

**ANALYSIS OF STUDENT SATISFACTION LEVEL FOR OFFLINE  
LEARNING AT DEPARTMENT OF MECHANICAL ENGINEERING  
UNIVERSITAS MUHAMMADIYAH KALIMANTAN TIMUR USING  
ALGORITHM C4.5**

**THESIS**

Submitted For Fulfill Part Condition Reach Title Bachelor

**ARRANGED BY:**

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**DEPARTMENT OF INFORMATICS  
FACULTY OF SCIENCE AND TECHNOLOGY  
UNIVERSITAS MUHAMMADIYAH KALIMANTAN TIMUR  
SAMARINDA  
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## ENDORSEMENT

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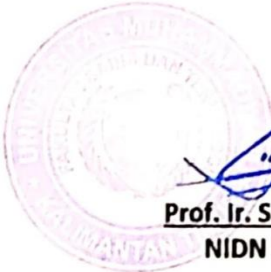

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Samarinda, 15 July 2022

Regards



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5. Department Mechanical Engineering students who participated and helped me in filling out the questionnaire.
6. Thank you to all parties who have been involved in the preparation of this report that I cannot mention one by one.

As a researcher, I hope that this seminar proposal can be useful for readers and can be used as a reference for writing the next thesis.

Samarinda, 15 July 2022

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## ABSTRACT

Higher Education Institutions are one of the educational institutions that cannot be separated from the services provided to students, both in terms of facilities and quality of service. Students will perceive quality of service from educational institution, students will feel dissatisfied if the quality of service does not match student expectations. Dissatisfied students will show an uncomfortable learning behavior, such as not having the learning enthusiasm. Determine the level of student satisfaction using the decision tree C4.5 algorithm. According to C. A. Oktavia, Rahmadwati, and Purnomo, C4.5 algorithm has the advantage that can produce decision tree that are easy to interpret and have an acceptable level of accuracy. The Empathy aspect is the most influential aspect of Department of mechanical Engineering students satisfaction at Universitas Muhammadiyah Kalimantan Timur. Accuracy of the C4.5 model used in this research is 83,33%.

**Keywords** : Quality of service, C4.5 Algorithm, Decision tree

## **ABSTRAK**

Perguruan Tinggi merupakan salah satu lembaga pendidikan yang tidak lepas dari pelayanan yang diberikan kepada mahasiswa, baik dari segi fasilitas maupun kualitas pelayanan. Mahasiswa akan mempersepsikan kualitas pelayanan dari lembaga pendidikan, mahasiswa akan merasa tidak puas jika kualitas pelayanan tidak sesuai dengan harapan mahasiswa. Siswa yang tidak puas akan menunjukkan perilaku belajar yang tidak nyaman, seperti tidak adanya semangat belajar. Menentukan tingkat kepuasan mahasiswa menggunakan algoritma decision tree C4.5. Menurut C. A. Oktavia, Rahmadwati, dan Purnomo, algoritma C4.5 memiliki kelebihan yaitu dapat menghasilkan pohon keputusan yang mudah diinterpretasikan dan memiliki tingkat akurasi yang dapat diterima. Aspek Empathy merupakan aspek yang paling berpengaruh terhadap kepuasan mahasiswa Jurusan Teknik Mesin Universitas Muhammadiyah Kalimantan Timur. Akurasi model C4.5 yang digunakan dalam penelitian ini adalah 83,33%.

**Kata Kunci** : Kualitas Pelayanan, Algoritma C4.5, Decision tree

## TABLE OF CONTENTS

		Page
TITLE PAGE .....		i
ENDORSEMENT .....		ii
STATEMENT OF THESIS AUTHENTICITY .....		iii
ACKNOWLEDGEMENT .....		iv
ABSTRACT .....		v
ABSTRAK .....		vi
TABEL OF CONTENTS.....		vii
LIST OF FIGURE .....		ix
LIST OF TABLES .....		x
ATTACHMANS .....		xi
CHAPTER 1	INTRODUCTION	
1.1	Background of Study .....	1
1.2	Formulation of The Problem .....	4
1.3	Research Objective.....	4
1.4	Problem Limitation.....	4
CHAPTER 2	LITERATURE REVIEW	
2.1	Student Satisfaction .....	5
2.1.1	Factors That Affecting Student Satisfaction .....	6
2.1.2	Dimensions of Student’s Satisfaction.....	7
2.2	Validity Test and Reliability Test .....	7
2.3	Data Mining .....	8
2.3.1	Characteristics of Data Mining .....	9
2.3.2	Data Mining Tasks and Functions.....	9
2.4	Classification.....	10
2.5	Decision tree.....	10
2.4	C4.5 Algorithm.....	11
CHAPTER 3	RESEARCH METHOD	
3.1	Stages of Research.....	13
3.2	Data Collection .....	13
3.3	Validity and Reliability Test .....	15
3.4	Implementing the C4.5 Algorithm.....	16
3.5	Performance Evaluation.....	17



CHAPTER	4	RESULT AND DISCUSSION	
	4.1	Data Collection .....	18
	4.2	Validity and Reliability Test .....	19
		4.2.1 Validity Test .....	19
		4.2.1 Reliability Test .....	20
	4.3	Implementing the C4.5 Algorithm.....	23
	4.4	Performance Evaluation .....	26
CHAPTER	5	CONCLUSIONS AND FUTURE WORKS	
	3.1	Conclusions.....	27
	3.2	Future Works .....	27
BIBLIOGRAPHY		.....	28

## LIST OF FIGURE

	Page
Figure 3.1 Stages of Research .....	14
Figure 4.1 Decision Tree.....	26

## LIST OF TABLES

	Page
Table 2.1 Previous Research Results .....	5
Table 2.2 Previous Research Results (Continue).....	6
Table 3.1 Question .....	15
Table 3.2 Question(Continue).....	16
Table 3.3 Guilford Reliability Coefficient Category.....	17
Table 4.1 Result Respondents.....	19
Table 4.2 Validity Test .....	20
Table 4.3 r Distribution .....	21
Table 4.4 Reliability Test .....	15
Table 4.5 Reliability Coefficient Category.....	15
Table 4.6 Implementing result algorithm C4.5 .....	18
Table 4.7 Implementing result algorithm C4.5 (Continue) .....	18

## **ATTACHMANS**

Attachman 1 : Design model in Rapid Miner

Attachman 2 : Distribution table formula R

Attachman 3 : Questionnaire data from respondents

Attachman 4 : Table reliability test