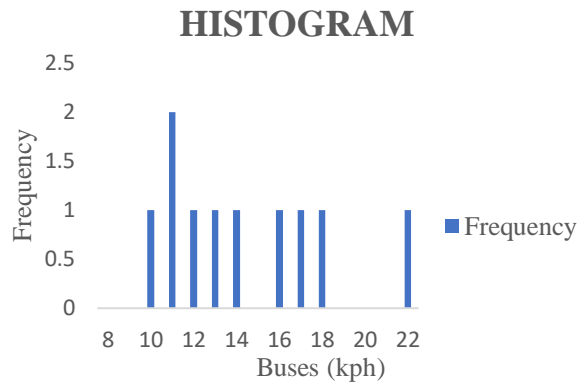
2. QINGQI:



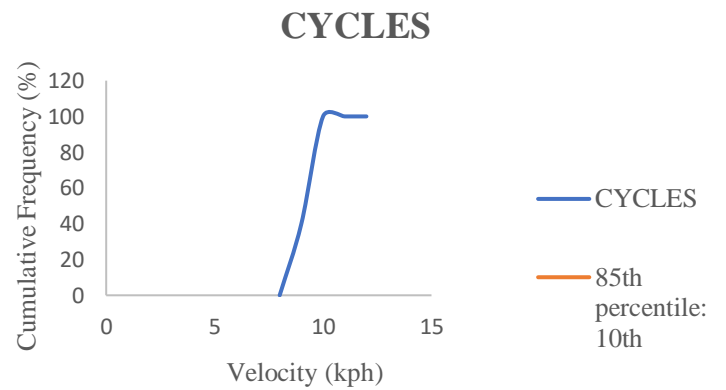
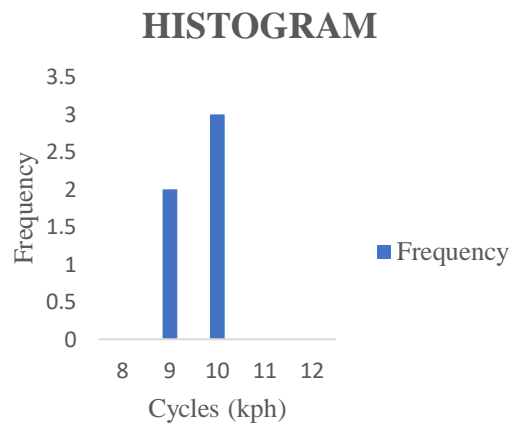
3. AUTORICKSHAW:



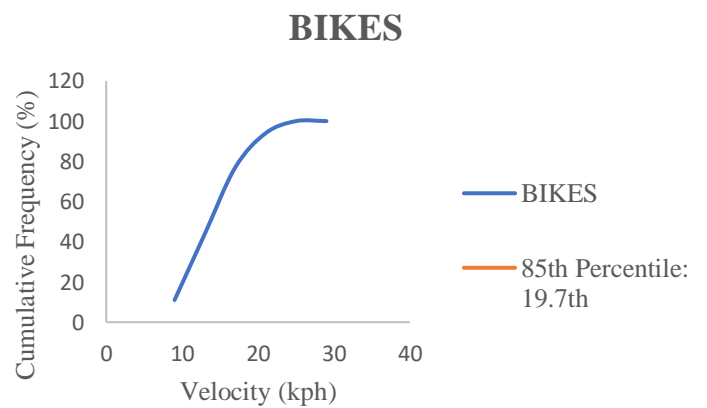
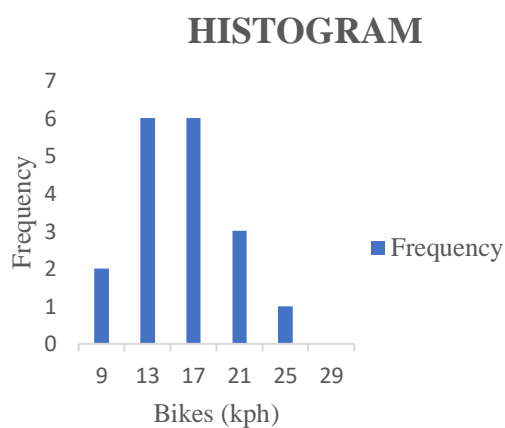
4. BUSES



5. CYCLES:



6. BIKES



7.TRUCKS:

