TABLE OF CONTENTS

CHAPTER I INTRODUCTION 1
I.1. Background 1
I.2. Alternative Solution 4
I.3. Problem Formulation 7
I.4. Objective of Research 7
I.5. Benefit of Research 7
I.6. Writing System 7
CHAPTER II LITERATURE STUDY 9
II.1. Theory/General Concept/Model/ Standard Framework 9
II.I.1. Production Planning 9
II.I.2. Capacity 9
II.I.3. Production System 10
II.I.4. Scheduling 10
II.I.5. Objective of Scheduling 10
II.I.6. Output of Scheduling 11
II.I.7. Operation Sequencing in Scheduling 11
II.I.8. Scheduling Models 12
II.I.9. Scheduling Terms 12
II.I.10. Gantt Chart 13
II.I.11. Parallel Machine Scheduling 13
II.I.12. Scheduling Parameters 14
II.I.13. Scheduling Criteria 15
II.2. Proposed Method 16
II.2.1. Earliest Due Date (EDD) 16
II.2.2. Job Splitting Property 16
II.3. Reason For Choosing Method 19
CHAPTER III PROBLEM SOLVING METHODOLOGY 32
III.1. Design Systematic 32
III.2. Research Scope and Research Assumption 34
CHAPTER IV INTEGRATED SYSTEM DESIGN 35
IV.1 Data Collection 35

IV.1.1 Machine Information 35
IV.1.2 Cycle Time & Setup Time 35
IV.1.3 List of Jobs 36
IV.2 Design Specification and Design Standard 36
IV.3 Design Process 36
IV.3.1 Data Processing 37
IV.3.1.1 Processing Time 37
IV.3.1.2 Gantt Chart of Existing Condition 37
IV.3.1.3 Tardiness in Existing Condition 33
IV.3.2 Design Steps 34
IV.3.2.1 Earliest Due Date 37
IV.3.2.2 Proposed Method 38
IV.3.3 Design Result 41
IV.4.1 EDD Result 41
IV.4.2 Proposed Method Result 43
IV.4 Design Result Verification 45
IV.5.1. Earliest Due Date (EDD) 46
IV.5.2. Proposed Method 46
CHAPTER V RESULT ANALYSIS 47
V.1. Validation of Design Result 47
V.2. Evaluation of Design Result 48
V.3. Analysis and Implementation of Design Result 50
CHAPTER VI CONCLUSION AND SUGGESTION 54
VI.1. Conclusion 54
VI.2. Suggestion 54