



# BUKU PANDUAN TUGAS AKHIR



PROGRAM STUDI SARJANA  
Kurikulum 2018-2023

DEPARTEMEN STATISTIKA  
FAKULTAS MATEMATIKA, KOMPUTASI, DAN SAINS DATA  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

2019





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**PROGRAM STUDI SARJANA**  
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## **FOREWORD**

Praise the presence of God Almighty and for His mercy, so that this Final Project Guidebook can be compiled and presented as a handbook for every student and the Academic Community of the Statistics Department of FSAD-ITS in Final Project Report writing.

The Final Assignment Guidebook is a source of information in organizing the process of writing the Final Project Report. The hope of the existence of this Final Project Guidebook is the compilation of a uniform Final Project Report in accordance with the correct writing rules in each section for every student of the Statistics Department of FSAD-ITS.

On this occasion, We would like to thank the Drafting Team and all those who have assisted in the completion of the Final Assignment Guidebook. Hopefully this book can be a guide and guide for all parties involved in the preparation of the Final Project Report within the Department of Statistics FSAD-ITS.

Surabaya, July 2019

Compilation Team  
FSAD-ITS Statistics Department

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## CHAPTER I

### FINAL PROJECT: DEFINITION AND OBJECTIVES

#### 1.1. Definition

Each student who will complete his studies in undergraduate and diploma programs is required to compile a scientific work called Final Project, after the person concerned has fulfilled certain requirements.

Final Project is a course that aims to make students able to formulate statistical problems and solve them in one of 5 applied fields, namely Industry, Economic-Financial, Computing, Social-Population, and Environmental-Health.

The final project can be in the form of research or design (design) which has the following characteristics:

- a. Having a problem formulation for research, and ideas for design.
- b. The title of the final project is chosen by the students themselves or determined by the supervisor.
- c. Based on laboratory/field observations (primary data) and/or secondary data analysis.
- d. There must be methodological order.
- e. Under periodic and regular guidance by the supervisor.
- f. Must be careful in the presentation (scientific writing or drawing rules).
- g. Presented in a seminar forum.
- h. Defended in an oral exam in front of a team of examiners.

#### 1.2. Objectives

By compiling the Final Project, students are expected to be able to summarize, apply, express, solve all knowledge, skills, ideas and problems in certain areas of expertise systematically, logically, critically and creatively, supported by accurate data/information with appropriate analysis.



for completing studies in undergraduate and diploma programs which have the aim that students:

- a. Able to form a scientific mental attitude
- b. Able to identify and formulate research or design problems based on certain rationales which are considered important and useful in terms of several aspects.
- c. Able to carry out research/design, from preparation, implementation, to reporting.
- d. Able to conduct quantitative and/or qualitative studies, and draw clear conclusions.
- e. Able to present and defend the results of the Final Project in an oral exam in front of a team of examiners.

### 1.3. Final Project Form

project form can be in the form of research or design, which consists of a final project proposal and a final project report.

#### 1.3.1 Final Project in the form of research

Final Project in the form of research of research must contain clarity about the things to be investigated (*projects/ something to be inquired or examined*), including:

- a. Objects to be studied
- b. Problems to be solved
- c. Hypothesis to be proven/tested (for undergraduates)
- d. Something (which is still a) question that you want to find an answer to.

#### 1.3.2 Final project in the form of design

Final project in the form of design must contain clarity about the things to be designed, including:

- a. Object to be designed
- b. Design problem to be solved or design idea to be achieved





- c. Design method to be used to solve the problem or will be used to achieve the idea
- d. Description of the advantages and disadvantages of the draft

#### 1.4. Material Substance

output of the Final Project is the Final Project report book, so the Final Project material/substance must be contained in the Final Project report book. Some things that need to be considered in writing Final Project at the Statistics Department are:

- Final Project Statistical problems: must be *statistical problems* (there are elements: probability, sampling, estimation or statistical inferential) which contain *cause effects* (there must be controlled experiments), *Relationship* (there are allegations) about the relationship between predictor variables and responses) or *association* (categorical cases). It is stated in the Introduction in the background and problem formulation sub-chapters.
- There must be a referenced journal. (at least 1 main journal: international journals can be statistical and or applied journals. If for method libraries, it refers to the journals of the last 10 years while for case study literature it is not limited by year or refers to text books).

#### 1.5. Standard Operational Procedures Final

##### Project Validation Process:

1. Checking the feasibility of data:
  - a. Checking the questionnaire
  - b. Checking the legality of the data: checking the permit to take data at the agency
  - c. Final Project guidance form
2. Checking the suitability of the computer output results with the data in the discussion.
3. The truth of the data processing process.



4. Did not check the suitability of the method (in proposals and exams).
5. The validator provides notes on Form P1.
6. The validation results are submitted to the supervisor for approval. After that, the validation form (Form P1) which has been signed by the supervisor is submitted to the administration.

Note:

Feasibility of data:

1. If a survey is conducted:  
Must have: questionnaire, minutes, *call back*,  
evidence: photos (checked by supervisor and **validation team**)  
Protocols/signs: sampling method, random method
2. If company data: there must be legality from the company

In writing the Final Project book:

7. English needs to be validated by the supervisor. Project

### **Final Guidance:**

1. The process of replacing the supervisor if the Final Project completion time has passed one semester. It is necessary to confirm from two sides, supervisors and students based on the Final Project progress report.
2. The Final Project progress report is carried out by the Laboratory by means of students collecting guidance forms no later than 12 weeks.
3. If the Final Project has passed two semesters, they must change the title and supervisor.

### **Validation Administration:**

1. Students submit the required documents to the TU.
2. TU checks the completeness of each student's documents and groups them by validator.



3. TU submits these documents to the validator.
4. Validator performs validation and provides evaluation.
5. Validator submits validation results and complete Final Project documents to TU.

Note:

1. In the Final Project validation administration SOP no. 3 and 5, the submission of documents is done by students.
2. Comparison of Final Project between S1 and D3 regarding the content of the problem limits

Upload Pomits does not need all of the contents of the Final Project.



*(Halaman ini sengaja dikosongkan)*



## OVERVIEW AND PROCEDURE OF FINAL PROJECT

### 2.1 Overview of Assignments The end of the Final Project

learning process at the ITS Statistics Department includes

1. Lectures,
2. Practical Work (KP),
3. Final Project.

In general, the Final Project activity consists of 2 phases, namely: the pre-presentation phase and the Final Project result presentation phase. The pre-presentation phase of Final Project consists of 5 stages and these five stages are recorded by forms PP-1 to PP-5. While the Presentation phase is recorded by forms P-1 to P-2. In general, the documents in the final project consist of 18 pieces, including guidelines, procedures and recordings of activities. The 18 documents can be seen in the following table.

**Table 2.1** Documents in Final Project

PHASE	No	Description	Code	No Code	Type Document Type
Pre Presentation of Final Project results	1	Attendance at seminar	PP-1	4	Record of activities
	2	Guidance on Proposals for Final Project	PP-2	5	Record of activities
	3	Minutes of Seminar on Final Project Proposal	PP-3	6	Record of activities
		Proof of Attendance at Final Seminar	PP-3AProject	7	Record of activities
	4	Proposal	revisio n PP-4	8	Record of activities
	5	Guidance of Final Project	PP-5	9	Record of activities
PHASE	No	Description	Code	No Code	Type Document

Phase Presentation of Final Project results	1	Final Project Validation	P-1	10	Record of activities
	2	Form ratings seminar Final Project	P-2	11	Record of activities
		evidence The presence of examiners seminar and exam Final	P-2A	12	Record of activities
		List present students participating in the seminar on the results of Final Project	P-2B	13	Record of activities
	3	Form improvement Papers Final Project	P-3	14	Record of activities
		TAPaper Repair Form	P-3A	15	Record of activities
	4	TAExam Form	P-4	16	Record of activities
		TAexam assessment results	P-4A	17	Record of activities
	5	Summary form ofRepair Report Form Final Project	P-5	18	Record of activities
	If most students need a cover letter from the Department for data requests to companies/agencies, so students must fill out the F1 form (See in the Practical Work document)				

Based on the 2009 Academic Regulation - Article 4 paragraph 6: *One credit for the implementation of final assignments, theses, and dissertations is defined as a burden study to participate in these activities for 200-300 minutes per week in one semester.* So that the completion of Final Project with a load of 6 credits takes between 320 – 480 hours in one semester or if students work 4 hours per day in a row including Sundays, the Final Project completion time is 10.7 to 16 weeks/semester.



The time is used for proposal making, proposal seminars, surveys or data collection, data entry and analysis and drafting including consultation with supervisors. Estimated completion time for each of these components can be seen in Table 2.2.

**Table 2.2** Description of Final Project creation time

No	Activity	Length of activity (weeks)			
		Minimum		Maximum	
1	Proposal making	2	2	4	4
2	Proposal and revision seminar	2	2	2	2
3	Data Collection	3.7	6.7	4	10
4	Data Entry	1		2	
5	Data Analysis	1		2	
6	Finishing drafts + Papers	1		2	
Time for Completion of Final Project		10.7	10.7	16	16

## 2.2 Final Project Procedure

Based on the above provisions to make it easier, the Final Project procedure is as follows:

### 1. Dissemination of Final Project, including:

- a. Dissemination of Final Project Topic. The Head of the Laboratory conveys the topic of research in their respective laboratories.
- b. Dissemination of Final Project Making Procedures. The Secretary of Study Program-1 socializes administrative procedures for Final Project.

### 2. Drafting of Final Project Proposals

- a. Students can contact the lecturers at the Statistical Laboratory of FSAD-ITS in drafting the Final Project proposal and report to the head of the laboratory, so that the number of students entering the laboratory is detected.
- b. The time for drafting a proposal is 2-4 weeks, it must be completed by week 0 (during the trusteeship).

### 3. Final Project Registration Final Project

- a. registration opens 2 weeks after the end of the EAS period.
- b. At the time of registration Students fill out the online registration form and submit:
  - i. Draft proposal
  - ii. Final transcript
  - iii. TOEFL certificate
  - iv. Evidence of having attended seminars 10 times (Form PP-1)

Draft proposal as referred to in number b. at least include the background of the problem, the objectives and the methodology used. The purpose of making a draft proposal is to determine the supervisor to be appropriate (at least 90% appropriate).

**4. The division of Final Project supervisory lecturers, the**

- a. Secretary of Department I and the collaborators to determine the supervising lecturers.
- b. The distribution of supervisors is carried out in each laboratory, based on: The
  - i. suitability of the competence of the lecturers, The
  - ii. capacity of the lecturers adjusted to the rules in the BAN-PT assessment, namely, if the number of mentors: 1-4 people, the assessment will get a maximum score (4)
  - iii. Student choice. Students are given the opportunity to choose, but if a lecturer has received a full load, then the Secretary of Department I has the right to transfer to another lecturer.
  - iv. Proportional, meaning that it is proportional between the number of students and the number of lecturers in the laboratory.
- c. Announcement of the supervisor no later than 1 week after the closing of registration.

**5. Making a proposal with the supervisor**





- a. The preparation of the proposal is carried out with the supervisor.
- b. Proposals that have been corrected by the supervisor are collected in the S1 Administration unit.
- c. At the time of making the proposal, students must bring the PP-2 form to be signed by the supervisor as proof that they have been mentored at least 3 times.

#### 6. Proposal Seminar

- a. Students register for a Final Project proposal seminar by submitting a revised proposal and proof of guidance, namely Form PP-2
- b. Secretary of the Department of Defense I make a proposal seminar schedule for students who register for a proposal seminar and will be announced to students and supervisors at least 2 days before the seminar.
- c. The proposal seminar is held on the week
- d. After the proposal seminar, students are given the opportunity to improve the proposal under the direction of the examining lecturer by bringing Form PP-3.
- e. Submission of proposal revisions one week after the proposal seminar schedule and approved by the proposal examiner team. If in one semester students do not submit proposals that have been corrected, they must conduct a re-proposal seminar in the following semester.

#### 7. FinalThe final

- a. Project Guidance Processproject mentoring process lasts approximately 16 weeks. The mentoring process may include surveys/data collection, data analysis and writing methods.
- b. During the mentoring process, students must bring Form PP-4, as proof of having been mentored. Minimum amount of guidance 5 times

#### 8. Seminar and FY exam



The procedure for Seminar Activities and Final Project exams is as follows:

- f. Students register to the administration section by bringing:
  - i. TOEFL certificate for those who pass with a score of 477. For those who have not passed, they are not allowed to register for the seminar results in this semester.
  - ii. Final Project drafts and papers totaling:
    - 1) 3 copies each if there is no *Co*-supervisor
    - 2) 4 copies each if there is a *Co*-supervisor.
  - iii. Evidence of the number of Final Project guidance at least 5 times (form PP-3)
  - iv. Evidence of SKEM scores, namely scores that indicate students have participated in extra-curricular activities. Based on the 2014 ITS Academic Regulations, the minimum SKEM score is 1300 for the Regular Undergraduate study program. Meanwhile, for the Cross Pathways Undergraduate study program, there is no SKEM requirement.
- g. After registering for the Seminar and Final Project Exam, students will follow these 5 steps:
  - i. **VALIDATION PROCESS**

Students carry out the validation process according to the schedule agreed upon by the validator (chairman of the session). Validation is carried out no later than 1 day before the final project seminar. Students must bring the Final Project report and validation form, namely Form P-1 as proof of having validated.
  - ii. **FINAL ASSIGNMENT SEMINAR**

Students make Final Project presentations openly in front of a team of examiners and a minimum of 10 students. Students presenting Final Project must wear black bottoms, white tops, and alma mater coats. The final project seminar is conducted with a duration of



approximately 45 minutes. Examiners assess students with Form P-2.

iii. FINAL PROJECT EXAM.

After the final project seminar, students take a closed oral exam. The Examiner Team assesses student performance with Form P-4. The final assignment exam is carried out for 60 minutes.

iv. REPAIR OF PAPERS

After the FY seminar, students must improve their papers according to the advice of the examiner and supervisor during the presentation session. Students must submit paper repair forms (Form P-3 and P-3A) and corrected papers to the administration.

v. Final Project REPORT REPAIRS

Students must make Final Project repairs immediately after the exam with a duration of approximately 1 week. During the revision of the Final Project report, students bring Form P-5. The proof of improvement in the Final Project report (Form P-5) is submitted to the administration. The Final Project report that has been recorded is signed by the Head of Department with the initials of Sekdep I. Furthermore, the signed Final Project book is submitted to the statistics reading room (RBS) and the ITS library.

vi. YUDISIUM COMPLETENESS CHECK LIST

Students must complete the required documents for graduation, such as free dependent forms, Final Project repair forms, paper repair forms, latest transcripts with Final Project scores, free letters, TOEFL certificates, latest SKEM, posters, and uploading journals/articles to POMITS. Details of the completeness of the judicial requirements can be seen in Appendix 23.

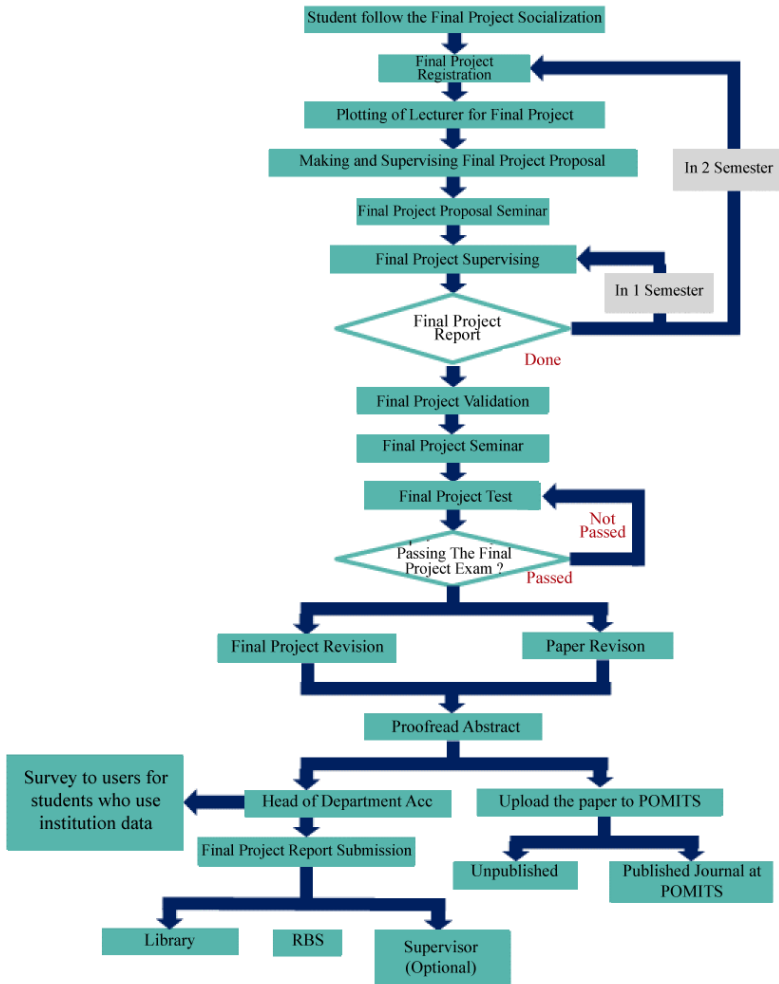
Summary of Final Project activities can be seen in Table 2.3 and Figure 2.1.



**Table 2.3** Summary of FY Activities

No	ACTIVITY	TIME/TIME	PIC	TIME	FORM
1	Final Project socialization includes: a. Topic Socialization b. Socialization of Final Project SOP	After EAS	Undergraduate Study Program	1 day	Final Project SOPTA
2	Registration	Week 0	Study Program Secretary	1 day	PP-1
3	Distribution of supervisors	1st week of lectures for Study	Program & Head of laboratory	1 week	
4	Preparation of Final Project proposals and discussed with supervisors	Week 1 2 & 3lectures	Student	2 weeks	PP-2
5	Final Project proposal seminar.	Week 4 & 5 of lectures	Examiner Team	1 week	PP-3, PP-3A
6	Final Project proposal approved by examiners and supervisor	Week 5 & 5 lectures	Examiner & Advisor Team	2 weeks	PP-4
7	Drafting of Final Project: survey, entry , data analysis & draft finishing	6th week to 16th week of lectures	Supervisor <i>Supervisor</i>	10 weeks	PP-5
8	Validation, Seminar and Final Project Exam	In week 17-18	Examiner Team	2 weeks	P-1 P-2, P2A P2B, P-3, P3A, P-4, P-4A, P-5
9	Administrative settlement	2 weeks beforegraduation	Kadep's	1 week	Free Library
10	Collection of Final Project reports that have been signed by Head of Head of Department	2 weeks beforegraduation	Kadep's	1 day	





Picture 2.1 Final Project Procedure

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## CHAPTER III

### FINAL PROJECT PROPOSAL

#### 3.1 Content of Final Project Proposal

The Final Project Proposal should be made in a comprehensive, comprehensive and detailed manner containing the following:

a. Proposal Title

The title of the proposal should be brief, clear and describe the main theme. The title must be translated into representative English and written at the bottom of the Indonesian title.

b. Brief Description

A brief description of what to do with the Final Project (300 words to 500 words).

c. Introduction

The introduction contains things that encourage or things that are behind the importance of doing the research. The components in this chapter include: (1) Background problems; (2) Formulation of problems; (3) Limitation of the problem/scope; (4) Research objectives and (5) Relevance or Benefits of research results.

1. Background Issues

Any research submitted for the Final Project must have a background of (actual) problems that do require solving. The background of the problem needs to be clearly outlined to the extent possible supported by the results of previous studies or secondary data.

2. Problem Formulation

Research issues should be written in the form of declarations or sentences of unequivocal and clear questions. Research problems are the formulation of the gap between existing circumstances and the circumstances to be achieved.



3. Problem/Scope Limitations

The scope of the problem contains the variables to be studied and variables that are assumed to be constants or parameters that are ignored.

4. Research Objectives

The purpose of the research contains a description of the results to be achieved or the answer to the research problem. The form of answer can be in the form of questioning, parsing, explanation, proof, application of a symptom, concept or guess, or the creation of a prototype

5. Relevance or Benefits of research results

In this section is described briefly but clearly the contribution of research results to the development of the field of science, technology, art and or to the solving of development problems, and or to the development of institutions

d. Literature Review

The literature review contains the most recent, relevant and original references. Literature review describes theories, findings, and other research materials that are directed to develop a framework of thought or concepts to be used in research.

e. Methodology

Methodology contains materials, equipment, and how it works and techniques / processes of workmanship. What is meant by materials are: materials, data and other research results. What is meant by equipment: laboratory and field test equipment, hardware and software, theories and equations, and variabel. What is meant by the process: data collection and analysis techniques, approach models used, design, research, ways of interpretation and collection of research results, trials and evaluation methods, and how to collect. In this chapter it is necessary to explain the place / location of the implementation of Final Project.





f. Schedule

The schedule of activities contains details of each research activity that is grouped in units of weeks.

g. Reference list

The reference list contains all the references referenced in the proposal.

### 3.2 Writing Format of Final Project Proposal

The typing of the Final Project proposal follows the following conditions:

- Paper type and size:
  - A4 size HVS paper (210 mm x 297 mm)
- Spacing: 1 (one)
- Margin:
  - Top edge: 3.0 cm
  - Bottom edge: 2.5 cm
  - Left edge: 3.0 cm
  - Right edge: 2.0 cm
- Font type:
  - Times New Roman, Normal, size 12 (for titles usable size 14).
  - Words derived from untranslated foreign languages are italic



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## CHAPTER IV FINAL PROJECT REPORT

### 4.1. Systematics

The final project report systematics consists of three major parts, namely:

1. The 'Initial' section consists of:
  - a. Final Project title in Indonesian and English on facial and inner skin
  - b. Endorsement page
  - c. Abstract or short description in Indonesian and English
  - d. Foreword
  - e. Table of contents
  - f. List of pictures, graphs, diagrams
  - g. List of tables
  - h. List of symbols
2. The 'Core/Tree' or 'Torso' section contains:
  - a. Introduction
    - Background issues
    - Problem formulation
    - Problem/scope limitations
    - Purpose
    - Benefits (if necessary to write)
  - b. Literature Review
    - Relevant results of previous research
    - The theory that will be used to solve the problem
  - c. Methodology
    - Methods used
    - Materials and equipment used
    - Order of execution of the experiment
  - d. Result and Discussion
    - Test/measurement result data
    - Discussion (analysis, synthesis and evaluation)



- e. Conclusions and Recommendation
  - In the form of research results that answer problems or in the form of concepts, programs, and design works
  - Suggestions (if deemed necessary), contain things that can still be done better and can be developed further, or contain problems experienced during the Final Project process
3. The 'Last' section consists of:
  - a. References
  - b. Attachment (if any)
  - c. Author bio

The following is an explanation of each part:

- Title Page

The title page (Appendix 1) is the same as the outer skin page, containing: the words "FINAL PROJECT", the title of the Final Project, ITS emblem, the name of the author with the student identity number (NRP), the name of the Department, Faculty, Institute (written in full), and the name of the city (Surabaya), as well as the year of making. The title page is written in English and Indonesian on different pages. Both pages of the title use the same font characteristics as the other page sections (not embossed letters or colors).

The Final Project Title must be typed entirely in uppercase and should not be abbreviated, unless the abbreviation is pre-standard.

The author's name must be capitalized and not abbreviated.

- Approval Page

The approval page is placed on the page after the title page.

The authentication page contains: the text "APPROVAL SHEET", the title of the Final Project, the purpose for which the Final Project was submitted, the approval of the supervisor (can be more than one), the names of the supervisors, the city, the month and year of ratification.



This page is always typed in uppercase letters, right in the middle of the left-right symmetry page. Example of the authentication page in appendix 16.

- Abstract Page

Abstract pages contain: title, author name, nrp, supervisor name, Co-supervisor, abstract, and keyword. Abstract pages is written in English and Indonesian in different pages. The maximum number of words is 400, including keywords. Example of an abstract page in appendix 17.

- Preface Page

The preface is no more than one page, containing an explanation of the purpose of writing the Final Project report, including thanks to people who have contributed directly to the preparation of TA. The words "PREFACE" as the title of this page is written entirely in uppercase letters.

- Table of Contents Page

Listed in the table of contents: title, authentication sheet, abstract, foreword, table of contents, table of tables, picture list, symbol list, chapters up to sub-chapters, bibliography, attachments. It's all complete with the appropriate page number. The word "TABLE OF CONTENTS" as the title of this page is written entirely in uppercase letters.

- Picture List Page

The image list writing format is identical to the table of contents writing format. The PICTURE LIST as the title of this page is written entirely in uppercase letters.

- Table List Page

The table list writing format is identical to the table of contents writing format. The table as the title of this page is written entirely in uppercase.

- Introduction

- Background: must contains *real problem* and *statistical problems*



- Formulation of the problem

Research problems are the formulation of gaps between theory and problems in statistics must contain at least objects, variables and there is a concept structure.

- Objectives: Not necessarily a sentence of the problem news

- Literature Review

The principle contains things relevant to the research Problem

- Basic theories that support research topics. Materials how to write a library see its TA instructions.
- Literature studies conceptual frameworks used in the selection of variables that became the object of previous research and research

(No need to write statistical and non-statistical reviews as sub-chapter titles, directly written topics)

- Research Methodology

Data:

- Contain research variables
- If the data is secondary, it must contain the data source, how to obtain the data and the feasibility of the data (official publication, there is a concept of definition and legality of the data from the relevant agency attached)
- If the primary data is through a survey, it must be explained the Sampling Technique and must be attached to the legality of the survei
- If primary data through experiments, it should be explained the design of the experiment
- If using simulation data, it should be mentioned data generation techniques and algorithms

Analysis steps.

The analysis steps are tailored to the research objectives.



- Analysis and Discussion
    - Adjusted to the purposed.
    - Feasibility test of the method used (including assumption test)
  - Conclusion and Recommendation
    - Based on the objective
- Recommendation: should be based on the analysis result

- References

1. If the references is a book

Haerdle, W. K., Prastyo, D. D., & Hafner, M., (2014), *Support Vector Machines with Evolutionary Model Selection for Default Prediction*, in J. Racine, L. Su, and A. Ullah (Eds.), *The Oxford Handbook of Applied Nonparametric and Semiparametric Econometrics and Statistics*, Oxford University Press, New York, pp. 346-373.

Lee, E. T., & Wang, J. W., (2003), *Statistical Methods for Survival Data Analysis* (3rd ed.), John Wiley and Sons Inc., New York.

2. If the references is part of a book written by many authors.

Abraham, G.H. 1989. **Differential and Integral** in Franklin, J.H. (Ed). **Fundamentals of Mathematics**. Chicago: University of Chicago Press.

3. If the references is Proceeding

Li, H., & Luan, Y., (2003), “Kernel Cox Regression Models for Linking Gene Expression Profiles to Censored Survival Data”, *Pacific Symposium on Biocomputing* 2003, Vol. 8, 65-76.

Li, H., & Luan, Y., (2005), “Boosting Proportional Hazards Models Using Smoothing Splines with Applications to



High-Dimensional Microarray Data”, *Bioinformatics* 2005, Vol. 21, No. 10, 2403-2409.

4. If the references is an article from a Journal
  - Baddeley, A., Jammalamadaka, A., dan Nair, G. 2014. “Multitype point process analysis of spines on the dendrite network of a neuron”. **Journal of the Royal Statistical Society: Series C (Applied Statistics)** 63, 5:673–694.
  - Chandra, R. 2015 “Competition and collaboration in cooperative coevolution of elman recurrent neural networks for time-series prediction”. **IEEE Transactions on Neural Networks and Learning Systems** 26, 3123-3136.
  - Coeurjolly, J., Møller, J., dan Waagepetersen, R. 2017. “A tutorial on Palm distributions for spatial point processes”. **International Statistical Review** 85, 3:404–420.
  - Jacson, R. 1979. “Running Down The Up Escalator : Regional Inequality In Papua New Guinea”. **Australian Geographer** 14 (May) : 175-184.
  - Koubias, S.A. and Papadopoulos, G.D., Aug. 1995. “Modern Fieldbus Communication Architectures for Real-Time Industrial Application”. **Computer In Industry** 26, 3:243-252.
  - Makridakis, S., Spiliotis, E. dan Assimakopoulos, V. 2018. “The M4 competition: results, findings, conclusion and way forward”. **International J. Forecasting** 34, 802-808.
  - Zhang, G. P. 2003 “Time series forecasting using a hybrid ARIMA and neural network model”. **Neurocomputing** 50, 159-175.





5. If the references is an article from a Magazine  
Santori, M., dan Zech, K., Maret 1996. "Fieldbus brings Protocol to Process Control". **IEEE Spectrum** 33, 3:60-64.  
Weber, B. 1985. "The Myth Maker : The Creative Mind". **New York Times Magazines**, 20 October, 42.
6. If the references is an article from a Newspaper  
**Kompas** (Jakarta). 1992. 4 Januari.  
**Jawa Pos** (Surabaya). 1993. 21 April.  
Rahayu, S. 1992. "Hendak Kemana Arsitektur Rumah Susun Indonesia?". **Kompas** (Jakarta), 5 Maret.  
Sjahrir, A. 1993. "Proposal Ekonomi Indonesia". **Jawa Pos** (Surabaya), 22 Maret.
7. If the references is an article from Internet  
Coutinho, J., Martin S., Samata, G., Tapley, S. dan Wilkin, D., 1995. **Fieldbus Tutorial**, <URL:<http://kernow.curtin.edu.au/www/fieldbus/fieldbus.html>>.  
Pinto, J.J., Feb. 1997. **Fieldbus : A Neural Instrumentation Vendor's Perspektive Communication**, <URL:<http://www.actionio.com/jimpinto/fbarticl.html>>.
8. Other References (Manual, Brochure, etc.)  
Reliable Supply in Reliable Quality. **Brosur PT. Dharma Sarana Perdana**. Pulo Gadung Industrial Estate, Jakarta.  
Engineering Education and Training. **Catalogue Plint Engineering**. Oakland Park, Wokingham.  
Monograf Kelurahan Wonorejo, Rungkut, Surabaya, 2006.



- Author Bio

Written on the last page and contains the author's resume, other places and dates of birth, educational history, prominent activities, organization, achievements that have been achieved, and others. In the upper left corner is displayed the latest photo close-up author size (4x6) cm and recommended color photo. An example of a bio is seen in Appendix 4.

## 4.2 Report Format

The typing for Final Project report should follow the following rules:

- a. Paper type and size:  
HVS paper 80 grams A5 size (148 mm x 210 mm)
- b. Spacing: 1 (one)
- c. Margin:
  - Top edge: 2.5 cm
  - Bottom edge: 2.5 cm
  - Left edge: 2.5 cm
  - Right edge: 2.0 cm
- d. Font Type:  
Times New Roman, Normal, size 11 (for wearable title size 12)
- e. Tables and images, if any, are also presented on the same paper wherever possible.
- f. Page Numbers
  - The 'Beginning' section is given a page with Roman numerals in lowercase letters (i, ii, iii, iv, v, ... etc.) placed at the bottom in the middle of the page.
  - The 'Core/Tree or Torso' and 'End' sections are numbered in order with arabic numerals, starting with the number 1 and starting from the Introductory Chapter up to the appendix.
  - The page number is written above (header) on the right for the odd page and the left for even pages, unless the first page of the new chapter is written under



the right (footer) and starts with the odd page number.

- Pages with odd numbers are placed on the right sheet and even pages on the left sheet. If a chapter ends on an odd numbered page, a blank page with an even page number is added (it says " This page was intentionally left blank").
- Between chapters are delimited pages in blue without being numbered pages.

g. Tables and Pictures

The tables are numbered in order in each chapter with arabic numbers with the provisions of writing as follows:

- The number consists of two parts, the first part shows the chapter while the second part shows the table number (example: Table 2.1, Table 3.2, Table 3.3, etc.).
- Table Numbers and Headings are placed on top of the table and each word starts with uppercase except conjunctions.

The pictures are numbered in order in each chapter with arabic numbers with the following writing conditions:

- The number consists of two parts, the first part shows the chapter while the second part shows the sample image number: Figure 2.1, Figure 3.2, Figure 3.3, etc.).
- The Image Number and Title are placed below the image

h. The thickness of the face and back skin is not more than 1 mm (soft cover). The text on the face skin is the same as the Final Project Title sheet.

i. Different levels of chapter titles

- Chapters and Chapter Titles : typed in uppercase all on a new page with a balanced distance from the left and right edges (center) and thickened. The chapter num-



ber is written in Roman letters, the chapter title is written on the next line.

- Subtitles: the first letters of each word, except conjunctions, are written in bolded uppercase and placed from the left edge.
- Child subtitles: written starting from the left edge and thickened. The first letter of the subtitle child is written in uppercase
- If there are still titles in the lower levels, written as in c


j. Reference and Reference List.

All library resources referenced directly must be listed. The way to mention the source is to write the author's name and year of publication in parentheses. For quotations taken not directly from the original, the original author's name and editor's name (e.g Faqih in Sulistijono, 2006). How to write a list of references can be seen in Sub chapter 3.10.



## ATTACHMENT

### Attachment 1. Proof of Attendance at Final Project Seminar


	<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>				<b>PP-1</b>												
	Bukti Kehadiran di Seminar Final Project <i>Evidence of Final Project Seminar Attendance</i>																
TA-S1-04	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :31 of 72													
Nama mahasiswa /Student name : .....																	
NRP/ Student Identity Number : .....																	
<b>No</b>	<b>Nama Penyaji/Presenter name</b> NRP/ Student ID Tanggal/Date		<b>Judul Final Project</b> Title Final Project		<b>TT Moderator</b> Moderator Sign												
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</i>																	
Form PP-1 merupakan bukti bahwa mahasiswa telah mengikuti tahap pertama dari 5 tahap pada fase pra Presentasi TA, yaitu minimal menghadiri seminar TA 10 kali. Formulir ini digunakan sebagai syarat pendaftaran TA. <i>PP-1 Form is evidence that the student has followed the first phase of the 5 stages in the pre Presentation TA, that is at least 10 times the TA attending seminars. This form is used as a condition of registration TA</i>																	
<b>PP-1</b>	<input checked="" type="checkbox"/>	PP-2	PP-3 PP-3A	PP-4	PP-5												
Kehadiran seminar TA <i>FP Seminar Attendance</i>	Bimbingan Proposal TA <i>FP Proposal Supervision</i>	Seminar Proposal TA <i>FP Proposal Seminar</i>	Perbaikan Proposal <i>Revised Proposal</i>	Pembimbingan TA <i>FP Supervision</i>													
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	<b>PP1</b>	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5



## Attachment 2. Evidence of Final Project Guidance

	<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>				<b>PP- 2</b>												
	Bukti Pembimbingan Proposal Final Project <i>Supervision of Final Project Proposal Evidence</i>																
TA-S1-05	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :32 of 72													
Nama mahasiswa /Student name : .....																	
NRP/ Student Identity Number : .....																	
No	Tanggal Date	Materi yang dibahas Proposals Content Discussed			TT Pembimbing Supervisor Sign.												
1																	
2																	
3																	
4																	
5																	
Tanda tangan mahasiswa /Student Signature																	
Surabaya,.....  Pembimbing Utama / Main Supervisor  (.....) NIP. ....			Pembimbing kedua / Co-Supervisor  (.....) NIP. ....														
Form PP-1 merupakan bukti bahwa mahasiswa telah mengikuti tahap pertama dari 5 tahap pada fase pra Presentasi TA, yaitu minimal menghadiri seminar TA 10 kali. Formulir ini digunakan sebagai syarat pendaftaran TA. <i>PP-1 Form is evidence that the student has followed the first phase of the 5 stages in the pre Presentation TA, that is at least 10 times the TA attending seminars. This form is used as a condition of registration TA</i>																	
Form PP- 2 merupakan bukti bahwa mahasiswa telah melakukan bimbingan penyusunan proposal, yang merupakan proses ke-2 pada fase pra Presentasi TA. Formulir ini merupakan salah satu persyaratan pendaftaran Seminar proposal TA <i>PP-2 Form is evidence that the student has made the proposal development guidance, which is the 2nd in the pre Presentation of FP. This form is one of the proposals Seminar registration requirements FP</i>																	
PP-1	<b>PP-2</b>	✓	PP-3	PP-4	PP-5												
Kehadiran seminar TA <i>FP Seminar Attendance</i>	Bimbingan Proposal TA <i>FP Proposal Supervision</i>		Seminar Proposal TA <i>FP Proposal Seminar</i>	Perbaikan Proposal <i>Revised Proposal</i>	Pembimbingan TA <i>FP Supervision</i>												
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	<b>PP2</b>	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5

### Attachment 3. Report of Final Project Proposal Seminar

		<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>				<b>PP- 3</b>											
		Berita Acara Seminar Proposal Final Project <i>Record of Final Project Proposal Seminar</i>															
TA-S1-06	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :33 of 72													
Nama mahasiswa /Student name : ..... NRP/Identity Number : ..... Hari,tanggal,jam/Day,date,time : ..... Ruang /Room : .....																	
Penguji/Examiners		Saran Perbaikan/ Suggestions Improvements															
Mahasiswa/Student	Penguji-1/Assesors-1	Penguji-2/Assesors-2	Co Pembimbing Co Supervisor	Pembimbing utama Main Supervisor													
(.....) NIP. ....	(.....) NIP. ....	(.....) NIP. ....	(.....) NIP. ....	(.....) NIP. ....													
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</i>																	
PP-1	PP-2	PP-3 PP-3a	✓	PP-4	PP-5												
Kehadiran seminar TA FP Seminar Attendance	Bimbingan Proposal TA FP Proposal Supervision	Berita acara Seminar Proposal TA recording Proposal Seminar of FP	Perbaikan Proposal Revised Proposal	Pembimbingan TA FP Supervision													
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5



## Attachment 4. Attendance List of Proposal Seminar Participant

	<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			<b>PP-3A</b>
	Daftar Hadir Peserta Seminar Proposal Final Project <i>List of Participants Present Final Project Proposal Seminar</i>			
TA-S1-7	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :34 of 72


Nama Penyaji /Presenter name : .....		NRP/SN : .....	
Hari,tanggal,jam/Day,date,time : .....		Ruang /Room : .....	
No	NRP Number Identity	Nama Peserta Seminar Proposal TA Name Of Participants FP Proposals	Tanda Tangan Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5.  
In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.

PP-1	PP-2	<b>PP-3</b> <b>PP-3A</b>	✓	PP-4	PP-5												
Kehadiran seminar TA <i>FP Seminar Attendance</i>	Bimbingan Proposal TA <i>FP Proposal Supervision</i>	Daftar hadir seminar proposal <i>List of attendance Proposal seminar TA</i>		Perbaikan Proposal <i>Revised Proposal</i>	Pembimbingan TA <i>FP Supervision</i>												
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	<b>PP3A</b>	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5
Jika peserta lebih dari 30 harap minta pada moderator untuk menambah formulir PP-3A/If more than 30 participants please tell the moderator to add PP-3A form																	




## Attachment 5. Bukti Perbaikan Proposal TA


		<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>						<b>PP- 4</b>									
		<b>Evidence of Improvements Proposals Final Project</b> <i>Evidence of Improvements Proposals Final Project</i>															
TA-S1-08	Curriculum 2018 , February 2019 Ed	Revision Number : 01		Code/sks : KS184822 / (0/0/6)		Page :35 of 72											
Nama mahasiswa /Student name : ..... NRP/ Student Identity Number : .....																	
No	Dosen Penguji Assessors	Komponen Proposal Yang diperbaiki Proposals Content Improvement						TT Penguji Assessors Sign									
1																	
2																	
3																	
4																	
Surabaya....., 2019  Pembimbing Utama / Main Supevisor  ( NIP. )					Co- Pembimbing / Co-Supervisor  ( NIP. )												
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</i>																	
Form PP- 4 merupakan bukti bahwa mahasiswa telah memperbaiki proposal, yang merupakan proses ke-4 dari 5 langkah pada fase pra presentasi TA. Formulir ini adalah salah satu syarat untuk pendaftaran Seminar dan Ujian TA <i>PP-4 Form is evidence that students have improved the proposal, which is the 4th of the 5 steps in the pre-phase FP presentation. This form is one of the requirements for registration Seminar and Exam of FP</i>																	
PP-1		PP-2		PP-3 PP-3A		<b>PP-4</b>	✓	PP-5									
Kehadiran seminar TA FP Seminar Attendance		Bimbingan Proposal TA FP Proposal Supervision		Seminar Proposal TA FP Proposal Seminar		Perbaikan Proposal Revised Proposal		Pembimbingan TA FP Supervision									
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	<b>PP4</b>	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5



## Attachment 6. Proof of Final Project Supervising


		PROGRAM STUDI SI STATISTIKA FSAD-ITS				PP-5											
		Undergraduate Program Department Of Statistics FSAD-ITS															
		Bukti Pembimbingan Final Project				Page :36 of 72											
		Supervision of Final Project Evidence															
TA-S1-09	Curriculum 2018, Februari 2018.Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)														
Nama mahasiswa /Student name : .....																	
NRP / Student Identity Number : .....																	
No	Tanggal Date	Materi yang dibahas Proposals Component Discussions			TT Pembimbing Supervisor Signature												
1																	
2																	
3																	
4																	
5																	
6																	
Tanda tangan mahasiswa /Student Signature																	
Surabaya,.....  Pembimbing Utama / Main Supevisor  (.....) NIP. ....			Surabaya,.....  Co Pembimbing / Co Supevisor  (.....) NIP. ....														
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.																	
Form PP- 5 adalah bukti bahwa mahasiswa telah melakukan pembimbingan TA, yang merupakan proses ke-5 dari 5 langkah pada fase pra presentasi TA. Formulir ini adalah salah satu syarat untuk pendaftaran Seminar dan Ujian TA PP-5 Form is evidence that the student has done FP coaching , which is the 5th of the 5 steps in the pre-phase presentation of FP. This form is one of the requirements for registration Seminar and Exam of FP.																	
PP-1		PP-2	PP-3 PP-3A	PP-4	PP-5 ✓												
Kehadiran seminar TA FP Seminar Attendance		Bimbingan Proposal TA FP Proposal Supervision		Seminar Proposal TA FP Proposal Seminar	Perbaikan Proposal Improvement Proposal	Pembimbingan TA FP Supervision											
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5

## Attachment 7. Final Project Validation Form

	<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>				<b>P-1</b>
	Validasi Final Project <i>Final Project Validation</i>				
TA-S1-06	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :37 of 72	
Laboratorium/Laboratory of*: <b>SBI / SK / SLK / SSosPen / StEFA</b>					
<p>Yang bertanda tangan di bawah ini/<i>The undersigned below</i> :</p> <p>Nama Dosen (<i>Lecturer Name</i>) : .....</p> <p>NIP/<i>identity number</i> : .....</p> <p>Adalah anggota tim validator TA departemen Statistika, menyatakan bahwa mahasiswa dengan identitas berikut/<i>Is a validator team member for Final Project - Department of Statistics, stated that student with the following identity:</i></p> <p>Nama mahasiswa / <i>Student name</i> : .....</p> <p>NRP / <i>Student Identity Number</i> : <b>0621</b>.....</p> <p>Hari, tanggal, jam / <i>Day, date, time</i> : .....</p> <p>Telah melaksanakan validasi Final Project dengan hasil/<i>Has performed Final Project validation with results:</i></p> <ol style="list-style-type: none"> <li>Data yang digunakan dalam Final Project LEGAL/TIDAK LEGAL* / <i>The data used is LEGAL/NOT LEGAL*</i> (dinyatakan legal jika mahasiswa mampu menunjukkan surat keterangan pengambilan data yang telah ditanda-tangan pembimbing dan atau perusahaan/instansi. Khusus untuk data hasil survey, bisa menunjukkan foto bukti kejadian survey dan atau validator menghubungi acak responden melalui telepon)</li> <li>Hasil output komputer SESUAI/TIDAK SESUAI* dengan hasil pada draft laporan TA <i>The computer output is IN ACCORDANCE/NOT IN ACCORDANCE* with the results of the Final Project report.</i></li> </ol> <p>Sehingga dinyatakan/<i>It is stated that:</i>  <b>PERLU/TIDAK PERLU*</b> validasi ulang (DAPAT/TIDAK DAPAT* melaksanakan seminar dan Ujian TA)  <b>NEED/NO NEED*</b> to revalidate (CAN/CAN NOT* conduct the seminar and Final Project exam)</p>					
Saran hasil validasi / <i>Recommendation of validation result:</i>					
Student		Supervisor		Surabaya,....., ..... VALIDATOR	
( Nama Mahasiswa ) NRP. ....		( Nama Pembimbing ) NIP. ....		(.....) NIP. ....	
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</i>					
Form P-1 adalah bukti bahwa mahasiswa telah melakukan Validasi TA, yang merupakan langkah pertama dari 5 tahap pada fase Presentasi TA. Serahkan Formulir ini ke unit Administrasi karena Formulir ini merupakan syarat untuk seminar TA. <i>P-1 Form is evidence that the student has done Validation of FP, which is the first step of the 5 stages of the presentation phase of FP. Submit this form to the administrative unit for this form is a requirement for the seminar of FP.</i>					
P-1	v	P-2 P-2A,P-2B	P-3 P-3A	P-4 P-4A	P-5
Form Validasi Final Project <i>Final Project Validation</i>	Form Seminar TA <i>FP Seminar form</i>	Form Perbaikan Makalah TA <i>Improvement FP Papers form</i>	Form Ujian TA <i>FP Exam Form</i>	Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>	



## Attachment 8. Final Project Scoring Form

		<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			<b>P-2</b> Seminar Final Project <i>Final Project Seminar</i>
TA-S1-11	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :38 of 72	
Nama mahasiswa /Student name : NRP/Identity Number : Hari,tanggal,jam/Day,date,time : ..... Ruang /Room : .....					
No	KOMPONEN PENILAIAN / Assessment Components	BOBOT Weight	SKOR /SCORE (1-100)	NILAI /VALUE (bobot x skor)	
1	<b>PENULISAN MAKALAH/PAPER'S WRITING</b> a. Format & tata bahasa (gaya penulisan selingkung) <i>Format &amp; grammar (stylebook – a guide for grammar, punctuation, principles &amp; practices of reporting)</i> b. Pendahuluan (kesesuaian antara latar belakang, perumusan masalah dan tujuan) <i>Introduction (harmony of background, problem formulation &amp; objectives)</i> c. Tinjauan pustaka (kelengkapan teori yang dipakai & studi literatur) <i>Literature review (completeness of theory used &amp; literature study)</i> d. Metodologi (langkah-langkah penelitian & ketepatan pemilihan metode terhadap permasalahan) <i>Methodology (research steps &amp; method selection)</i> e. Hasil & pembahasan (results & discussions) f. Kesimpulan & saran <i>Conclusions &amp; recommendations</i> g. Daftar pustaka (bibliography)	40%			
2	<b>PENYAJIAN</b> (Kemampuan berkomunikasi dengan audiens & sistematika penyajian powerpoint) <b>PRESENTATION</b> (ability to communicate with the audience & systematic of presentation slides)	30%			
3	<b>KEMAMPUAN MENJAWAB PERTANYAAN</b> <b>ABILITY TO ANSWER QUESTIONS</b>	30%			
<b>SKOR TOTAL/ TOTAL SCORE</b>		100%			
Saran hasil seminar /Recommendation of Seminar result:			Surabaya ,....., 201... Dosen Penguji/Assessors  (.....) NIP. ....		
<small>Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</small>					
<small>Form P-2 adalah penilaian seminar TA oleh tim asesor/Form P-2 is the assessment of FP seminar by team of assessors</small>					
P-1	P-2 P-2A,P-2B	✓	P-3A P-3	P-4 P-4A	P-5
Form Validasi Final Project FP Validation Form	Form Seminar TA FP Seminar Form	Form Perbaikan Makalah TA Improvement FP Papers Form	Form Ujian TA FP Exam Form	Form Perbaikan Laporan TA Improvement FP Report Form	

## Attachment 9. Proof of Attendance for Assessors and Students

	<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			<b>P-2A</b>
	Bukti Kehadiran student & assessor Seminar Final Project <i>Evidence of Final Project Seminar Attendance</i>			
TA-S1-12	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822/ (0/0/6)	Page :39 of 72

Nama mahasiswa /Student name : .....			
NRP/Identity Number : .....			
DAFTAR HADIR PENGUJI SEMINAR FINAL PROJECT <i>ATTENDANCE LIST OF ASSESSOR IN FINAL PROJECT SEMINAR</i>			
Hari,tanggal,jam/Day,date,time : .....			
Ruang /Room : .....			
No	NIP	Nama dosen Penguji /Assessors	Tanda Tangan /Signature
1			
2			
3			
Tanda Tangan mahasiswa/ Student Signature :			


DAFTAR HADIR PENGUJI DALAM UJIAN FINAL PROJECT <i>ATTENDANCE LIST OF ASSESSORS IN FINAL PROJECT EXAM</i>			
Hari,tanggal,jam/Day,date,time : .....			
Ruang /Room : .....			
No	NIP	Nama dosen Penguji /Assessors	Tanda Tangan /Signature
1			
2			
3			
Tanda Tangan mahasiswa/ Student Signature :			

Form P-2A adalah bukti bahwa mahasiswa telah hadir seminar TA, yang merupakan proses ke dua dari 5 langkah pada fase Presentasi hasil TA. Serahkan Formulir ini ke unit Administrasi untuk melengkapi bukti bahwa mahasiswa telah mengikuti semua proses TA  
P-2A Form is evidence that the student has attended FP seminars, which is the second of five steps completion of FP. Submit this form to the administrative unit as an evidence that the student has attended all of the FP activities.

Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5.  
In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.

P-1		<b>P-2A,</b> P-2, P-2B	✓	P-3A P-3		P-4 P-4A		P-5									
Form Validasi Final Project <i>FP Validation Form</i>		Form Seminar TA <i>FP Seminar Form</i>		Form Perbaikan Makalah TA <i>Improvement FP Papers</i>		Form Ujian TA <i>FP Exam Form</i>		Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>									
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	<b>P2A</b>	P2B	P3	P3A	P4	P4A	P5

## Attachment 10. Proof of Attendance for Seminar Participant

	<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i> <b>Bukti Kehadiran Peserta Seminar Final Project</b> <i>Evidence Of Final Project Seminar Participants Attendance</i>				<b>P-2B</b>												
TA-S1-13	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :40 of 72													
Nama mahasiswa /Student Name : ..... NRP/ Student Number : ..... Hari, tanggal, jam/Day, date, time : ..... Ruang /Room : .....																	
No	NRP / SN	Nama Peserta seminar Seminar Participant Name	Tanda Tangan Signature														
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the final project activity consists of two phases: pre-presentation phase and the phase of presentation of the TA. Pre phase TA presentation consists of 5 stages and these five steps recorded by the form of PP-1 to PP-5.</i>																	
Form P-2B adalah bukti bahwa presentasi Seminar TA dihadiri oleh peserta mahasiswa. Form ini adalah bukti mahasiswa telah mengikuti proses ke dua dari 5 langkah pada fase Presentasi hasil TA. Serahkan Formulir ini ke unit Administrasi untuk melengkapi bukti mahasiswa telah mengikuti semua proses TA. <i>Form P-2B is evidence that TA seminar presentation was attended by the student participants. This form is proof of the students have to follow the process to two of the five steps in the phase of presentation of the TA. Submit this form to the administrative unit to complete the proof of the students have to follow all of the TA.</i>																	
P-1	P-2B, P-2, P-2A	✓	P-3	P-4 P-4A	P-5												
<b>Form Validasi Final Project</b> <i>Final Project Validation</i>		<b>Form Seminar TA</b> <i>FP Seminar</i>		<b>Form Perbaikan Makalah TA</b> <i>Improvement FP Papers</i>													
<b>Form Ujian TA</b> <i>FP Exam Form</i>		<b>Form Perbaikan Laporan TA</b> <i>Improvement FP Report Form</i>															
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	<b>P2B</b>	P3	P3A	P4	P4A	P5
Jika peserta lebih dari 20 harap minta pada moderator untuk menambah formulir P-2B/If more than 20 participants please tell the moderator to add PP-3A form																	


## Attachment 11. Report for Paper Improvement

	<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			<b>P-3</b>
	Berita Acara Perbaikan Makalah Final Project <i>Improvements Final Project Papers Evidence</i>			
TA-S1-14	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :41 of 72

Nama mahasiswa /Student name : NRP/Identity Number :																	
No	Dosen Penguji Asssors			Materi makalah Yang diperbaiki <i>Papers Content Improvement</i>						TT Penguji <i>Assesors Signature</i>							
1																	
2																	
3																	
4																	
Surabaya,....., 201...																	
Pembimbing Utama / Main Supervisor							Co Pembimbing / Co Supervisor										
( NIP. ( ) )							( NIP. ( ) )										
Secara umum kegiatan TA terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the FP activity consists of two phases: pre-presentation phase and FP presentation phase. Pre presentation FP phase consists five steps that recorded by the form of PP-1 to PP-5.</i>																	
Form P-3 adalah bukti bahwa mahasiswa telah memperbaiki makalah TA, berarti mahasiswa telah melakukan proses ke 3 dari 5 langkah pada fase Presentasi TA. Serahkan Formulir ini ke unit Administrasi untuk melengkapi semua bukti penyelesaian TA <i>P-3 Form is evidence that the student has improved FP papers, it means that the student have passed third process of the 5 steps in the FP presentation phase. Submit this form to the administrative unit to complete all the evidence of the completion of the FP activities.</i>																	
P-1		P-2 P-2A,P-2B		<b>P-3</b> P-3A	✓	P-4 P-4A		P-5									
Form Validasi Final Project <i>FP Validation Form</i>			Form Seminar TA <i>FP Seminar Form</i>			Form Perbaikan Makalah TA <i>Improvement FP Papers</i>			Form Ujian TA <i>FP Exam Form</i>			Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>					
18 Dokumen yang diperlukan dalam kegiatan TA adalah /18 Documents required in the FP activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	<b>P3</b>	P3A	P4	P4A	P5



## Attachment 12. Final Project Paper Review by POMITS

	<b>PROGRAM STUDI S1 STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i> Review Makalah TA versi POMITS <i>Papers Review of POMITS version</i>			<b>P-3A</b>
	TA-S1-15	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)

Nama mahasiswa /Student name : \_\_\_\_\_  
 NRP/Identity Number : 0621

**A. Style and Arrangement (put a cross in the box provided)**

1	Does the title is in conformity with the contents of the article?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2	Does the abstract has given the important points?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3	What is the methodology used appropriate?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4	Does the data that is displayed correctly and accurately?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5	Are the tables and images in accordance with the requirements?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6	Is the description of tables and figures appropriate?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
7	Are the conclusions complete and clear	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
8	Is the latest and libraries used to support	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
9	Is written article with a straight forward and clear	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
10	Is the writing in keeping with <i>selingkung</i> POMITS style?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

<p><b>B. Quality Assessment Article</b> (fill in the box selected, with a cross)</p> <p><input type="checkbox"/> Not plagiarizing the work of others.</p> <p><input type="checkbox"/> Not use illegal software</p> <p><input type="checkbox"/> Not planned for patented</p> <p><input type="checkbox"/> Does not violate an agreement with a third party</p>	<p><b>C. Recommendations</b> (fill in the box selected, with a cross)</p> <p><input type="checkbox"/> unpublished</p> <p><input type="checkbox"/> published after repair</p> <p><input type="checkbox"/> published</p> <p>pada: Jurnal Teknik <input type="checkbox"/></p> <p>Jurnal Sains dan Seni <input type="checkbox"/></p> <p>Bidang : .....</p>
--	--

**D. Notes or Comments Reviewers :**

Reviewer- 1 (Supervisor)  (.....) NIP. ....	Reviewer- 2 (Co-Supervisor)  (.....) NIP. ....
--	---

Form P-3A merupakan bukti bahwa mahasiswa telah memperbaiki makalah berdasarkan review POMITS. Serahkan Formulir ini ke unit Administrasi bersama dengan makalah. Soft copy makalah yang sudah diperbaiki di email ke unit Administrasi untuk di upload ke jurnal elektronika ITS.  
 Form P-3A is evidence that the student has improved paper based on the reviews POMITS. Submit this form to the administrative units along with the paper. Please Sent a repaired Soft copy to the administrative units in order to be uploaded to the electronic journal ITS.

Secara umum kegiatan TA terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. In general the FP activity consists of two phases: pre-presentation phase and the phase of presentation. Pre phase FP presentation consists of 5 stages and these five steps recorded by PP-1 to PP-5 form.

P-1	P-2 P-2A,P-2B	P-3A P-3	✓	P-4 P-4A	P-5
Form Validasi Final Project <i>FP Validation form</i>	Form Seminar TA <i>FP Seminar form</i>	Form Perbaikan Makalah TA <i>Improvement FP Papers</i>		Form Ujian TA <i>FP Exam Form</i>	Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>


18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :

T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	P5
----	----	----	-----	-----	-----	------	-----	-----	----	----	-----	-----	----	-----	----	-----	----






## Attachment 13. Final Project Examination Scoring Form


	<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>				<b>P-4</b>												
	Form Penilaian Ujian Final Project <i>Final Project Exam Form</i>																
TA-S1-16	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822 / (0/0/6)	Page :43 of 72													
Nama mahasiswa /Student name : ..... NRP/Identity Number : ..... Hari,tanggal,jam/Day,date,time : ..... Ruang /Room : .....																	
No	KOMPONEN PENILAIAN / Assessment Component	BOBOT Weight	SKOR /SCORE (1-100)	NILAI / VALUE (bobot x skor)													
<b>1</b>	<b>PENILAIAN PENULISAN LAPORAN / REPORT WRITING ASSESSMENT</b>																
	h.	Format & tata bahasa (gaya penulisan selingkung) <i>Format &amp; grammar (stylebook – a guide for grammar, punctuation, principles &amp; practices of reporting)</i>	10%														
	i.	Pendahuluan (kesesuaian antara latar belakang, perumusan masalah dan tujuan) <i>Introduction (harmony of background, problem formulation &amp; objectives)</i>	10%														
	j.	Tinjauan pustaka (kelengkapan teori yang dipakai & studi literatur) <i>Literature review (completeness of theory used &amp; literature study)</i>	25%														
	k.	Metodologi (langkah-langkah penelitian & ketepatan pemilihan metode terhadap permasalahan) <i>Methodology (research steps &amp; method selection)</i>	15%														
	l.	Hasil & pembahasan (results & discussions)	30%														
	m.	Kesimpulan & saran (Conclusions & recommendations)	10%														
<b>Jumlah Skor / Total score</b>			100%														
<b>2</b>	<b>UJIAN LISAN/ ORAL EXAMINATION</b>																
	a.	Ketepatan metodologi / <i>appropriateness of method</i>	25%														
	b.	Sikap & performa / <i>attitude &amp; performance</i>	25%														
	c.	Kemampuan menjawab pertanyaan <i>Ability to answer questions</i>	50%														
<b>Jumlah Skor / Total score</b>			100%														
Catatan hasil ujian TA/Comments of Final Project exam:				Surabaya, ....., 201... Dosen Penguji/Assessors  (.....) NIP. ....													
<b>Form P-4 adalah bukti bahwa mahasiswa telah mengikuti ujian TA, yang merupakan proses ke 4 dari 5 langkah pada fase Presentasi TA. Formulir ini diserahkan ke ketua sidang Ujian dan di arsip di unit Administrat.</b> <b>P-4 Form is evidence that the student has taken FP exam, which is the fourth process of five FP process. This form is submitted to the chairman Exam and archives in the administrative unit.</b>																	
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. In general the FP activity consists two phases: pre-presentation phase and the phase of presentation. Pre phase FP presentation consists of 5 stages and these five steps recorded by PP-1 to PP-5 form.																	
P-1	P-2 P-2A,P-2B	P-3 P-3A	<b>P-4</b> P-4A	✓	P-5												
Form Validasi Final Project <i>FP Validation Form</i>		Form Seminar TA <i>FP Seminar Form</i>		Form Perbaikan Makalah TA <i>Improvement FP Papers</i>													
Form Ujian TA <i>FP Exam Form</i>			Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>														
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	<b>P4</b>	P4A	P5



## Attachment 14. Summary of Final Project Exam and Seminar Score

		<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD-ITS</i> Ragkuman Penilaian Seminar & Ujian Final Project <i>Summary of Assessment Seminar and Final Project Exam</i>						<b>P-4A</b>									
TA-S1-17	Curriculum 2018, December 2018 Ed	Revision Number : 02		Code/sks : KS184822/(0/0/6)		Page :44 of 72											
Nama mahasiswa /Student name : ..... NRP /Identity Number : ..... Hari, tanggal, jam /Day, date, time : ..... Ruang /Room : .....																	
No	KOMPONEN PENILAIAN / (Assessment Component)			BOBOT /Weight	SKOR /SCORE (1-100)	NILAI /VALUE (bobot x skor)											
1	Pembimbingan / Supervising																
a	Pembimbing/Supervisor *			100%													
b	1. Pembimbing Utama/The main Supervisor			60%													
	2. Pembimbing ke-dua/ Second Supervisor			40%													
Skor Pembimbingan/ Supervising score																	
No	Komponen Penilaian (Assessment component)	Penguji 1 Assessor 1	Penguji 2 Assessor 2	Penguji 1 Assessor 3	Penguji 1 Assessor 4	Rata-rata average	Bobot Weight	Skor Score									
1	Pembimbingan /Supervising						20%										
2	Seminar Final Project Final Project Seminar						25%										
3	Laporan/Reports						15%										
4	Ujian Lisan Oral Examination						40%										
Jumlah Skor /Total score																	
Nilai dalam Huruf/ Grades in Letter																	
Berita Acara Ujian /Comments of FP exam :																	
Surabaya,....., 201... Menyetujui/Approve				Tim Penguji/ Assessors Team			Tanda Tangan Signature										
Ketua Sidang FP exam chairman	Pembimbing / Supervi- sor-1	Co Pembimbing / Supervisor -2		1.													
				2.													
				3.													
				4.													
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase. Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. In general the FP activity consists of two phases: pre-presentation phase and the phase of presentation. Pre phase FP presentation consists of 5 stages and these five steps recorded by PP-1 to PP-5 form.																	
P-1		P-2 P-2A, P-2B		P-3		P-4 <b>P-4A</b>	✓	P-5									
Form Validasi Final Project FP Validation Form		Form Seminar TA FP Seminar Form		Form Perbaikan Makalah TA Improvement FP Papers		Form Ujian TA FP Exam Form		Form Perbaikan Laporan TA Improvement FP Report Form									
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3 A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	<b>P4A</b>	P5

## Attachment 15. Report of Final Project Report Improvement

	<b>PROGRAM STUDI SI STATISTIKA FSAD-ITS</b> <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			<b>P-5</b>
	Berita Acara Perbaikan Laporan Final Project <i>Improvements Final Project Report Evidence</i>			
TA-S1-18	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184822/(0/0/6)	Page :45 of 72

Nama mahasiswa /Student name : NRP/Identity Number :																	
No	Dosen Penguji Assessors	Komponen laporan Yang diperbaiki <i>Report content improvement</i>						TT Penguji Assesors Sign									
1																	
2																	
3																	
4																	
Surabaya,....., 201  Pembimbing Utama / Main Supervisor  ( NIP. ( ) )					Co Pembimbing / co Supervisor  ( NIP. ( ) )												
<b>Form P- 5 adalah bukti bahwa mahasiswa telah memperbaiki Laporan TA, berarti mahasiswa telah melakukan proses ke 5 dari 5 langkah Penyelesaian TA. Serahkan Formulir ini ke unit Administrasi untuk melengkapi semua bukti penyelesaian TA.</b> <i>Form P-5 are evidence that the student has improved the final report. This means that the student has made the process to Completion of step 5 of 5 FP. Submit this form to the administrative unit to complete all the evidence of the completion of the FP</i>																	
Secara umum kegiatan Final Project terdiri dari 2 fase yaitu : fase pra presentasi dan fase Presentasi hasil TA. Fase pra presentasi TA terdiri dari 5 tahapan dan ke lima tahapan ini di rekam oleh formulir PP-1 sampai PP-5. <i>In general the FP activity consists of two phases: pre-presentation phase and the phase of presentation. Pre phase FP presentation consists of 5 stages and these five steps is recorded by PP-1 to PP-5 form.</i>																	
P-1		P-2 P-2A,P-2B		P-3 P-3A		P-4 P-4A		<b>P-5</b>	✓								
Form Validasi Final Project <i>FP Validation Form</i>		Form Seminar TA <i>FP Seminar Form</i>		Form Perbaikan Makalah TA <i>Improvement FP Papers</i>		Form Ujian TA <i>FP Exam Form</i>		Form Perbaikan Laporan TA <i>Improvement FP Report Form</i>									
18 Dokumen yang diperlukan dalam kegiatan Final Project adalah /18 Documents required in the final project activities are :																	
T1	T2	T3	PP1	PP2	PP3	PP3A	PP4	PP5	P1	P2	P2A	P2B	P3	P3A	P4	P4A	<b>P5</b>

**Attachment 16. Front Cover Example**

FINAL PROJECT - KS184822

**PERBANDINGAN *SUPPORT VECTOR MACHINE* DAN  
*LEAST SQUARE SUPPORT VECTOR MACHINE*  
UNTUK KLASIFIKASI *ICTAL* DAN *INTERICTAL*  
BERDASARKAN DATA REKAMAN EEG PASIEN EPILEPSI  
DI RUMAH SAKIT UNIVERSITAS AIRLANGGA**

**TRIAJENG NURAI SYAH  
NRP 062115 4000 0080**

**Dosen Pembimbing  
Dr. Santi Wulan Purnami, M.Si  
Wardah Rahmatul Islamiyah, dr. Sp.S**

**PROGRAM STUDI SARJANA  
DEPARTEMEN STATISTIKA  
FAKULTAS SAINS DAN ANALITIKA DATA  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
SURABAYA 2019**

## Attachment 17. Inner Cover Example



FINAL PROJECT - KS184822

# **PERBANDINGAN *SUPPORT VECTOR MACHINE* DAN *LEAST SQUARE SUPPORT VECTOR MACHINE* UNTUK KLASIFIKASI *ICTAL* DAN *INTERICTAL* BERDASARKAN DATA REKAMAN EEG PASIEN EPILEPSI DI RUMAH SAKIT UNIVERSITAS AIRLANGGA**

**TRIAJENG NURAI SYAH  
NRP 062115 4000 0080**

**Dosen Pembimbing  
Dr. Santi Wulan Purnami, M.Si**

**PROGRAM STUDI SARJANA  
DEPARTEMEN STATISTIKA  
FAKULTAS SAINS DAN ANALITIKA DATA  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
SURABAYA 2019**



**Attachment 18. Cover in English Example**



**FINAL PROJECT - KS184822**

**COMPARISON OF SUPPORT VECTOR MACHINE AND  
LEAST SQUARE SUPPORT VECTOR MACHINE  
TO CLASSIFY ICTAL AND INTERICTAL BASED ON  
EEG RECORDING DATA OF EPILEPTIC PATIENTS  
IN RUMAH SAKIT UNIVERSITAS AIRLANGGA**

**TRIAJENG NURAI SYAH  
SN 062114 4000 0080**

**Supervisor  
Dr. Santi Wulan Purnami, M.Si**

**UNDERGRADUATE PROGRAMME  
DEPARTMENT OF STATISTICS  
FACULTY OF SCIENCE AND DATA ANALYSIS  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
SURABAYA 2019**



**Attachment 19. Approvement Page Example**

**LEMBAR PENGESAHAN**

**PERBANDINGAN *SUPPORT VECTOR MACHINE* DAN  
*LEAST SQUARE SUPPORT VECTOR MACHINE* UNTUK  
KLASIFIKASI *ICTAL* DAN *INTERICTAL* BERDASARKAN  
DATA REKAMAN EEG PASIEN EPILEPSI DI RUMAH  
SAKIT UNIVERSITAS AIRLANGGA**

**FINAL PROJECT**

Diajukan untuk Memenuhi Salah Satu Syarat  
Memperoleh Gelar Sarjana Statistika

pada

Program Studi Sarjana Departemen Statistika  
Fakultas Sains dan Analitika Data  
Institut Teknologi Sepuluh Nopember

Oleh :

**Triajeng Nuraisyah**  
NRP. 062115 4000 0080

Disetujui oleh Pembimbing:

**Dr. Santi Wulan Purnami, M.Si.** ( )

NIP. 19720923 199803 2 001

**Wardah Rahmatul Islamiyah, dr. Sp.S.** ( )

NIP. 19790519 200912 2 003

Mengetahui,

Kepala Departemen Statistika

Stempel  
Departemen

**Dr. Kartika Fithriasari**  
NIP. 19691212 199303 2 002

SURABAYA, JULI 2019

**Attachment 20. Abstract in Indonesia Example**

**PERBANDINGAN *SUPPORT VECTOR MACHINE* DAN  
*LEAST SQUARE SUPPORT VECTOR MACHINE* UNTUK  
KLASIFIKASI *ICTAL* DAN *INTERICTAL* BERDASARKAN  
DATA REKAMAN EEG PASIEN EPILEPSI DI RUMAH  
SAKIT UNIVERSITAS AIRLANGGA**

**Nama Mahasiswa** : Triajeng Nuraisyah  
**NRP** : 062115 4000 0080  
**Departemen** : Statistika  
**Dosen Pembimbing** : Dr. Santi Wulan Purnami, M.Si  
Wardah R. Islamiyah, dr. Sp.S

**Abstrak**

*Epilepsi merupakan penyakit neurologis yang ditandai dengan kejang berulang tanpa alasan. Sekitar 50 juta orang di seluruh dunia menderita epilepsi sehingga epilepsi dianggap sebagai penyakit neurologis paling umum. Proses diagnosis penyakit epilepsi dapat dilakukan melalui electroencephalogram (EEG). Pada perekaman EEG terdapat dua periode yang perlu diperhatikan, yaitu periode ictal (klinis dengan kejang) dan interictal (klinis tanpa kejang). Seringkali pemeriksaan secara visual sinyal EEG melibatkan unsur subyektifitas dan membutuhkan pengalaman. Oleh karena itu, perlu dilakukan deteksi otomatis periode ictal dan interictal dengan metode klasifikasi. Dalam penelitian ini digunakan metode Support Vector Machine (SVM) dan Least Square Support Vector Machine (LS SVM). Sebelum dilakukan klasifikasi, terlebih dahulu dilakukan proses pre-processing dengan metode Discrete Wavelet Transform (DWT). Hasil penelitian menunjukkan klasifikasi dengan metode SVM kernel RBF lebih baik daripada metode LS SVM kernel RBF. Hal ini didasarkan pada performansi klasifikasi SVM kernel RBF yang konsisten baik pada pembagian data menggunakan metode 10-fold cross validation atau data pasien 2 sebagai data testing baru.*

**Kata Kunci:** *DWT, EEG, Ictal, Interictal, LS SVM, SVM*





## Attachment 21. Abstract in English Example

### COMPARISON OF SUPPORT VECTOR MACHINE AND LEAST SQUARE SUPPORT VECTOR MACHINE TO CLASSIFY ICTAL AND INTERICTAL BASED ON EEG RECORDING DATA OF EPILEPTIC PATIENTS IN RUMAH SAKIT UNIVERSITAS AIRLANGGA

**Name** : Triajeng Nuraisyah  
**Student Number** : 062115 4000 0080  
**Department** : Statistics  
**Supervisor** : Dr. Santi Wulan Purnami, M.Si  
Wardah R. Islamiyah, dr. Sp.S

#### Abstract

*Epilepsy is a neurological disease characterized by recurrent seizures without reason. About 50 millions people worldwide suffer from epilepsy. It makes epilepsy become one of the most common neurological diseases globally. The process of diagnosing epilepsy can be done through electroencephalogram (EEG). There are two periods that need to be considered in EEG, such as ictal and interictal. Visual inspection of EEG signals often involves subjectivity and needs experiences. Therefore, it is necessary to do automatic detection about ictal and interictal using classification method. In this study, Support Vector Machine (SVM) and Least Square Support Vector Machine (LS SVM) classifier is used. Before classify EEG signals, pre-processing data is firstly done, using Discrete Wavelet Transform (DWT). The classification result shows that SVM RBF is better than LS SVM RBF. It is based on the consistency of the SVM RBF's performance while using 10-fold cross validation or data of patient 2 as new testing data.*

**Keywords:** DWT, EEG, Ictal, Interictal, LS SVM, SVM

**Attachment 22. Author Bio Example**

PENULIS DILAHIRKAN DI Madiun, 29 Januari 1985, merupakan anak pertama dari 4 bersaudara. Penulis telah menempuh pendidikan formal yaitu TK ABA 18 Madiun, SDN Benteng 1 Madiun, SMPN 2 Madiun dan SMAN 2 Madiun. Setelah lulus dari SAMAN tahun 202, Penulis mengikuti SBMPTN dan diterima di Departemen Statistika FSAD-ITS pada tahun 2013 dan terdaftar dengan NRP 06211540000080. Selanjutnya menceritakan pengalaman selama kuliah baik dalam kegiatan akademik maupun non akademik.



## Attachment 23. Judicial Requirement Check List

Genap 18/19 – Periode 120 **S1-Reg / LJ\*\***

Tulis Nama dan NRP dalam HURUF KAPITAL

### Cek List Persyaratan Yudisium S1 (Diisi Oleh Petugas)

Nama : ..... NRP : 0621.....

No	Berkas	Keterangan / Syarat	Cek		
			Ada	Keterangan	
1.	Blanko Bebas – Bebas Tanggungan				
	Blanko Pengumpulan Buku TA di Pembimbing	Hardcopy / Softcopy**			
	Blanko Perbaikan Tugas Akhir (P5)				
	Blanko Perbaikan Makalah (P3)				
2.	Mengumpulkan Transkrip terbaru dengan Nilai TA				
3.	Mengumpulkan Surat bebas	Bebas Perpus ITS			
		Bukti Pengumpulan Buku KP - RBS			
		Bukti Pengumpulan Buku KP – Perpus ITS			
		Bukti Pengumpulan Buku TA – RBS			
		Bukti Pengumpulan Buku TA – Perpus ITS			
4.	Mengumpulkan HardCopy Form POMITS	Bebas KOPMA (Wajib Untuk Anggota KOPMA)			
		Form P3A (POMITS)			
		Form Transfer Hak Cipta (Hanya Publikasi)			
5.	Upload Ke POMITS	Dipublikasi **	Ya	Tidak	
		Jurnal / Artikel TA (MS. Word)	MS. Word		
		Form Transfer Hak Cipta	PDF		
		Form P3A (POMITS) / Telaah Artikel			
		Form P5 (Revisi Ujian TA)			
Email Softcopy Jurnal POMITS ke TU Akademik S1 <a href="mailto:svafiulumam001@gmail.com">svafiulumam001@gmail.com</a> CC : ( <a href="mailto:antonius.sumitro@gmail.com">antonius.sumitro@gmail.com</a> )			Sudah / Belum		
Format <u>Subject</u> Email dan <u>Nama File</u> <b>POMITS-120-2019-NRP-NAMA Mahasiswa-NAMA LAB-Publikasi/Tidak.doc</b>					
6.	Mengumpulkan Sertifikat TOEFL / Bahasa Asing Lainnya	Ada	Ya	Tidak	
		Nilai			
7.	Mengumpulkan SKEM terbaru, Min 1300 (Hanya Untuk S1 Reguler)	Ada	Ya	Tidak	
		Nilai			
8.	Cetak Update Data Wisudawan, dari integra	a. Nama, Tempat dan Tgl Lahir.	Ya	Tidak	Keterangan
		b. Judul TA.			
		c. Abstrak			
		d. Nama Pembimbing & Co (bila ada).			
9.	Poster Tugas Akhir	Diemailkan ke <a href="mailto:svafiulumam001@gmail.com">svafiulumam001@gmail.com</a> CC : ( <a href="mailto:antonius.sumitro@gmail.com">antonius.sumitro@gmail.com</a> ) , dengan format Subject dan nama file: <b>POSTER-TA-120-NRP-Nama-Lab</b> Poster di set dengan ukuran A2,dalam format (*.JPEG/ *.PUB/ *.CDR / *.PSD)			

\*) Coret Yang Tidak Perlu \*\*) Pilih Salah Satu

NB :

- SKEM harus dicetak oleh Mahasiswa yang bersangkutan.
- Judul TA dan Nama Pembimbing, diisi di integra oleh mahasiswa YBS.

PERIODE - 120



## Attachment 24. Letter of Statement for Company Data

### SURAT KETERANGAN

Saya yang bertanda tangan di bawah ini menerangkan bahwa :

1. Mahasiswa Statistika FSAD-ITS dengan identitas berikut :

Nama : \_\_\_\_\_

NRP : \_\_\_\_\_

Telah mengambil data di instansi/perusahaan kami :

Nama Instansi : \_\_\_\_\_

Divisi/ bagian : \_\_\_\_\_

sejak tanggal \_\_\_\_\_ sampai dengan \_\_\_\_\_ untuk keperluan Final Project/ Thesis Semester Gasal/Genap\* 20\_\_ / 20\_\_.

2. Tidak Keberatan/Keberatan\* nama perusahaan dicantumkan dalam Final Project/ Thesis mahasiswa Statistika yang akan di simpan di Perpustakaan ITS dan dibaca di lingkungan ITS.
3. Tidak Keberatan/Keberatan\* bahwa hasil analisis data dari perusahaan dipublikasikan dalam E journal ITS yaitu Jurnal Sains dan Seni ITS.

(kota), (tanggal)  
Pimpinan Perusahaan  
(sebutkan divisi)

(Nama Lengkap dengan gelar)  
NIP (bila ada)

\*(coret yang tidak perlu)



## Attachment 25. Letter of Statement for Primary Data

### SURAT PERNYATAAN

Saya yang bertanda tangan di bawah ini, mahasiswa Departemen Statistika FSAD ITS:

Nama :

\_\_\_\_\_

NRP :

\_\_\_\_\_

menyatakan bahwa data yang digunakan dalam Final Project/ Thesis ini benar-benar merupakan hasil survey pada responden sebagaimana terlampir.

Surat Pernyataan ini dibuat dengan sebenarnya. Apabila terdapat pemalsuan data, maka saya siap menerima sanksi sesuai aturan yang berlaku.

Mengetahui  
Pembimbing Final Project

Surabaya, (tanggal)

(Nama Lengkap disertai gelar)  
NIP.

(Nama lengkap mhsw)  
NRP.

\*(coret yang tidak perlu)

## Attachment 26. Letter of Statement for Secondary Data

### SURAT PERNYATAAN

Saya yang bertanda tangan di bawah ini, mahasiswa Departemen Statistika FSAD ITS:

Nama : \_\_\_\_\_

NRP : \_\_\_\_\_

menyatakan bahwa data yang digunakan dalam Final Project/ Thesis ini merupakan data sekunder yang diambil dari penelitian / buku/ Final Project/ Thesis/ publikasi lainnya yaitu:

Judul : \_\_\_\_\_

Penulis : \_\_\_\_\_

Surat Pernyataan ini dibuat dengan sebenarnya. Apabila terdapat pemalsuan data maka saya siap menerima sanksi sesuai aturan yang berlaku.

Mengetahui  
Penulis sumber data

Surabaya, (tanggal)

(Nama Lengkap disertai gelar)  
NIP.

(Nama lengkap mhsw)  
NRP.

\*(coret yang tidak perlu)



## Attachment 27. User Survey Questionaire

### KUESIONER TINGKAT KEPUASAN PENGGUNA TERHADAP DEPARTEMEN STATISTIKA ITS

No. Kuesioner : \_\_\_\_\_ Tanggal Survei : \_\_\_\_\_

Kepada Bapak/Ibu, untuk meningkatkan kualitas mahasiswa/i Program Studi Sarjana Departemen Statistika ITS, Kami ingin meminta kesediaan Bapak/Ibu untuk berbagi informasi mengenai performansi mahasiswa/i yang mengambil data untuk Final Project di perusahaan/instansi Anda. Terima kasih untuk waktu dan kerjasamanya.

#### IDENTITAS RESPONDEN

1. Nama :
2. Posisi :
3. No. HP/Email :
4. Nama Perusahaan :
5. Bidang Pekerjaan :
6. Alamat :

#### Staf Penilai

1. Nama :
2. Posisi :

#### PENILAIAN TENTANG PERFORMANSI MAHASISWA/I

**Petunjuk :** Berilah jawaban pada semua pertanyaan dengan cara menuliskan pendapat Anda mengenai mahasiswa/i kami.

Centanglah pada kotak yang disediakan.

Sangat buruk

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5

Sangat baik

No	Kriteria	Skor				
		1	2	3	4	5
1	Integritas mahasiswa/i pada perusahaan					
2	Profesionalisme					
3	Kemampuan kepemimpinan					
4	Kemampuan komunikasi					
5	Kemampuan Bahasa Inggris/asing					
6	Pengetahuan teknologi					
7	Kemampuan kerjasama					
8	Pengembangan diri					
9	Kemampuan adaptasi					
10	Etika saat bekerja					
11	Tanggung jawab					

1. Menurut Bapak/Ibu, apa kelebihan Departemen Statistika ITS ?

.....  
 .....  
 .....

2. Menurut Bapak/Ibu, apa kekurangan Departemen Statistika ITS ?

.....  
 .....  
 .....

3. Saran untuk meningkatkan kualitas departemen/mahasiswa/i.

.....  
 .....  
 .....

