XXX System Detailed Software Specification

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Revision Record

Revision	Date	Author	Content
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Contents

Chapter 1

Introduction

1.1 Background

1.2 Purpose and Scope

1.3 Glossary

1.4 References

Chapter 2

Design Introduction

2.1 Function Introduction

2.2 Operating Environment and Context

2.3 Condition and Constraints

2.4 Design Principal and Policy

2.5 Key Algorithms

Chapter 3

Internal Structure of Components

3.1 Structural Diagram

3.2 Dynamic Design

Chapter 4

Interface Design

4.1 Internal Interface

4.2 External Interface

Chapter 5

Detailed Design Specification

5.1 Component XXX

5.1.1 Description

5.1.2 Interface

5.1.3 Flowchart

5.2 Component YYY

5.2.1 Description

5.2.2 Interface

5.2.3 Flowchart

Chapter 6

Application Parameters and Calibration

Chapter 7

Non-Functional Requirements

7.1 Performance Requirements

7.2 Resources

7.3 Safety

7.4 Security

Bibliography

[1] J. M. Miller, "Hybrid electric vehicle propulsion system architectures of the e-cvt type," *IEEE Transactions on Power Electronics*, vol. 21, no. 3, pp. 756–767, May 2006.

[2] M. Kuang, "Power split system HEV 101," Ford Internal Presentation, 2008.

[3] W. Liang, X. Wang, T. Chrostowski, R. McGee, J. Doering, and M. Kuang, "Modeling and control of power split hybrid vehicle transaxle system using enhanced lever diagram," Ford Technical Report, SRR-2012-0155, 2012.

[4] W. Liang, C. Okubo, T. Chrostowski, and M. Kuang, "Engine speed control of a power split HEV," Ford Technical Report, SRR-2012-0156, 2012.

[5] J. Meyer, et al., "Advanced Power Split Transaxle Controls R2 Review," APSTC project TDR presentation.

[6] W. Liang, et al., "Advanced Power Split Transaxle Controls R3 Review," APSTC project TDR presentation.

[7] J. V. Alcantar, R. Johri, and M. Kuang, "Minimizing Vibration of the Power Split Drivetrain During Engine Starts and Stops via Cranking Torque Estimation and Compensation," Ford Technical Report, SRR-2015àÿćàÿĄV0151.