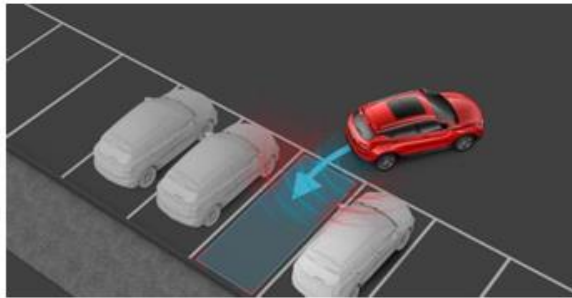# Figures :

Phase 1 : Looking for Available spaces for Parking. Then goes to Phase 2

Phase 2 : Start the auto parking process
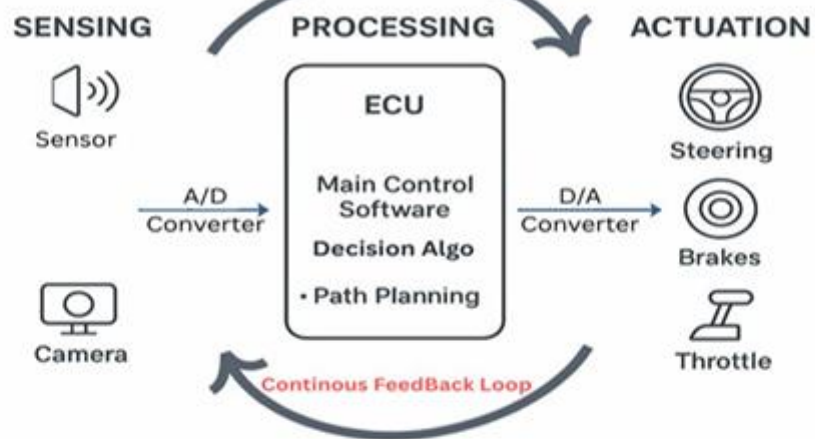

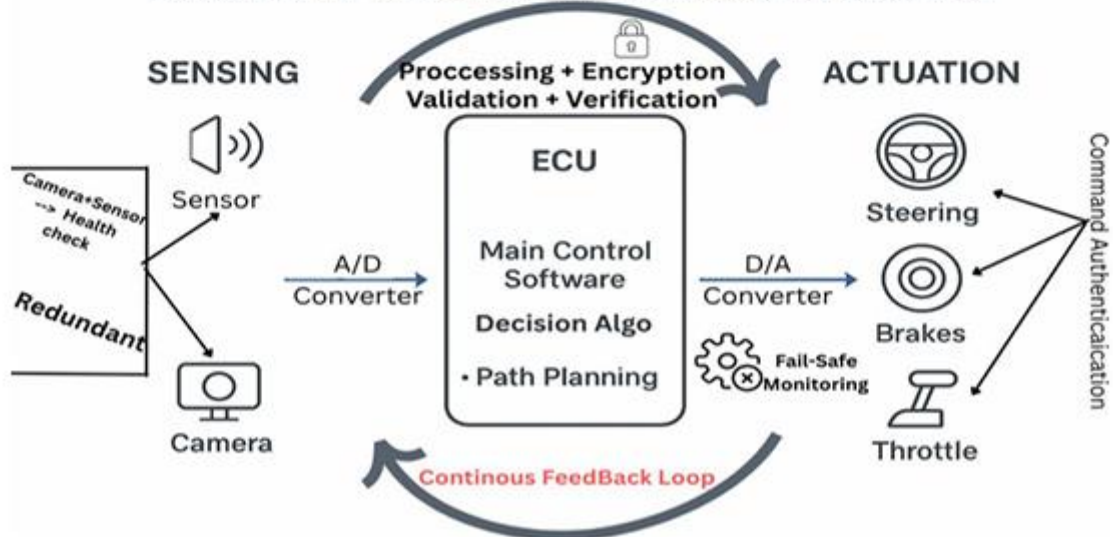**Phase 3 :** park the car safely and turn off.

DATA FLOW IN SMART AUTO PARKING SYSTEM

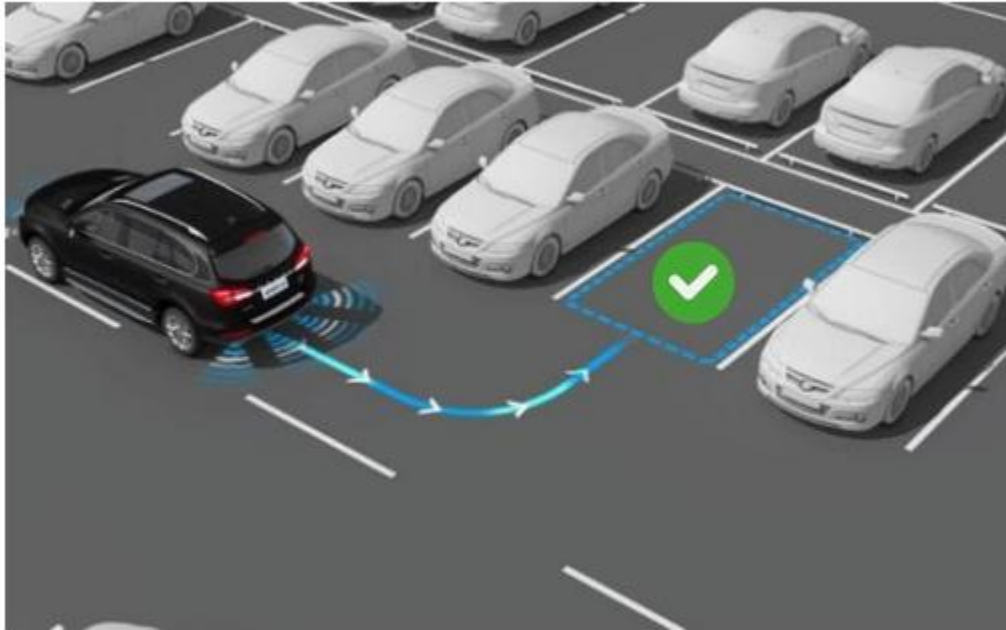**SENSING** **PROCESSING** **ACTUATION**

Sensor

Camera

A/D Converter

ECU

Main Control Software

Decision Algo

• Path Planning

D/A Converter

Steering

Brakes

Throttle

Continous FeedBack Loop

DATA FLOW IN SMART AUTO PARKING SYSTEM

SENSING **Proccessing + Encryption Validation + Verification** **ACTUATION**

Camera+Sensor --> Health check

Redundant

Sensor

Camera

A/D Converter

ECU

Main Control Software

Decision Algo

• Path Planning

Fail-Safe Monitoring

D/A Converter

Steering

Brakes

Throttle

Command Authenticaication

Continous FeedBack Loop

Q1

Q2

Q3

Q4