



Mahavir Education Trust's
SHAH & ANCHOR KUTCHHI
ENGINEERING COLLEGE
Chembur, Mumbai - 400 088
UG Program in Information Technology

Experiment No: 2				
Date of Performance:	22/08/24			
Date of Submission:	29/08/24			
Program Formation / Execution/ Correction (06)	Timely Submissio n (01)	Viva (03)	Experiment Marks (10)	Teacher Signature with date

EXPERIMENT 2

User stories and Acceptance Criteria. (ADAS SYSTEM)

User Role	User Story	Acceptance Criteria
Driver	Collision Avoidance	<p>System detects obstacles within a 100-meter range using sensors.</p> <ul style="list-style-type: none">- Provides an audible alert when an obstacle is detected within 50 meters.- Automatically applies brakes if the driver does not respond within 2 seconds.- Deactivates brakes if the obstacle is cleared or driver overrides by steering or accelerating.
Driver	Lane Keeping Assistance	<p>Detects lane markings using camera sensors.</p> <ul style="list-style-type: none">- Triggers an alert if the vehicle crosses lane markings without the turn signal.- Alert includes both visual (dashboard) and auditory (beeping) signals.- Automatically steers vehicle back into lane if no driver action within 2 seconds.

Driver	Adaptive Cruise Control	<p>Detects the speed and distance of the vehicle ahead using radar and camera sensors.</p> <ul style="list-style-type: none"> - Maintains a following distance set by the driver (short, medium, long). - Reduces speed if the distance to the vehicle ahead decreases below the set following distance. - Accelerates back to the set speed once the road ahead is clear. - Disengages and notifies driver when manual intervention is required.
Driver	Blind Spot Detection	<p>Detects vehicles in blind spots using side sensors.</p> <ul style="list-style-type: none"> - Activates a visual indicator (side mirror light) when a vehicle is in the blind spot. - Triggers an audible warning if the turn signal is activated while a vehicle is in the blind spot. - Deactivates warning when the vehicle is no longer in the blind spot or if the lane change is canceled.

Driver	Traffic Sign Recognition	<p>Detects and recognizes common traffic signs (e.g., speed limits, stop signs) using camera sensors.</p> <ul style="list-style-type: none">- Displays recognized signs on the dashboard in real-time.- Provides an audible alert if the vehicle exceeds the speed limit detected by a traffic sign.- Updates displayed signs as new signs are detected and clears display when no signs are relevant.
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