ADAPTIVE FRONT LIGHTING SYSTEM

Overview
AFLS ECU to control the swiveling, leveling, and beam pattern of vehicle headlamps

Automotive Supplier
Consists of lamps, actuators & sensors for static bending and dynamic bending

- Steering wheel sensor angle and vehicle level sensor signals are used as inputs

Functionalities: Swiveling & Leveling (Static & Dynamic), Shielding, Fail-safe & Diagnostics

Scope - Full System Implementation

Requirements Capture

Electronic Hardware Design
- Schematic preparation/ Layout using OrCAD tools
- Hardware Simulation using PSpICE

Software Design
- Model based Algorithm Design and Implementation using Matlab/ Simulink/ Stateflow
- Structured design/ Implementation of Drivers.

System Testing
- In-house Functionality Testing
- Integration in Vehicle and on-road testing
- Environmental Tests