PHASE 2 PROJECT:
PUBLIC TRANSPORT OPTIMIZATION

ULTRASONIC SENSORS.

DEFINITIONS FOR ULTRASONIC SENSOR:

An ultrasonic sensor is an instrument that measure the distance to an object using ultrasonic sound waves. An ultrasonic sensor uses a transduces to send and receive ultrasonic pulses that relay back information about an object's proximity.

STEPS FOR PROGRAM:

STEP 1: START THE PROGRAM.

STEP 2: COLLECT DATA FROM ULTRASONIC SENSORS.

STEP 3: PROCESS THE DATA TO IDENTIFY OBJECTS AND THEIR DISTANCES.

STEP 4: CLASSIFY THE OBJECTS AS VEHICLES, PEDESTRIANS, OR OTHER OBSTACLES.

STEP 5: IDENTIFY THE TRAFFIC FLOW PATTERNS.

STEP 6: IDENTIFY AREAS WHERE TRAFFIC CONGESTION IS OCCURING.

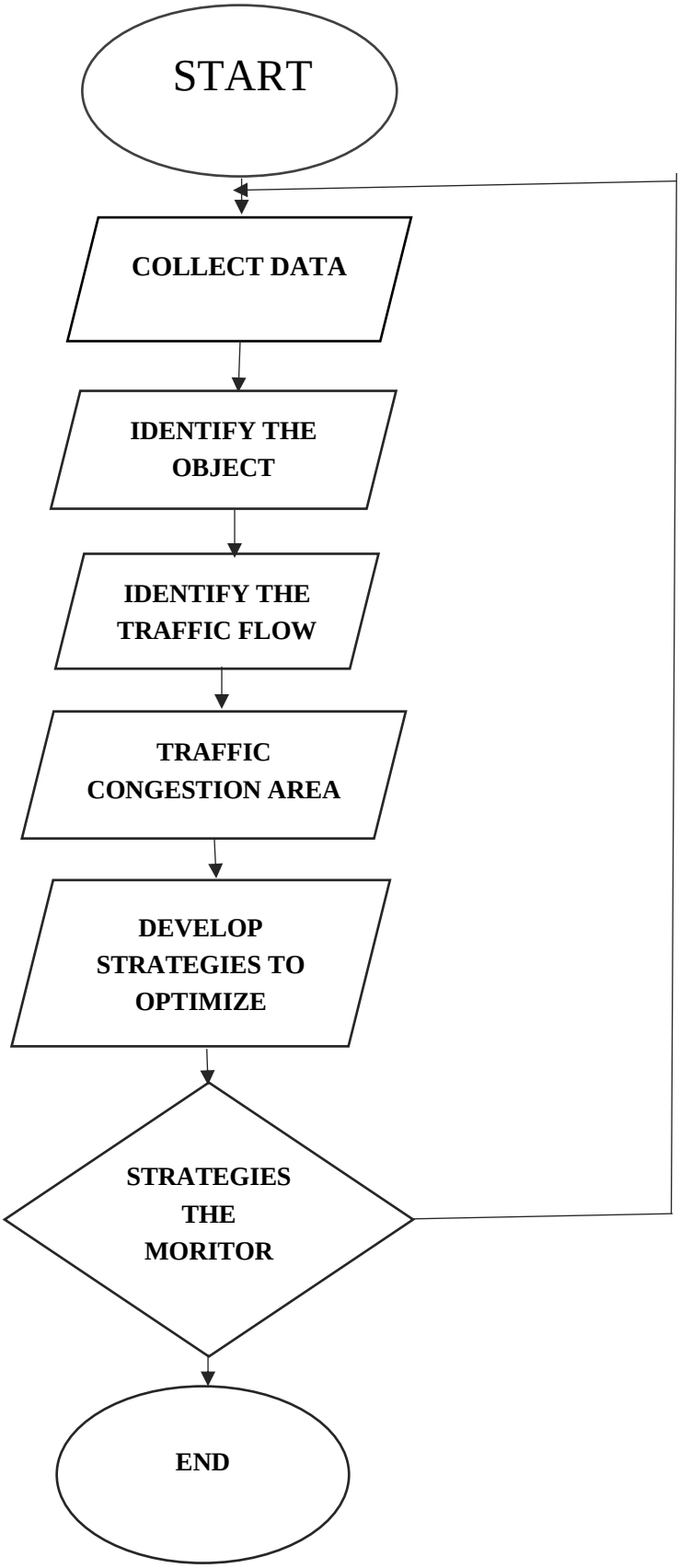
STEP 7: DEVELOP STRATEGIES TO OPTIMIZE TRAFFIC FLOW.

STEP 8: IMPLEMENT THE STRATEGIES AND MONITOR THE RESULTS.

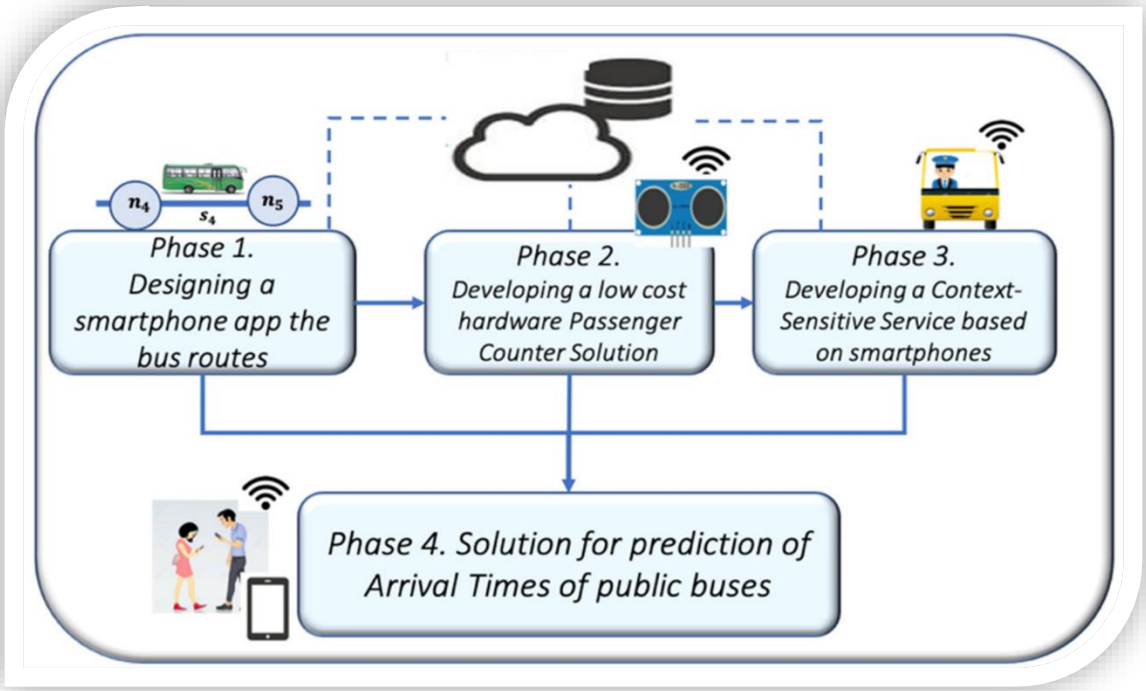
STEP 9: REPEAT STEP 2-8 UNTIL THE DESIRED RESULTS ARE ACHIEVED.

STEP 10: STOP THE PROGRAM.

DRAW THE FLOWCHART:



BLOCK DIAGRAM:



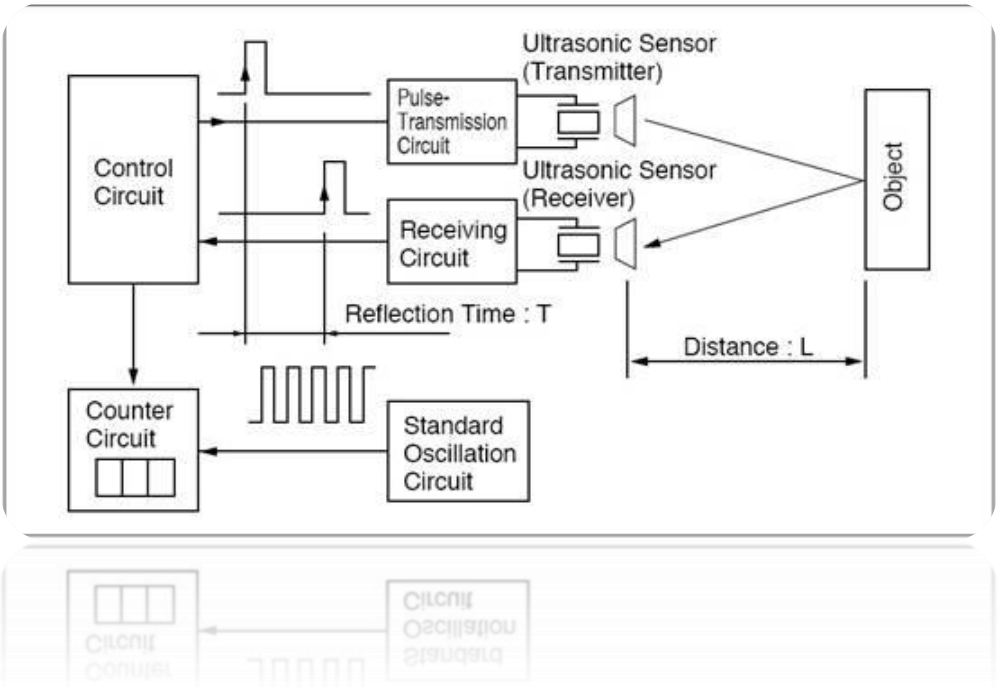
PHASE 1: DESIGNING A SMARTPHONE APP THE BUS ROUTES

PHASE 2: DEVELOPING A LOWCOST HARDWARE PASSENGER COUNTER SOLUTION (USING ULTRA SONIC SENSOR).

PHASE 3: DEVELOPING A CONTEXT-SENSITIVE SERVICE BASED ON SMARTPHONE.

PHASE 4: SOLUTION FOR PREDICATION OF ARRIVAL TIMES OF PUBLIC BUSES.

CIRCUIT DIAGRAM:



APPLICATION:

- ✓ ULTRASONIC FLAW DETECTION.
- ✓ ULTRASONIC SOLDERING AND WELDING.
- ✓ ULTRASONIC AS MEANS OF COMMUNICATION.