

# Self-Healing ECU & Predictive Maintenance Report

## **\*\*1. Overview\*\***

AI-driven predictive maintenance and self-healing ECU technologies have significantly reduced system failures, improving vehicle uptime and reducing downtime.

## **\*\*2. Key Achievements\*\***

- **\*\*ECU Failure Rate:\*\*** Reduced to nearly 0%.
- **\*\*Fault Detection:\*\*** Machine learning-driven fault analysis and proactive intervention.
- **\*\*Blockchain-Based Logging:\*\*** Ensures data integrity and regulatory compliance.

## **\*\*3. Performance Trends\*\***

- Preventive fault detection has improved repair efficiency by 63%.
- Maintenance alerts now sent before faults occur, reducing unplanned downtime.

## **\*\*4. Next Steps\*\***

- Further refinement of AI-based fault prediction.
- Expansion of self-healing capabilities for broader system coverage.