





PROJECT REPORT

Histograms Analysis for Sepia Colo

Samuel Gunawa

08.02.005

201

	<b>PERPUSTAKAAN</b>
NO. INV :	22815 / IK / 01
TGL :	16 / 01 / 2014
PARAF :	

FACULTY OF COMPUTER SCIENCE  
SOEGIJAPRANATA CATHOLIC UNIVERSITY

Jl. Pawiyatan Luhur IV/1, Bendan Duwur, SEMARANG 50234

Telp. 024-8441555 (hunting) Web: <http://www.unika.ac.id>

# APPROVAL AND RATIFICATION PAGE PROJECT REPORT

## Histograms Analysis for Sepia Color

This project report has been approved and ratified by the Dean of faculty of Computer Science and Supervisor on September 16th 2013

With Approval,

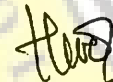
Examiners,



R. Setiawan Aji Nugroho, ST., McompIT

NPP : 058.1.2004.264

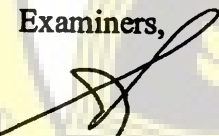
Supervisor,



Hironimus Leong, S.Kom., M.Kom

NPP : 058.1.2007.273

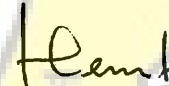
Examiners,



Suyanto E.A. Ir, M.Sc

NPP : 058.1.1992.116

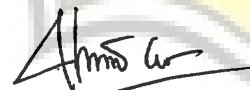
Examiners,



Rosita Herawati, ST., MIT

NPP : 058.1.2004.263

Examiners,



Shinta Estri Wahyuningrum, S.Si

NPP : 058.1.2007.272

Dean of Faculty of Computer Science,



Hironimus Leong, S.Kom., M.Kom

NPP : 058.1.2007.273

## STATEMENT OF ORIGINALITY

Here by signed,

Name : Samuel Gunawan

ID : 08.02.0051

Title Of Thesis : Histograms Analysis for Sepia Color

Certify that this project was made by myself and not copy or plagiarizes from other people, except that in writing expressed to the other article. If it is proven that this project was plagiarizes on copy the other, I am ready to accept a sanction.

Semarang, September 16th 2013



Samuel Gunawan

08.02.0051

## ABSTRACT

The purpose of this histogram analysis to provide information on how the values contained within an image. While the color sepia in manual aims to provide distance information to peruse if in a sepia color manually.



## FOREWORD

Praise be to God for all these blessings, the author was finally able to complete the final assignment is entitled "Histograms Analysis for Sepia Color". Therefore the author on this occasion to thank you profusely for:

1. The Lord Jesus who gives breath of life and Grace, my father Tan Liong An, alm. My mother Swie Nio, my sister Lidia Kristanti and my partner Martha Mega D.S above all prayer and assistance.
2. The companions of the Church leader's Tegal, Mahanaim church leaders Mawar Sharon satellite Semarang, Eklesia Church Tegal peer to peer, Anugerah kost's friends and friends IKOM who gave morale and motivation for the writer to complete the project.
3. All lectures in Computer Science Faculty Soegijapranata Catholic University
4. My Supervisor Mr. Hironimus Leong, S.Kom., M.Kom

The author is aware that there are still many flaws in this project. Therefore all criticism and suggestions that will build the author received well. Hopefully the project "Histograms Analysis for Sepia Color" is beneficial for all of us.

Semarang, September 16th 2013



Samuel Gunawan

08.02.0051

# TABLE OF CONTENT

COVER.....	i
APPROVAL AND RATIFICATION PAGE.....	ii
STATEMENT OF ORIGINALITY.....	iii
ABSTRACT.....	iv
FOREWORD.....	v
TABLE OF CONTENT.....	vi
TABLE OF FIGURE.....	viii
TABLE OF TABLE.....	x
CHAPTER I: INTRODUCTION.....	1
1.1 Background.....	1
1.2 Scope.....	2
1.3 Objective.....	2
CHAPTER II: LITERATURE STUDY.....	3
2.1 Image Processing.....	3
2.2 Histograms.....	4
2.3 Sepia Color.....	5
CHAPTER III: PLANNING.....	8
3.1 Research Methodology.....	8
3.1.1 Literature Study.....	8
3.1.2 Laboratory Experimental.....	8
3.2 Time Table.....	8
CHAPTER IV: ANALYSIS AND DESIGN.....	9
4.1 Analysis.....	9
4.2 Design.....	9
CHAPTER V: IMPLEMENTATION AND TESTING.....	13
5.1 Implementation.....	13
5.2 Testing.....	14

CHAPTER VI: CONCLUSION AND FURTHER RESEARCH.....	37
6.1 Conclusion.....	37
6.2 Further Research.....	37
REFERENCES.....	38

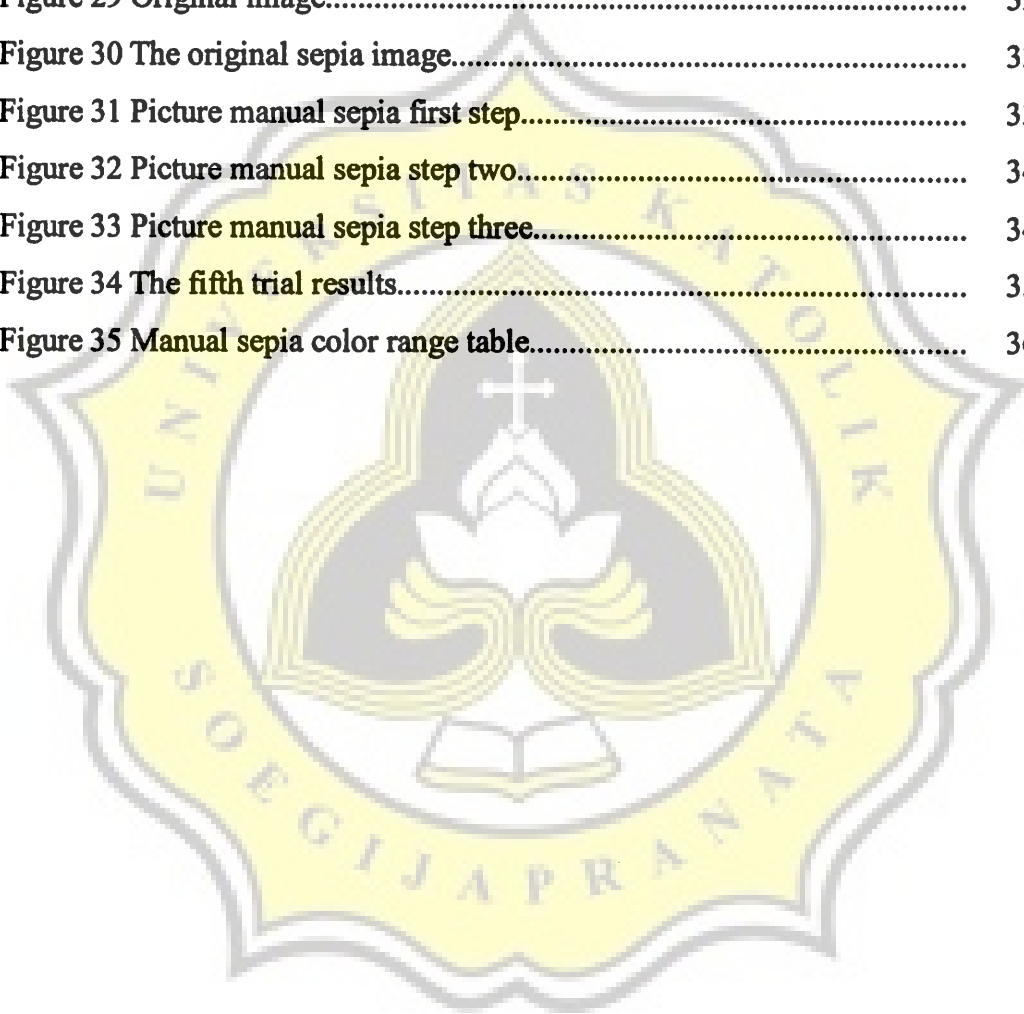


## TABLE OF FIGURE

Figure 1 Time Table.....	8
Figure 2 Histograms.....	10
Figure 3 Histogram statistics.....	11
Figure 4 Histogram sepia.....	12
Figure 5 Original image.....	14
Figure 6 The original sepia picture.....	15
Figure 7 Picture manual sepia first step.....	16
Figure 8 Picture manual sepia step two.....	16
Figure 9 Picture manual sepia step three.....	17
Figure 10 Results of the first experiment.....	18
Figure 11 Orignal images.....	19
Figure 12 The original sepia image.....	20
Figure 13 Picture manual sepia first step.....	21
Figure 14 Gambar manual sepia langkah kedua.....	21
Figure 15 Picture manual sepia step three.....	22
Figure 16 Results of the second experiment.....	23
Figure 17 Original images.....	24
Figure 18 The original sepia image.....	25
Figure 19 Picture manual sepia first step.....	26
Figure 20 Picture manual sepia step two.....	26
Figure 21 Picture manual sepia step three.....	27
Figure 22 The third experiment results.....	28
Figure 23 Original image.....	29
Figure 24 The original sepia image.....	29
Figure 25 Picture manual sepia first step.....	30



<b>Figure 26 Picture manual sepia step two.....</b>	<b>30</b>
<b>Figure 27 Picture manual sepia step three.....</b>	<b>31</b>
<b>Figure 28 The fourth experiment results.....</b>	<b>32</b>
<b>Figure 29 Original image.....</b>	<b>32</b>
<b>Figure 30 The original sepia image.....</b>	<b>33</b>
<b>Figure 31 Picture manual sepia first step.....</b>	<b>33</b>
<b>Figure 32 Picture manual sepia step two.....</b>	<b>34</b>
<b>Figure 33 Picture manual sepia step three.....</b>	<b>34</b>
<b>Figure 34 The fifth trial results.....</b>	<b>35</b>
<b>Figure 35 Manual sepia color range table.....</b>	<b>36</b>



## TABLE OF TABLE

Table 1 Time Table.....	8
Table 35 Manual sepia color range table.....	36

