



# FINAL PROJECT GUIDEBOOK

## BACHELOR OF STATISTICS STUDY PROGRAM

2023-2028 Curriculum



DEPARTMENT OF STATISTICS  
FACULTY OF SCIENCE AND DATA ANALYTICS  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

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## FOREWORD

Praise be to God Almighty for His grace and blessings, which have enabled the preparation and completion of this Final Project Guidebook. This guidebook is prepared and presented as a reference for students and the academic community of the Bachelor's Program in Statistics, Department of Statistics, FSAD-ITS, in the implementation and preparation of Final Project reports.

The Final Project Guidebook serves as a source of information for the preparation and implementation of the Final Project. Through this guidebook, students are expected to carry out their Final Project in accordance with the learning outcomes of the courses and graduates as stipulated in the 2023 Curriculum. Practically, this guidebook is expected to serve as a reference for students so that the implementation and completion of the Final Project can be conducted in an orderly and well-organized manner.

On this occasion, our sincere gratitude is extended to the Preparation Team and all parties who have contributed to the completion of this Final Project Guidebook. Hopefully, this guidebook can serve as a useful reference and guideline for all parties involved in the implementation and preparation of Final Project reports within the Bachelor's Program in Statistics, Department of Statistics, FSAD-ITS.

Surabaya, August 2026

Editorial Team  
Bachelor's Program  
Department of Statistics, FSAD-ITS



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## CHAPTER I

### FINAL PROJECT: DEFINITION AND OBJECTIVES

#### 1.1. Definition

The Final Project (FP) or Final Design (FD) is an activity that must be carried out by students of Institut Teknologi Sepuluh Nopember (ITS) in order to complete an Undergraduate or Applied Undergraduate Study Program, the results of which are presented in the form of a FP/FD report. Every student completing their studies in the Undergraduate and Applied Undergraduate Programs is required to prepare a FP/FD report, once they have fulfilled certain requirements. The Final Project (FP) is a course intended to enable students to formulate Statistics-related problems and solve them in one of 5 applied fields: Industry, Economics-Finance, Computation, Social-Demography, and Environment-Health. The Final Project may take the form of research or design.

#### 1.2. Objectives

The objectives of preparing the final/project report are as follows:

- i. Applying logical, critical, systematic, and innovative thinking in the context of developing or implementing science and technology
- ii. Examining the implications of developing or implementing science and technology based on scientific principles, procedures, and ethics
- iii. Identifying and formulating a research problem or design idea based on study results
- iv. Demonstrating independent, high-quality, and measurable performance in carrying out research/design
- v. Producing solutions, ideas, designs, or artistic critique
- vi. Preparing a scientific description of the study results conducted, in the form of a thesis or final project/project report, and



- vii. Presenting and defending the results in the Final Project/Project Examination
- viii. Uploading a summary of the report results to ITS's online publication (POMITS)

### **1.3. Form of the Final Project**

The form of the final project may be research or design/construction. This form of final/project work begins with proposal preparation, implementation, and preparation of the FP/FD report.

#### **1.3.1 Final Project/Design in the Form of Research**

A final project/design in the form of research must contain clarity regarding matters to be investigated (something to be inquired or examined), including:

- a. The object to be studied
- b. The problem to be solved and the objective of the research
- c. A hypothesis that can be proven/tested and examined theoretically or based on factual disclosure, presentation of highly precise data, with results that can be scientifically accounted for
- d. Something that can be formed into a question whose answer is sought

#### **1.3.2 Final Project/Design in the Form of Design**

A final project/design in the form of a complete design/construction for solving a real engineering case must contain clarity on matters to be designed/built, including:

- a. The object to be designed or built
- b. The purpose or benefit of the object to be designed or built
- c. The design or construction methodology
- d. A description of the advantages and disadvantages of the designed/built device
- e. Performance testing of the device and its conformity with the design



#### 1.4. Content/Substance

The output of the FP is the FP report book, so the material/substance of the FP must be contained within the FP report book. Some matters that need to be considered in writing a FP within the environment of the Undergraduate Statistics Study Program, Department of Statistics, are:

- a. The Statistics FP problem contained in the Introduction, in the Background and Problem Formulation subsections. The problem raised must be a *statistical problem* (containing elements of: probability, sampling, estimation, or inferential statistics) that involves *cause and effect* (there must be a controlled experiment), *relationship* (there must be a hypothesized relationship between predictor and response variables), or *association* (for categorical cases).
- b. The FP must generally refer to relevant journals/scientific articles: at least 1 primary journal, i.e., an international journal, which may be a theoretical statistics and/or applied statistics journal. For methodology references, the FP must cite articles published no more than 10 years ago, while references related to case studies are not restricted by year and may refer to textbooks.



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## CHAPTER II

### GENERAL OVERVIEW AND FINAL PROJECT PROCEDURE

#### 2.1 Supporting Documents for the Final Project (FP)

In general, the Final Project (FP) activity for students consists of two main interrelated phases: the proposal preparation phase and the final report preparation phase. The first phase, the FP proposal phase, covers a series of five important stages, each documented in Forms PP-1 through PP-4 as summarized in Table 2.1. These stages cover the initial process of submitting a research idea, appointment of a supervisor, preparation and seminar of the proposal, and revision of the approved proposal. Under certain conditions, if the main supervisor proposes a co-supervisor or examiner from outside the Department of Statistics, the student is required to complete an additional form in the form of a letter of willingness from the external party, which must obtain formal approval from the Head of the Study Program.

The second phase is the implementation and preparation of the FP result report. This phase covers the core activities of the student's final project, including data collection, data analysis, report preparation, up to the results seminar and FP examination. The entire process in this phase is documented through a series of forms listed in Table 2.2. Each form records the progress and administrative completeness required to ensure the student has fulfilled all academic and procedural requirements to be declared as having passed the FP. Thus, these two phases form a structured system that supports the supervision, implementation, and evaluation process of the FP in a transparent and accountable manner.



## FINAL PROJECT GUIDEBOOK

Table 2. 1 Documents in the Final Project Proposal Phase

| No | Description                                                     | Code  | Document Type   |
|----|-----------------------------------------------------------------|-------|-----------------|
| 1  | FP seminar attendance                                           | PP-1  | Activity Record |
| 2  | Proposal supervision                                            | PP-2  | Activity Record |
| 3  | Proposal seminar minutes                                        | PP-3  | Activity Record |
| 4  | Attendance list of student participants in the proposal seminar | PP-3A | Activity Record |
| 5  | Post-seminar proposal revision                                  | PP-4  | Activity Record |

Table 2. 2 Documents in the Final Project Result Report Phase

| No. | Description                                                          | Code | Document Type   |
|-----|----------------------------------------------------------------------|------|-----------------|
| 1   | FP Supervision                                                       | PP-5 | Activity Record |
| 2   | Final Project Validation                                             | P-1  | Activity Record |
| 3   | FP Seminar Assessment                                                | P-2  | Activity Record |
| 4   | Attendance List of Examiners and Students at the FP Seminar and Exam | P-2A | Activity Record |
| 5   | Attendance List of Students as Participants in the Results Seminar   | P-2B | Activity Record |
| 6   | FP Paper Revision Form                                               | P-3  | Activity Record |
| 7   | POMITS Paper Approval                                                | P-3A | Activity Record |
| 8   | FP Exam Grading Form, Filled by Examiner                             | P-4  | Activity Record |
| 9   | FP Grade Recap (Proposal Seminar, Results Seminar, Exam)             | P-4A | Activity Record |
| 10  | FP Report Revision Form                                              | P-5  | Activity Record |

## 2.2 Implementation of Final Project (FP) Learning

One credit (sks) for conducting a final project, thesis, or dissertation is defined as a study load equivalent to 170 minutes. Thus, completing a FP with a load of 6 sks requires 1,020 minutes, or 17 hours per week, and must be completed within a maximum of 16 weeks. This time is used for proposal preparation, proposal seminar, proposal revision, data collection, data entry and analysis, and preparation of the FP report draft and paper — including consultation with the supervisor, seminar, exam, and revisions of both. The estimated time for completing each of these components can be seen in Table 2.3.



Table 2. 3 Description of Time Allocation for FP Completion

| No.                             | Activity                               | Duration (Weeks) |                      |
|---------------------------------|----------------------------------------|------------------|----------------------|
| 1                               | Proposal Preparation                   | 3                | Phase 1:<br>5 weeks  |
| 2                               | Proposal Seminar and Revision          | 2                |                      |
| 3                               | Data Collection                        | 4                |                      |
| 4                               | Data Entry                             | 1.5              | Phase 2:<br>11 weeks |
| 5                               | Data Analysis                          | 1.5              |                      |
| 6                               | Writing the FP Report and Paper        | 2                |                      |
| 7                               | Results Seminar, FP Exam, and Revision | 2                |                      |
| <b>Total FP Completion Time</b> |                                        | 16 weeks         | 16 weeks             |

## 2.3 Standard Operating Procedure for the FP

### Final Project Supervision:

1. Students choose FP supervisors in order of priority — first, second, and third choice. This selection period takes place in week 20, or four weeks after the even semester ends.
2. The Study Program (Prodi) distributes FP participant students and their first supervisor based on the students' choices, supervision quota, **and** other academic considerations. Note that no lecturer may supervise more than 7 active FP students (as main supervisor) at one time.
3. The appointment of a co-supervisor must be made known to the main supervisor and requires approval from the Head of the Study Program.
4. **[Proposal]** Requirements for registering for the proposal exam are regulated in this guide; among these requirements is a minimum of three supervision sessions with each supervisor.
5. **[Result Report]** Requirements for registering for the results seminar and exam are regulated in this guide; among these requirements is a minimum of five supervision sessions if there is only one main supervisor, or three sessions each for the main supervisor and co-supervisor.
6. If the FP process exceeds two semesters, the student must restart the FP process, including changing the title and supervisor.



## 2.4 Final Project Procedure

Based on the provisions above, for ease of reference, the FP procedure is as follows:

### I. FINAL PROJECT SOCIALIZATION

1. (Some) FP topics offered by lecturers are available on myITS Thesis.
2. The Head of the Study Program socializes the administrative FP procedure at the end of the even semester, or in week 18.

### II. DISTRIBUTION OF FINAL PROJECT SUPERVISORS

1. Students select candidate supervisors in week 20, or mid-July, for either the even or odd semester FP period.
2. The Study Program, together with the Heads of Laboratories, determines the distribution of supervisors.
3. If a FP topic requires a co-supervisor from the Department of Statistics, this must be made known to the main supervisor and approved by the Head of the Study Program.
4. The distribution of supervisors is carried out in each laboratory, based on:
  - a. Suitability of the lecturer's competence.
  - b. Student's choice. Students are given the opportunity to choose, but if a lecturer has reached full capacity, the Kaprodi will transfer the student to another lecturer.
  - c. Proportionality — meaning a proportional ratio between the number of students and the number of lecturers in the laboratory. As of the writing of this guide, the upper limit of each lecturer's supervision quota is 7 students.
  - d. Other academic considerations.
5. The announcement of supervisor distribution is published approximately three weeks after students make their supervisor selection.

### III. FINAL PROJECT REGISTRATION

Final project registration consists of two stages: 1) the student takes the FP course in the FRS (Study Plan Card) for the relevant semester, and 2) registers for the FP proposal seminar.

1. Taking the FP course in the FRS for the even or odd semester.
2. FP registration is considered complete once the student registers for the proposal seminar (see Section V).



#### **IV. PREPARATION OF THE FINAL PROJECT PROPOSAL**

1. Preparation of the proposal together with the supervisor(s) is carried out within a maximum of three weeks.
2. The FP proposal draft must at least cover the background of the problem, objectives, and methodology used. (See the ITS Final Report Preparation Guidelines)
3. Each time proposal supervision is conducted, the student must bring Form PP-2 to be signed by the supervisor as proof that supervision has taken place.

#### **V. PROPOSAL SEMINAR**

1. Students register for the FP proposal seminar via the following link: <https://its.id/DaftarSemproTA> and prepare printed versions of the required documents.
2. The documents that must be prepared for upload, printed, and submitted to the S1 STAT academic admin include:
  - a. Proof of having attended FP seminars during the relevant period.
  - b. Proposal draft (printed, 3 or 4 copies).
  - c. Form of proof of attendance at TA S1 result seminars, at least for ten seminars (Form PP-1).
  - d. Proposal supervision form (PP-2) signed by the supervisor(s). For each supervisor, proposal supervision must have been conducted at least three times.
  - e. Transcript issued for the previous semester.
  - f. Foreign language certificate in accordance with academic regulations. At this stage, students may register for the FP proposal seminar even if their foreign language score does not yet meet the passing requirement.
3. The Study Program creates a schedule for the FP proposal seminar for registered students, and announces it to students, supervisors, and examiners.
4. Conducting the proposal seminar:
  - a. The FP proposal seminar must be attended by at least 10 student audience members.



- b. The FP proposal seminar is held over a duration of 60 minutes, consisting of: 15 minutes proposal presentation, 20 minutes Q&A with the student audience, and 25 minutes Q&A with the panel of lecturers (supervisors and examiners).
5. After the proposal seminar, the student is given the opportunity to revise the FP proposal according to the discussion held during the seminar, documented using Form PP-3. The proposal revision process includes:
  - a. The student discusses with the supervisor(s). The results of the discussion and revisions are recorded and signed by the supervisor(s) on Form PP-3.
  - b. The student submits the revision results to the examiners. The discussion and revision results approved by the examiners are recorded and signed by the examiners on Form PP-3.
  - c. The student completes Form PP-3 by obtaining the signature(s) of the supervisor(s).
  - d. The revised FP proposal and Form PP-3 are submitted online via the link <https://its.id/DaftarYudisiumDepStatsS1> (the academic admin does not accept printed versions).
6. The duration for revising the FP proposal is two weeks from the date of the proposal seminar. If within one semester the student fails to submit the revised proposal, they must repeat the proposal seminar in the following semester.
7. **[Revised proposal approval sheet]** The FP proposal approval sheet does not need to be signed by the supervisor(s) or examiners.

## VI. **FINAL PROJECT SUPERVISION PROCESS**

1. The FP supervision process lasts approximately 11 weeks. The supervision process covers data collection, data analysis, and the procedures for writing the FP report and paper in the format of the ITS Journal of Science and Art (Jurnal Sains dan Seni ITS).



2. During the supervision process, students must bring Form PP-4 as proof of having conducted supervision. The minimum number of supervision sessions is five for one supervisor, or three each for two supervisors.

## **VII. RESULTS SEMINAR AND FINAL PROJECT EXAMINATION**

1. Students register for the results seminar and FP exam by preparing the following documents:
  - a. Foreign language certificate in accordance with academic regulations for the graduation requirement. For example, a minimum TOEFL score of 477. This document is an absolute requirement for students to be able to hold the results seminar and TA exam. Foreign language requirements that may fulfill this are regulated under the 2023 ITS Academic Regulations.
  - b. FP report and paper draft, in the following quantities:
    - 3 copies each if there is only one supervisor.
    - 4 copies each if there is a co-supervisor.
  - c. FP results seminar paper in the format of Jurnal Sains dan Seni ITS. The paper format can be downloaded here: <https://its.id/POMITS-templat>.
  - d. Supervision proof form (Form PP-5).
  - e. Proof of SKEM score, i.e., the score indicating the student has participated in extracurricular activities, including the mandatory sports SKEM. Based on the 2023 ITS Academic Regulations, the minimum SKEM GPA required for graduation in the Bachelor program is 2.1.
2. After registering for the seminar and FP exam, students will go through the following 5 steps:
  - a. **VALIDATION PROCESS**
    - i. The validation team consists of the first examiner (session chair).
    - ii. Validation is carried out no later than H-1 (one day before) the FP results seminar.



- iii. Validation includes the validator's process of checking the feasibility of data acquisition and its processing. If a survey was conducted:
  - Ensure there is a questionnaire, call-back minutes, and measurement of the questionnaire's validity and reliability.
  - Check evidence: photos or documentation.
  - Protocols/guidelines: sampling method, random sampling method.
  - If data was obtained from an institution: there must be legal documentation from the company (checking the permit letter to obtain data from the institution).
  - If data was obtained from a hospital, clinic, or similar: there must be an ethical clearance letter.
- iv. Validation includes the validator's process of checking the conformity of computer output results with the data in the discussion section.
- v. Validation includes the validator's process of checking the correctness of the data processing procedure.
- vi. The validator does not need to check the consistency of the method (between the proposal and the exam).
- vii. The validator provides notes and recommendations on Form P-1.
- viii. If recommended to proceed to the results seminar, the student requests the supervisor's signature on Form P-1.
- ix. The student submits Form P-1 to the S1 academic admin to complete the results seminar and exam documents.
- x. **[In writing the FP report]** English language validation is carried out by the supervisor.

#### **b. FINAL PROJECT SEMINAR**

Students conduct an open FP presentation in front of the examining panel and at least 10 students in attendance. Students presenting their FP must wear formal attire,



consisting of black bottoms, a white formal top, and an almamater jacket. If wearing a hijab, students are advised to wear a black hijab. The final project seminar is conducted for approximately 45 minutes. The examiner assesses the student using Form P-2.

**c. FINAL PROJECT EXAMINATION**

After the final project seminar is conducted, students undergo a closed oral examination. The examining panel assesses the student's performance using Form P-4. The final project exam is conducted for 60 minutes.

**d. PAPER REVISION**

After the FP seminar, students must revise the paper according to the suggestions of examiners and supervisors given during the presentation session. Students must submit the paper revision form (Form P-3 and P-3A) and the revised paper through the S1 STAT academic admin.

**e. FP REPORT REVISION**

Students must revise the FP report immediately after the exam, within a duration of approximately 2 weeks. During the report revision, students carry Form P-5. Proof of FP report revision (Form P-5) is submitted through the academic admin. The finalized FP report is signed by the Head of the Department, countersigned by the Head of the Study Program. The final FP report and paper must be submitted to the ITS library (physical printed copy) and to the Study Program (online).

**f. GRADUATION COMPLETENESS CHECKLIST**

Students must complete the required documents for graduation (yudisium), such as: the library clearance form, FP revision form, paper revision form, updated transcript with the FP grade, clearance letter, TOEFL certificate, updated SKEM score, poster, and uploading the journal/article to POMITS.



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## CHAPTER III

### FINAL PROJECT PROPOSAL

The FP proposal is compiled in 15 (fifteen) to 20 (twenty) pages, consisting of the preliminary section and the content section. The Final Project/Design Proposal must be prepared realistically, comprehensively, and in detail.

#### 3.1. Preliminary Section of the Final Project Proposal

The preliminary section of the final project proposal is given page numbers using Roman numerals, i.e., i, ii, iii, and so on. The preliminary section of the final/project proposal consists of:

##### a. Cover Page

As the very first page read in a proposal, the Cover Page must provide brief, clear, and unambiguous information to the reader about the content of the proposal, namely: the title, type of Final Project/Design (research/design), the student's name and NRP (student ID number), institution, city where the institution is located, and year.

The front cover page contains: the text "FINAL PROJECT/PROJECT PROPOSAL," the title of the Final Project/Design Proposal, the ITS logo, the author's name with student ID number (NRP), the name of the study program, the name of the department, the name of the faculty, the name of the institution (written in full using capital letters INSTITUT TEKNOLOGI SEPULUH NOPEMBER), the city name (Surabaya), and the year of creation.

The title of the Final Project/Design Proposal must be typed entirely in capital letters and may not be abbreviated, except for standard/established abbreviations. The author's name must be written in capital letters and not abbreviated.

The name of the study program is written as 'Program Studi Sarjana Statistika' and in English as 'Bachelor Program of Statistics'. **An example of a final project proposal cover page can be found in Appendix 1.**



b. Approval Page

The Approval Page is placed on the page following the cover page. The Approval Page contains: the text "APPROVAL SHEET," the title of the Final Project/Design Proposal, the Student's Name, Student ID Number (NRP), the purpose for which FP/FD is submitted, approval from the prospective supervisor and/or co-supervisor, the name of the prospective supervisor and/or co-supervisor, the city, month, and year of approval.

The approval page of the FP/FD proposal contains information stating that the FP/FD proposal has been approved or has undergone review by the prospective supervisor and/or co-supervisor, or has been revised in accordance with the direction of the prospective supervisor and/or co-supervisor, and/or the proposal assessment team. **The format of the final/project proposal approval page can be found in Appendix 2.**

c. Summary/Abstract (in Indonesian and English)

The summary/abstract page contains a brief description of what will be carried out during the implementation of the final/project work. This brief description or abstract must contain 200–300 words, describing what will be carried out during the implementation of the Final Project/Design. It is a summary of the research plan/design plan, answering the questions of what, why, and how the research/design will be carried out. **Examples of the Abstract or brief description in Indonesian and English can be found in Appendices 3 and 4, respectively.**

d. Table of Contents/List of Figures/List of Tables

The Table of Contents contains all sections of the document along with their respective page numbers, written consistent with the actual content. The Table of Contents/List of Figures/Tables can be printed automatically using Microsoft Word by properly configuring the "Heading" feature, so that students do not need to type them one by one manually,



following the order of chapters or subchapters, figures, or tables. In the Table of Contents section, the author informs the outline of chapters and subchapters that will fill the pages of the FP/FD. Provisions regarding the writing of the Table of Contents can be found in subchapter 4.X.

### 3.2. Content Section of the Final Project Proposal

Page numbering in the content section of the proposal uses Arabic numerals, i.e., 1, 2, 3, and so on. The division of chapters from the introduction to the methodology is determined by the faculty according to need, or follows the systematic structure below.

#### a. Introduction

The Introduction contains the matters that motivate or form the background for the importance of conducting the research. A description of research in this field is very important toward improving or resolving a problem, or producing a design. The components in this chapter are:

##### 1. Background

Every research proposed for the Final Project must have a background to the (actual/current) problem that genuinely requires resolution. The background of the problem must be described clearly, supported as much as possible by prior study results or secondary data.

##### 2. Problem Formulation

The research/design problem must be written in declarative form or as clear and firm question sentences. The research/design problem is a formulation of the gap between the existing condition and the condition to be achieved. The problem formulation is carried out based on the identification of the problem and the scope of the research to be solved, or the scope of the object to be designed. This problem formulation is expressed in the form of a question that will later be answered within the problem analysis, using relevant theory or concepts and supported by data during the implementation of the research/design to be conducted. In formulating the problem, it is necessary to



avoid raising too many questions — meaning that the problem formulation should not be written as an excessively large number of questions.

Several study programs may add a research/design hypothesis component. A hypothesis is essentially a tentative answer or solution to the problem raised in the FP/FD problem formulation. A research/design hypothesis may be considered necessary for certain research/design work of a specific nature.

### 3. Problem Limitation/Scope

The scope/limitation of the problem serves to focus the research/design to be conducted so that it becomes more directed. Limitations can be made in terms of breadth, depth, the researcher's/designer's capability in a particular aspect, or all of these aspects. Limitations must be accompanied by reasons or arguments as to why the problem limitation is necessary. The problem limitation relates to the research variables or design variables, variables and/or parameters in relation to the research/design variables, and/or variables/parameters assumed to be constant parameters or parameters that are disregarded.

### 4. Research/Design Objective

The research/design objective contains a description of the author's purpose in conducting the research/design, namely to answer the question written in the problem formulation section, or the result to be achieved, or the answer to the research/design problem. The research/design objective can be written as a series of objectives, which are more specific objectives supporting the main research/design objective. Some study programs may replace the "Research/Design Objective" subchapter with "Purpose and Objective of Research/Design," where both terms are often articulated in point form and generally use statements beginning with "to," for example:



- ✓ to develop ...;
- ✓ to identify ...;
- ✓ to explore ...;
- ✓ to measure ...;
- ✓ to explain ...;
- ✓ to describe ...;
- ✓ to compare ...;
- ✓ to determine ...;
- ✓ to apply ...;
- ✓ to design ...

In writing the objective, the author may apply the 'SMART' principle. SMART stands for Specific, Measurable, Achievable, Relevant/results-focused/realistic, and Time-bound. The purpose is to clearly articulate what the student aims to achieve in carrying out the research/design, or in answering the research/design problem previously stated.

The form of the answer to the research/design problem may take the form of "development results," "results of identifying a phenomenon," "exploration results," "measurement results," "explanation results," "application results," "comparison results," "application results," or "results of producing a prototype," among others.

#### 5. Benefits of the Research/Design

This section briefly but clearly describes the contribution of the research/design results toward the development of the field of science, technology, art, and/or toward solving development-related issues, and/or toward the development of the institution.

#### b. Literature Review

The literature review consists of two parts: (i) relevant prior research/design results, and (ii) the theoretical foundation and framework related to the research/design problem. The literature review contains references that are current, relevant, and original. The literature review is a specific part of the



argumentative writing that involves scientific and academic research/design relevant to the research/design. The role of the literature review is to convey information on the development of facts/findings in the field, theory, and research materials or other design objects. The theory presented must be theory that supports and is relevant to the research/design problem. This information is used to build the author's credibility in constructing knowledge, which is directed toward developing the conceptual framework or concept to be used in the research or design.

Relevant prior research/design results are research/design work that has been carried out by various parties, and where possible should not be the results of prior FP/FD work, but rather from scientific journals, patents, or other design reports from credible institutions.

c. Mathematical Equations

Mathematical equations are given equation numbers, referenced automatically, and written in Ms Word documents using *Equation* (not *MathType*).

d. Research Method

The research/design/device-construction method is a systematic way of solving the research/design problem (Kothari, 2004). The research/design/device-construction methodology has many dimensions, and the research/design/device-construction method is part of the research/design/device-construction methodology. The scope of the research/design/device-construction methodology is broader than the research/design/device-construction method. Within the research/design/device-construction methodology, the logical considerations behind the methods used in the context of the research/design/device-construction are applied, explaining why the researcher/designer uses a particular method or technique. The methodology contains explanations to articulate the research/design plan clearly and in detail. The research/design plan can be illustrated in the form of a flow chart/table of the stages within the research/design, in order to answer the research/design problem (Prabhat, 2015). The



research/design methodology is an outline of what the researcher/designer will do, starting from writing the hypothesis and its operational implications through to the final data analysis. The research/design plan is written covering, among others:

- (1) What is the research/design about?
- (2) Why is the research/design being conducted?
- (3) Where will the research/design be conducted?
- (4) What type of data is needed?
- (5) Where can the data needed for the research/design be found?
- (6) How long, and during what time period, will data be collected for the research/design?
- (7) What will serve as the sample in the research, or the object of the design?
- (8) What technique will be used for data collection or design?
- (9) How will the data be analyzed?
- (10) How will the report be compiled?

The form of the plan/stages within the research/design may also include: materials, equipment, and working methods as well as the techniques/process for carrying out the research/design. Materials refer to materials, data, and results of other research/design. Research/design equipment refers to laboratory and field testing tools, hardware and software, or theories and equations. The process within the research/design refers to the data collection and analysis technique, the approach/model used, the research design or device construction design, the method of interpreting and compiling research results, testing of equipment/construction, evaluation methods, and methods of drawing conclusions. This chapter must also explain the location where the Final Project/Design will be carried out.

If the Final Project/Design is part of a "capstone design" activity, then the proposal must contain the following stages:

- (i) Writing down the real problem in the field to be solved.
- (ii) Determining the specifications of the system to be



designed to solve the problem in (i).

(iii) Writing down all important decisions needed to realize the product that is part of (ii).

e. Activity Schedule

The activity schedule contains details of each research/design activity, written in table form, and marked (with darker-colored shading) in units of weeks. An example of the activity schedule can be found in Appendix 5.

f. Bibliography

The bibliography consists of two parts: (i) the list of references/citations, and (ii) the reading list/bibliography of all references cited in the proposal. The bibliography may be written to include only the list of references, or both — the list of references and the reading list. The title of this section is "Daftar Pustaka" (Bibliography). Further explanation of the bibliography can be found in subchapter 4.2.

### 3.3. Format for Writing the Final Project Proposal

The typing of the final project proposal follows the provisions below:

- a. Paper type and size: HVS paper, A4 size(210 mm x 297 mm)
- b. Line spacing: 1 (single)
- c. Margins:
  - Top margin: 3.0 cm
  - Bottom margin: 2.5 cm
  - Left margin: 3.0 cm
  - Right margin: 2.0 cm
- d. Font type:
  - Body text: Times New Roman, Normal, size 12
  - Title: may use size 14, Times New Roman
  - Captions and body text in tables, figures, algorithms: Times New Roman, size 10
  - Foreign-language words that are not translated are written in italics



## CHAPTER IV

### FINAL PROJECT REPORT

#### 4.1 Systematics

The systematics of the Final Project Report consists of three main parts, namely:

1. Preliminary Section, consisting of:

- a. Title Page

The front cover page contains: the text "FINAL PROJECT/PROJECT," the title of the Final/Project Project, the ITS logo, the author's name with student ID number (NRP), the name of the study program, the name of the department, the name of the faculty, the name of the institute (written in full using capital letters INSTITUT TEKNOLOGI SEPULUH NOPEMBER), and the city name (Surabaya), along with the year of creation.

The title page contains: the text "FINAL PROJECT/PROJECT," the title of the Final/Project Project; the ITS logo, the author's name with student ID number (NRP), the name of the study program, the name of the department, the name of the faculty, the name of the institute (written in full), and the city name (Surabaya), along with the year of creation. The title page is written in English and Indonesian on separate pages.

The title of the Final/Project Project must be typed entirely in capital letters and may not be abbreviated, except for standard/established abbreviations. The author's name must be written in capital letters and not abbreviated. **Examples of the front cover page can be found in Appendix 6, and the title page in Appendix 7 (Indonesian) and Appendix 8 (English).**

- b. Approval Page

The Approval Page serves to guarantee the validity of the scientific work produced by the final project. The Approval Page is placed on the page following the title page. The Approval



Page contains: the text "APPROVAL SHEET," the title of the Final Project, the purpose for which the FP/FD is submitted, approval from the supervisor and/or co-supervisor, and examiner(s), the name of the supervisor and/or co-supervisor, and the name of the examiner(s), the city, month, and year of approval. **An example of the approval page can be found in Appendix 9.**

c. Originality Statement Page

This page contains a written statement by the author, acknowledged by the supervisor, declaring that the final/project work prepared is the author's own original work and has been written in accordance with scientific writing standards. **An example of the Originality Statement Page can be found in Appendix 10.**

d. Abstract Page

The abstract page contains: the title, the author's name, NRP, the name of the supervisor and/or co-supervisor's name, the abstract, and keywords. The abstract page is written in Indonesian and English on separate pages. The word count is 200–400 words, including keywords. **An example of the abstract page can be found in Appendix 3 (Indonesian) and Appendix 4 (English).**

e. Foreword

The Foreword must be **no more than one page**, containing an explanation of the purpose of writing the final/project report, including expressions of gratitude to individuals who made a direct contribution to the preparation of the FP/FD. The text "FOREWORD," as the title of this page, is written entirely in capital letters. **Note: Expressions of gratitude directed toward individuals who contributed to the implementation of the Final/Project Project but were not included in the Foreword page should be written on a separate page and placed after the Appendix section.**



f. Table of Contents

The Table of Contents lists: the title page, approval sheet, abstract, foreword, table of contents, list of tables, list of figures, list of symbols, chapters down to sub-chapters, bibliography, appendices — all complete with the corresponding page numbers. The text "TABLE OF CONTENTS," as the title of this page, is written entirely in capital letters. The content of the Table of Contents can be generated automatically using the Microsoft Word feature "References - Table of Contents."

g. List of Figures, Graphs, Diagrams

The formatting for the list of figures is identical to the formatting of the table of contents. The text "LIST OF FIGURES," as the title of the list of figures, is written entirely in capital letters. The content of the list of figures can be generated automatically using the Microsoft Word feature "References - Insert Caption - Table of Figures."

h. List of Tables

The formatting for the list of tables is identical to the formatting of the table of contents. The text "LIST OF TABLES," as the title of the list of tables, is written entirely in capital letters. The content of the list of tables can be generated automatically using the Microsoft Word feature "*References - Insert Caption - Table of Figures.*"

i. List of Symbols, List of Abbreviations (if any).

2. Main Section, consisting of:

a. Introduction

- Background of the problem: must contain the real problem and the statistical problem
- Problem formulation/Formulation of the problem: The research problem is a formulation of the gap between theory and problems in Statistics, and must at minimum contain the object, variables, and a conceptual structure.
- Problem limitation/scope
- Objective: Does not have to be in the form of a declarative sentence derived from the problem

- Benefits (if deemed necessary to write)
- b. Literature Review
- Relevant prior research results. Theory to be used to solve the problem.
- Foundational theory supporting the research topic. For material on how to write references, see the ITS FP guidelines.
  - Literature study of the conceptual framework used in the selection of variables that are the object of research, and prior research. (There is no need to write "Statistical" and "non-statistical" review as sub-chapter titles — write the topic directly.)
- c. Methodology
- The method used, the materials and equipment used, the sequence of implementing the experiment.
- Data:
- Contains the research variables
  - If secondary data, must include the data source, the method of obtaining the data, and the data's eligibility (official publication, with the concept definitions and legal documentation of the data from the relevant institution attached)
  - If primary data through a survey, must be explained
  - The sampling technique, and the legal documentation of the survey must be attached.
  - If primary data through an experiment, the experimental design must be explained.
  - If using simulated data, the data generation technique and algorithm must be stated.
- Analysis Steps:
- The analysis steps are adjusted according to the research objective.



- d. Results and Discussion
  - Adjusted according to the objective.
  - Feasibility test of the method used (including assumption testing)
  - Data from experiments/measurements
  - Discussion (analysis, synthesis, and evaluation)
- e. Conclusions and Recommendations
  - In the form of research results that answer the problem or that take the form of a concept, and the objective
  - Recommendations (if deemed necessary), containing matters that could still be done better and can be further developed, or containing problems encountered during the process of working on the final project and must be based on the results of the analysis.

### 3. Final Section, consisting of:

#### a. Bibliography

The writing of the bibliography, placed at the end of the content section of the FP/FD report, follows the APA (American Psychological Association) 7th edition standard. This writing standard is used for all fields of science, namely: science, engineering, computing, design, art, and others (Southern Institute of Technology, 2020). The categorization of references in APA version 7.0 is more concise compared to APA version 6.0.

In general, the writing of the bibliography under the APA standard, version 7.0, is as follows:

1. The bibliography begins on a page separate from the content pages of the FP/FD report.
2. The bibliography appears in alphabetical order based on the first author's last name.
3. Printed results under the APA standard use a hanging indent. The second line in the bibliography is indented below the first line.



4. Title capitalization is applied only at the beginning of the sentence, which differs from the capitalization used in the original manuscript's title.
5. Capitalization of reference list titles: Use capital letters only for the first letter of the title and subtitle of books, articles, reports, chapters on web pages, and titles of magazines that are not published under the first-letter capitalization of all important words in the title for periodicals.
6. Citations and references in APA use an ampersand (&) between authors' last names, NOT "and." However, if an author's last name is used within a sentence, the word "and" is used according to normal writing rules.
7. Write the DOI and URL in the bibliography as a hyperlink (i.e., beginning with "http:" or "https:"). The default hyperlink display setting in MS Word (usually blue font, underlined) or plain, non-underlined text may be used. It is best for this link to remain accessible online.
8. Some DOIs or URLs are written in a long or complicated form; a shortened version of the DOI or URL may be used here. To convert to a short DOI, the shortDOI service provided by the International DOI Foundation (<http://shortdoi.org/>) can be used. Enter/paste the DOI and this service will generate a new shortDOI.
9. It is not recommended (do not) include the date the reference was accessed, except if it comes from a webpage that is inherently designed to change (e.g., dictionary entries, Twitter profiles, Facebook pages, maps created by Google Maps) or that reflects information that changes over time (websites that frequently update information, such as Stats NZ). Here, the access date may be written, if necessary, before the URL, for example: Accessed on 2 December 2019, from <https://xxxxx>
10. APA 7th edition DOES NOT REQUIRE database entry data: city, state (in the US), or country where the book was published. This is a significant change from the 6th edition of APA.

The reference format in APA standard version 7.0 is divided into 2 (two) categories: Books, and articles published periodically. The method of writing them in the bibliography



and in in-text citations is explained in the following section. This explanation can automatically appear in the printed output using MS Word's help feature, in the "Reference" feature, with the "APA" Style mode. If using MS Word's automation feature, the author does not need to type manually, and the results will display correctly both in the text as citations and in the reference list as the bibliography used.

1. If the reference is a book

- a. **Book without a DOI**, in printed form, with no digital version.

Format:

Author, A. A. (year). Title of book. Publisher

Example:

Lloyd Owen, D. A. (2018). *Smart water technologies and techniques: Data capture and analysis for sustainable water management*. John Wiley & Sons.

Citation style:

According to Lloyd Owen (2018, p.2) ... or ... (Lloyd Owen, 2019, p. 2)

- b. **Book with a DOI or URL**, obtained online.

- Include the DOI if available
- Include the URL if there is no DOI and the URL is accessible to all readers

Do not use a URL from an online academic library database, since these generally cannot be accessed by all readers, except students at that university who can log in. Add other information if there is no DOI or publicly accessible URL, with the reference being the same as for a printed book.

***Book, with DOI available***

Format:

Author, A. A. (year). Title of book. Publisher.  
<https://doi.org/xxxx>

Example:



Cameron-Smith, A. (2019). *A doctor across borders: Raphael Cilento and public health from empire to the United Nations*. Australian National University Press.  
<https://doi.org/10.22459/DAB.2019>

Citation style:

According to Cameron-Smith (2010, p.17) ... or ...  
 (Cameron-Smith, 2019, p. 17)

**Book, with no DOI available but a URL accessible to all readers**

Format:

Author, A. A. (year). Title of book. Publisher.  
<https://www...>

Example:

Scanlon, V. C., & Sanders, T. (2007). *Essentials of anatomy and physiology* (5th ed.). F.A. Davis.  
<https://yhdhp.net/uploads/Essentials-of-Anatomy-and-Physiology.pdf>

Citation style:

According to Scanlon and Sanders (2007, p.46) ... or ...  
 (Scanlon & Sanders, 2007, p. 46)

**Book, with no DOI, accessible via an online library**  
**Format:**

Author, A. A. (year). Title of book. Publisher.

Example:

Budras, K.-D., Greenough, P. R., Habel, R. E., & Mülling, C. K. W. (2011). *Bovine anatomy* (2nd ed.). Schlütersche.

Citation style:

Budras et al. (2011) stated ... or ... (Budras et al., 2011)

**c. Book, edition other than the 1st edition**

Format (print):

Author, A. A., & Author, B. B. (year). Title of book (2nd ed.). Publisher.

Example:

Marieb, E. N., & Hoehn, K. (2016). *Human anatomy & physiology* (10th ed.). Pearson.

Citation style:



According to Marieb and Hoehn (2016, p. 419) ... or ...  
(Marieb & Hoehn, 2016, p. 419)

**d. Edited book, without a DOI**

Format:

Editor, A. A., & Editor, B. B. (Eds.). (year). Title of book.  
Publisher.

Example:

Lindquist, R., Snyder, M., & Tracy, M. F. (Eds.). (2014).  
*Complementary & alternative therapies in nursing* (7th  
ed.). Springer.

Citation style:

Lindquist et al. (2014) stated ... or ... (Lindquist et al.,  
2014)

**e. Edited book, with a DOI**

Format:

Editor, A. A. (Ed.). (year). Title of book. Publisher.  
<https://doi.org/10.xxxx/xxxxxx>

Example:

Helbich, M. (Ed.). (2018). *Frontiers in mental health  
and the environment*. MDPI.  
<https://doi.org/10.3390/books978-3-03897-391-1>

Citation style:

Helbich (2018) ... or ... (Helbich, 2018)

**f. Book in a language other than English (example:  
Japanese)**

For references in book form written in a language other  
than English, the writing in the reference list is done  
with brackets [ ].

Format:

Author, A. A., & Author, B. B. (year). Title of book  
[Translation of book title]. Publisher.

Example:

Molinari, E., & Labella, A. (2007). *Psicologia clinica:  
Dialoghi e confronti* [Clinical psychology: Dialogue and

confrontation]. Springer. Amano, N., & Kondo, H. (2003). *Nihongo no goi tokusei* [Lexical characteristics of Japanese Language] (Vol. 7). Sanseido.

Citation style:

Molinari and Labella (2007, p. 25) stated ... or ... (Molinari & Labella, 2007, p. 25); Amono and Kondo (2003) stated ... or ... (Amono & Kondo, 2003)

**g. Book republished in translated form**

Format:

Author, A. A., & Author, B. B. (year). Title of book (T. Translator, Trans.). Publisher. (Original work published year).

Example:

Schiller, F. (2018). *Don Carlos infant of Spain: A dramatic poem* (F. Kimmich, Trans.). Open Book. (Original work published 1804).

Citation style:

Schiller (1804/2018, p.19) ... or ... (Schiller, 1804/2018, p.19)

**h. Manual, print version**

If the author and publisher have the same name, the publisher name is omitted.

Example:

Brother Industries. (n.d.). *Reference guide: Brief explanations for routine operations HS-J6000DW HL-J6100DW*.

Citation style:

Brother Industries (n.d., p.1)... OR ... (Brother Industries, n.d., p.1)

**i. Manual, accessed online**

Example:



World Health Organization. (2019). *International statistical classification of diseases and related health problems* (11th ed.). <https://icd.who.int/>

Example:

Canterbury District Health Board. (2019, January 25). *Hand hygiene* (Ref. 234641). <http://edu.cdhb.health.nz/Hospitals-Services/Health-Professionals/CDHB-Policies/Infection-Prevention-Control-Manual/Documents/Hand-Hygiene-Policy.pdf>

Citation style:

World Health Organisation (2019) ... or ... (World Health Organisation, 2019); Canterbury District Health Board (2019, p. 2) ... or ... (Canterbury District Health Board, 2019, p.2)

## 2. Chapter in an edited book

### a. Chapter from an edited book, without a DOI

Format:

Author, A. A. (year). Title of chapter. In B. Editor & C. Editor (Eds.), Title of book (2nd ed., pp. pages of chapter). Publisher.

Example:

Casida, J.E. (2010). Pest toxicology: The primary mechanisms of pesticide action. In R. Krieger (Ed.), *Hayes' handbook of pesticide toxicology* (3rd ed., pp. 103-117). Academic Press.

Citation style:

Casida (2010, p. 105) stated ... or ... (Casida, 2010, p. 105)

### b. Chapter from an edited book, with a DOI available

Format:

Author, A. A. (year). Title of chapter. In B. Editor & C. Editor (Eds.), Title of book (2nd ed., pp. pages of chapter). Publisher.

chapter). Publisher. <https://doi.org/10.xxxx/xxxxxx>

Example:

Wall, R., & Rafferty, A. M. (2017). Trouble with "status": Competing models of British and North American public health nursing education and practice in British Malaya. In H. Pols., C.M. Thompson., & J. H. Warner (Eds.), *Translating the body: Medical education in Southeast Asia* (pp. 67-94). Nuss Press. <https://doi.org/10.2307/j.ctv1xxzqp>

Citation style:

Wall and Rafferty (2017, p. 82) stated ... or ... (Wall & Rafferty, 2017, p.82)

**c. Dictionary, thesaurus, or encyclopedia**

If the author and publisher have the same name, the publisher is omitted. For a print-version reference source.

Example:

Merriam-Webster. (2019). *Merriam-Webster's Collegiate Dictionary* (11th ed.).

Citation style:

Merriam-Webster (2019) ... or ... (Merriam-Webster's Collegiate Dictionary, 2019)

**3. Articles published periodically**

Periodically published articles include: (i) journals, (ii) magazines, (iii) newspapers, (iv) bulletins, (v) blogs, and (vi) other online platforms that publish articles. Journals and magazines carry identifying information in the form of volume/issue numbers. For example, a journal with the identifier volume 6, number 2. In this case, the volume number is italicized followed by the issue number in parentheses but not italicized. Example: 6(2)

**a. Journal article with a DOI**

Use sentence-case capitalization for the article title. Use capital letters for the first letter of each main word in the



journal title. Italicize the journal title and volume number. Add the issue number if available, and include the DOI number; it usually appears on the first page of the article.

Format:

Author, A. A., Author, B. B., & Author, C. C. (year). Title of article. Title of Periodical, xx, pp-pp. <https://doi.org/xxxx>

Example:

Montayre, J., Dimalapang, E., Sparks, T., & Neville, S. (2019). New Zealand nursing students' perceptions of biosciences: A cross-sectional survey of relevance to practice, teaching delivery, self-competence and challenges. *Nurse Education Today*, 79, 48-53. <https://doi.org/10.1016/j.nedt.2019.05.013>

Citation style:

Berman et al. (2012, p. 537) ... or ... (Berman et al., 2012, p.537)

**b. Journal article without a DOI, and no URL available**  
(including a URL accessible only to a closed circle)

Format:

Author, A. A., Author, B. B., & Author, C. C. (year). Title of article. Title of Periodical, xx, pp-pp. <https://xxxxx>

Example:

Akin, D., & Huang, L. M. (2019). Perceptions of college students with disabilities. *Journal of Postsecondary Education and Disability*, 32(1), 21-33. <https://www.ahead.org/professional-resources/publications/jped/archievedjped/jped-volume-32>

Citation style:

Statement from Akin and Huang (2019, p.21) ... or ... (Akin & Huang, 2019, p.21)

**c. Journal article without a DOI, from an academic research database**

For a journal article found in an academic institution's database. The database URL is provided in place of the DOI, e.g., <http://ezproxy.sit.ac.nz:xxxxx>. In this case, do



not substitute the database name or URL.

Example:

Whitehead, A., & Gould Fogerite, S. (2017). Yoga treatment for chronic non-specific low back pain. *Explore: The Journal of Science & Healing*, 13(4), 281-284.

Citation style:

Whitehead & Gould Fogerite (2017, p. 282) stated... or ... (Whitehead & Gould Fogerite, 2017, p. 282)

**d. Journal article with a DOI, and 21 or more authors**

Because the original DOI is long and complicated, a shortened DOI is used. Both the long and short forms of the DOI are acceptable. List the first 19 authors, then use "..." followed by the last author's name.

Example:

Gaudinski, M. R., Coates, E. E., Houser, K. V., ... Ledgerwood, J. E. (2018). Safety and pharmacokinetics of the Fc-modified HIV-1 human monoclonal antibody VRC01LS: A phase 1 open-label clinical trial in healthy adults. *PLoS Med*, 15(1), e1002493.

<https://doi.org/10.1371/journal.pmed.1002493>

**e. Journal article with a DOI, authored individually or as a group**

Example:

Eysenbach, G., & CONSORT-EHEALTH Group. (2011). CONSORT-EHEALTH: Improving and standardizing evaluation reports of web-based and mobile health interventions. *Journal of Medical Internet Research*, 13(4), e126. <https://doi.org/10.2196/jmir.1923>

**f. Journal article in press**

An "in press" article is one that has been peer-reviewed, accepted, and will be published in a journal, but has not yet been assigned to a specific volume/issue. Although an in-press article does not yet have all available bibliographic details, this article can be cited using the online publication year and the DOI.

Example:



Kreuzer, M., Cado, V., & Raïes. (2019). Moments of care: How interpersonal interactions contribute to luxury experience of healthcare consumers. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2019.11.033>

**g. Article in an online magazine**

The month and date of publication are written after the year of publication.

Example:

Jouset, P. (2019, November 29). Illuminating earth's faults. *Science*, 366(6469), 1076-1077. <https://science.sciencemag.org/content/366/6469/1076>

Citation style:

Jousett (2019) .... Or ... (Jousett, 2019)

**h. Article in an online newspaper**

An article in an online newspaper can be used as a reference. Writing style uses italics; the month and date are written after the year.

Example:

Harding, E. (2019, November 21). Invercargill Kmart ready to open. *The Southland Times*. <https://www.stuff.co.nz/national/117596378/invercargill-kmart-ready-to-open>

Citation style:

Harding (2019) wrote .... or ... (Harding, 2019)

**i. Article on a webpage categorized as not a newspaper**

Example:

Taunton, E. (2019, December 2). Low methane New Zealand sheep coming to a farm near you. *Stuff*. <https://www.stuff.co.nz/business/farming/117862851/low-methane-sheep-coming-to-a-farm-near-you>

Citation style:

Taunton (2019) ... OR ... (Taunton, 2019)

**b. Appendices (if any)**



### c. Author's Biodata

Written on the last page, containing the author's personal resume, including place and date of birth, educational history, notable activities, organizations, achievements attained, etc. In the top-left corner, a recent close-up photo of the author, sized (4 x 6) cm, is displayed, and a color photo is recommended. An example of the biodata can be found in Appendix 11.

## 4.2 Format of the Final Project Report

The typing of the final project must follow the provisions below:

- a. Paper type and size: HVS paper, 80 grams, A4 size (210 mm x 297 mm)
- b. Line spacing: 1 (single)
- c. Margins:
  - Top margin: 3.0 cm
  - Bottom margin: 2.5 cm
  - Left margin: 3.0 cm
  - Right margin: 2.0 cm
- d. Font type: Times New Roman, Normal, size 12
- e. Title: may use size 14, Times New Roman
- f. Captions and body text in tables, figures, algorithms: Times New Roman, size 10
- g. Tables and figures, if any, should as much as possible also be presented on the same size of paper
- h. Page numbers:
  - The preliminary section is given page numbers using lowercase Roman numerals (i, ii, iii, iv, v, .. etc.)
  - The Main/Core Section (body text) and the Final Section are given sequential numbers using Arabic numerals, starting from number 1 and beginning from the Introduction chapter through to the appendices.
  - Page numbers are written at the bottom (footer), right-aligned.



Page numbering can be done using MS Word's automatic feature under "Insert Page Number."

i. Tables and Figures

Tables are given sequential numbers within each chapter using Arabic numerals, with the following writing rules:

- The number consists of 2 parts: the first part indicates the chapter, while the second part indicates the table number (example: Table 2.1, Table 3.2, Table 3.3, etc.).
- The number and caption/title of the table are placed above the table, center-aligned, with each word starting with a capital letter except for conjunctions.
- Tables do not need vertical lines.
- The table header is not bolded, but is given shading.
- Tables are given a number column.
- A table split across two or more pages must be arranged with the table header and title/caption repeated.

Table 4. 1 Example Table

| No | Estimated Parameter | Estimated Value | Bias  |
|----|---------------------|-----------------|-------|
| 1  | $\gamma$            | -2.713          | 0.001 |
| 2  | $\beta_1$           | 2.713           | 0.312 |

Figures are given sequential numbers within each chapter using Arabic numerals, with the following writing rules:

- The number consists of 2 parts: the first part indicates the chapter, while the second part indicates the figure number (example: Figure 2.1, Figure 3.2, Figure 3.3, etc.).
- The number and title of the figure are placed below the figure, with each word starting with a capital letter except for conjunctions.

Numbering of tables and figures can be done using MS Word's automatic feature under "Caption."

- j. Front and back cover thickness: no more than 1 mm (soft cover).
- k. Various levels of chapter titles
  - If there is still a title at a lower level, it is written as in point (c) below.
  - Chapter and Chapter Title: typed entirely in capital letters on a new page, centered equally from the left and right margins, and bolded. The chapter number is written in Roman numerals, and the chapter title is written on the following line.
  - Sub-title/sub-chapter: the first letter of each word, except conjunctions, is written in bold capital letters and placed starting from the left margin.
  - Sub-sub-title/sub-sub-chapter: written starting from the left margin and bolded.
  - The first letter of a sub-sub-title is written in capital letters.
  - If there is still a title at a lower level, it is written the same way as the sub-sub-title.

Formatting of chapters, sub-chapters, sub-sub-chapters, etc. can be done using MS Word's automatic feature by configuring "Heading 1," "Heading 2," "Heading 3," etc.

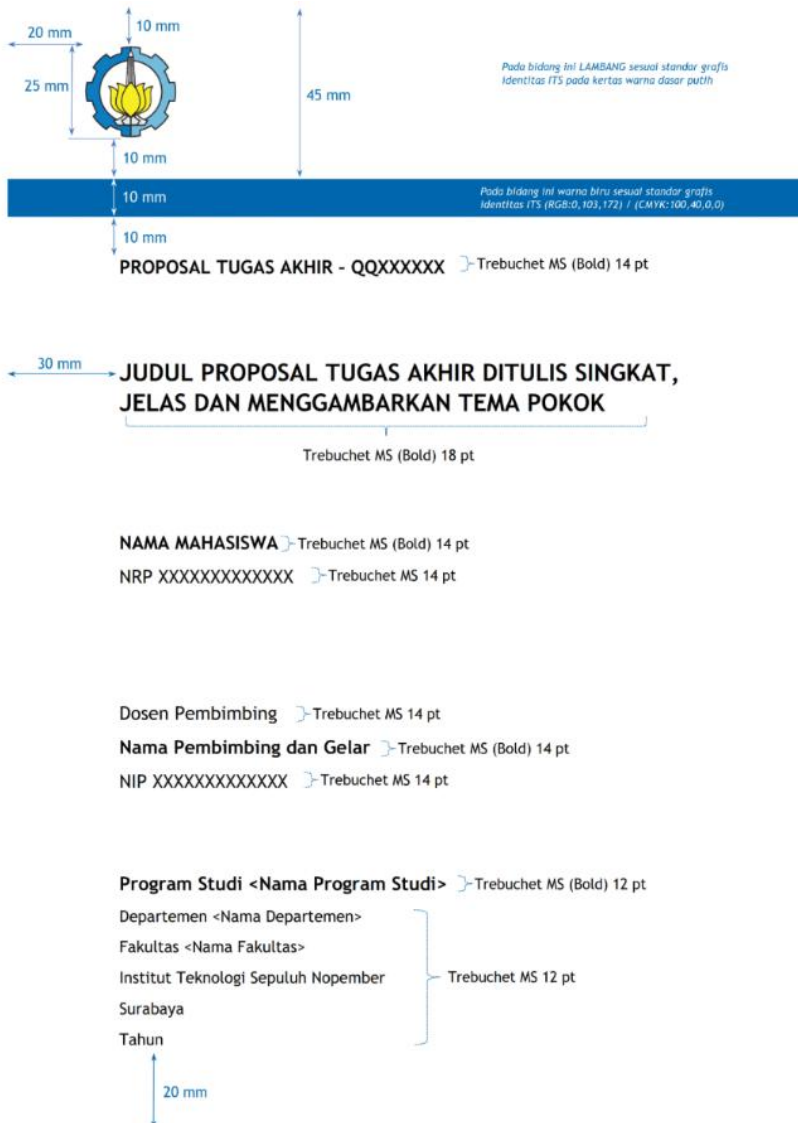
#### l. References

All directly cited sources must be included. The method for citing sources can be found in sub-chapter 3.11. The standard for writing cited sources within the content of the FP Report follows the "APA" (American Psychological Association) 7th edition standard. This writing can be done automatically using MS Word, using the "References - Manage Source" feature, or by using the Mendeley Desktop feature installed within MS Word. With the help of this software, the bibliography can be printed automatically, without manual typing.



## LAMPIRAN

## Appendix 1 Example of the Front Cover of the Final Project Proposal



## Appendix 2 Example of the Approval Sheet for the Final Project Proposal

**APPROVAL SHEET****TITLE OF FINAL PROJECT****FINAL PROJECT PROPOSAL**

Submitted to fulfill one of the requirements  
 For obtaining a Bachelor of Statistics at  
 Bachelor Program of Statistics  
 Department of Statistics  
 Faculty of Science and Data Analytics  
 Institut Teknologi Sepuluh Nopember

By: **STUDENT NAME**  
 NRP XXXXXXXXXX

Approved By:  
**Advisor:**

1. Name of advisor and academic title .....  
 NIP

**Examiners:**

2. Name of examiner and academic title .....  
 NIP
3. Name of examiner and academic title .....  
 NIP

**SURABAYA**

**Month, Year**



## Appendix 3 Example of the Indonesian Abstract Format

**ANALISA PENGARUH PANJANG LINKAGE TERHADAP RESPON SERIES  
ACTIVE VARIABLE GEOMETRY SUSPENSION (SAVGS)**

**Nama Mahasiswa / NRP** : Ayu Dwi Larima / 5003211001  
**Prodi, Departemen** : Sarjana Statistika, Departemen Statistika FSAD ITS  
**Dosen Pembimbing** : Nama pembimbing dan gelar

**Abstrak**

Suspensi merupakan komponen penting pada kendaraan bermotor karena berperan penting dalam menjaga kenyamanan dan keamanan saat berkendara. Sebuah ide baru diperkenalkan yaitu, *Series Active Variable Geometry Suspension* (SAVGS), dimana sistem suspensi ini memiliki performa yang lebih baik dari suspensi pasif dan dapat mengatasi kelemahan dari suspensi aktif. Penelitian terus dilakukan guna meningkatkan performa dari SAVGS. Pada penelitian ini akan dipelajari pengaruh panjang *linkage* (*single link*) terhadap performa kendaraan khususnya kenyamanan dan stabilitas. Model seperempat kendaraan digunakan untuk memodelkan dinamika sistem suspensi kendaraan. Pengaruh panjang *single link* dianalisis dalam bentuk koefisien kekakuan dan koefisien peredam. Model linier digunakan untuk merancang *state-feedback control system* (LQR). Kinerja sistem kendali diuji pada model nonlinier yang dibuat dengan menggunakan Simscape Multibody. Hasil simulasi menunjukkan bahwa semakin panjang *single link* yang digunakan maka kenyamanan dan stabilitas kendaraan semakin besar. Namun, semakin panjang *single link* diperlukan input kontrol yang lebih besar.

**Kata kunci:** *Keyword1, Keyword2, Keyword3, Keyword4, Keyword5*



## Appendix 4 Example of the English Abstract Format

**ANALYSIS OF THE EFFECT OF LINKAGE LENGTH ON SERIES ACTIVE  
VARIABLE GEOMETRY SUSPENSION (SAVGS) RESPONSE**

**Student Name / NRP** : Ayu Dwi Larima / 5003211001  
**Program, department** : Bachelor Program of Statistics,  
 Department of Statistics F-Scientics ITS  
**Advisor** : Name of advisor and academic title

**Abstract**

Lorem ipsum dolor sit amet consectetur adipiscing elit. Quisque faucibus ex sapien vitae pellentesque sem placerat. In id cursus mi pretium tellus duis convallis. Tempus leo eu aenean sed diam urna tempor. Pulvinar vivamus fringilla lacus nec metus bibendum egestas. Iaculis massa nisl malesuada lacinia integer nunc posuere. Ut hendrerit semper vel class aptent taciti sociosqu. Ad litora torquent per conubia nostra inceptos himenaeos. Lorem ipsum dolor sit amet consectetur adipiscing elit. Quisque faucibus ex sapien vitae pellentesque sem placerat. In id cursus mi pretium tellus duis convallis. Tempus leo eu aenean sed diam urna tempor. Pulvinar vivamus fringilla lacus nec metus bibendum egestas. Iaculis massa nisl malesuada lacinia integer nunc posuere. Ut hendrerit semper vel class aptent taciti sociosqu. Ad litora torquent per conubia nostra inceptos himenaeos.

**Keywords:** *Keyword1, Keyword2, Keyword3, Keyword4, Keyword5*



## Appendix 5 Example of Activity Schedule

JADWAL KEGIATAN

| No | Kegiatan                            | Bulan Tahun |   |   |   | Bulan Tahun |   |   |   | Bulan Tahun |   |   |   | Bulan Tahun |   |   |   |
|----|-------------------------------------|-------------|---|---|---|-------------|---|---|---|-------------|---|---|---|-------------|---|---|---|
|    |                                     | 1           | 2 | 3 | 4 | 1           | 2 | 3 | 4 | 1           | 2 | 3 | 4 | 1           | 2 | 3 | 4 |
| 1  | Studi literatur dan referensi       | ■           | ■ | ■ |   |             |   |   |   |             |   |   |   |             |   |   |   |
| 2  | Pengumpulan informasi dan data      | ■           | ■ | ■ |   | ■           | ■ | ■ |   |             |   |   |   |             |   |   |   |
| 3  | Penyusunan Proposal TA              |             |   |   |   | ■           | ■ | ■ |   |             |   |   |   |             |   |   |   |
| 4  | Pengolahan Data                     |             |   |   |   |             | ■ | ■ | ■ | ■           | ■ | ■ |   |             |   |   |   |
| 5  | Analisa Data                        |             |   |   |   |             |   | ■ | ■ | ■           | ■ | ■ | ■ |             |   |   |   |
| 6  | Menarik kesimpulan dan saran        |             |   |   |   |             |   |   |   |             | ■ | ■ | ■ | ■           |   |   |   |
| 7  | Menyusun laporan Tugas Akhir        |             |   |   |   |             |   |   |   |             | ■ | ■ | ■ | ■           | ■ | ■ |   |
| 8  | Seminar hasil dan ujian Tugas Akhir |             |   |   |   |             |   |   |   |             |   |   |   |             |   |   | ■ |

Note: The example above is not practical. Avoid administrative details and relate the activities to the research methods described in Chapter III.

## FINAL PROJECT GUIDEBOOK

## Appendix 6 Example of the Front Cover of the Final Project Report



## Appendix 7 Example of the Outer Cover of the Final Project Report



TUGAS AKHIR - SS234862

**JUDUL TUGAS AKHIR RATA KIRI DAN RELEVAN  
DENGAN *CONTENT* TUGAS AKHIR**

AYU DWI LARIMA

NRP 5003211001

Dosen Pembimbing

Dosen Pembimbing Utama, S.Stat., M.Si., Ph.D.

NIP xxxxxxxx xxxxxx x xxx

Dr. Dosen Ko-pembimbing, S.Si., M.Sc.

NIP xxxxxxxx xxxxxx x xxx

Program Studi Sarjana Statistika

Departemen Statistika

Fakultas Sains dan Analitika Data

Institut Teknologi Sepuluh Nopember

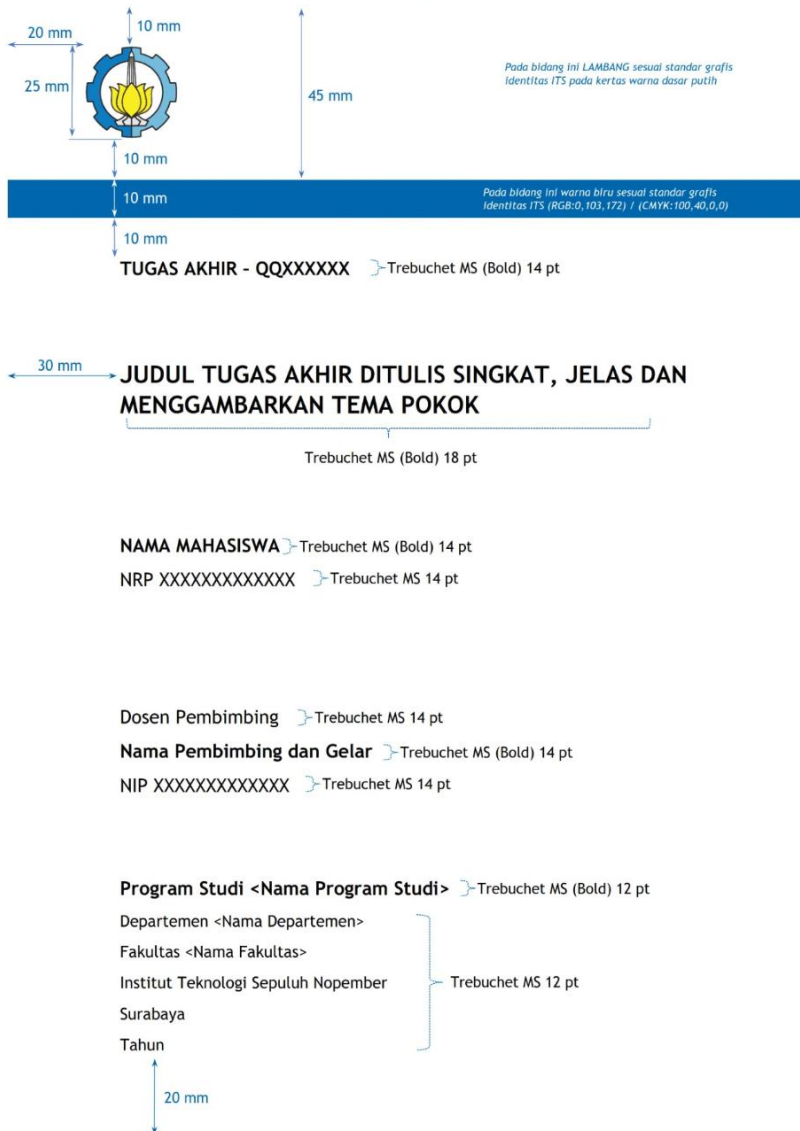
Surabaya

2025



## FINAL PROJECT GUIDEBOOK

### Appendix 8 Example of the Final Project Title Page in Indonesian



## Appendix 9 Example of the Inside Cover of the Final Project Report



TUGAS AKHIR - SS234862

### JUDUL TUGAS AKHIR RATA KIRI DAN RELEVAN DENGAN *CONTENT* TUGAS AKHIR

AYU DWI LARIMA

NRP 5003211001

Dosen Pembimbing

Dosen Pembimbing Utama, S.Stat., M.Si., Ph.D.

NIP xxxxxxxx xxxxxx x xxx

Dr. Dosen Ko-pembimbing, S.Si., M.Sc.

NIP xxxxxxxx xxxxxx x xxx

Program Studi Sarjana Statistika

Departemen Statistika

Fakultas Sains dan Analitika Data

Institut Teknologi Sepuluh Nopember

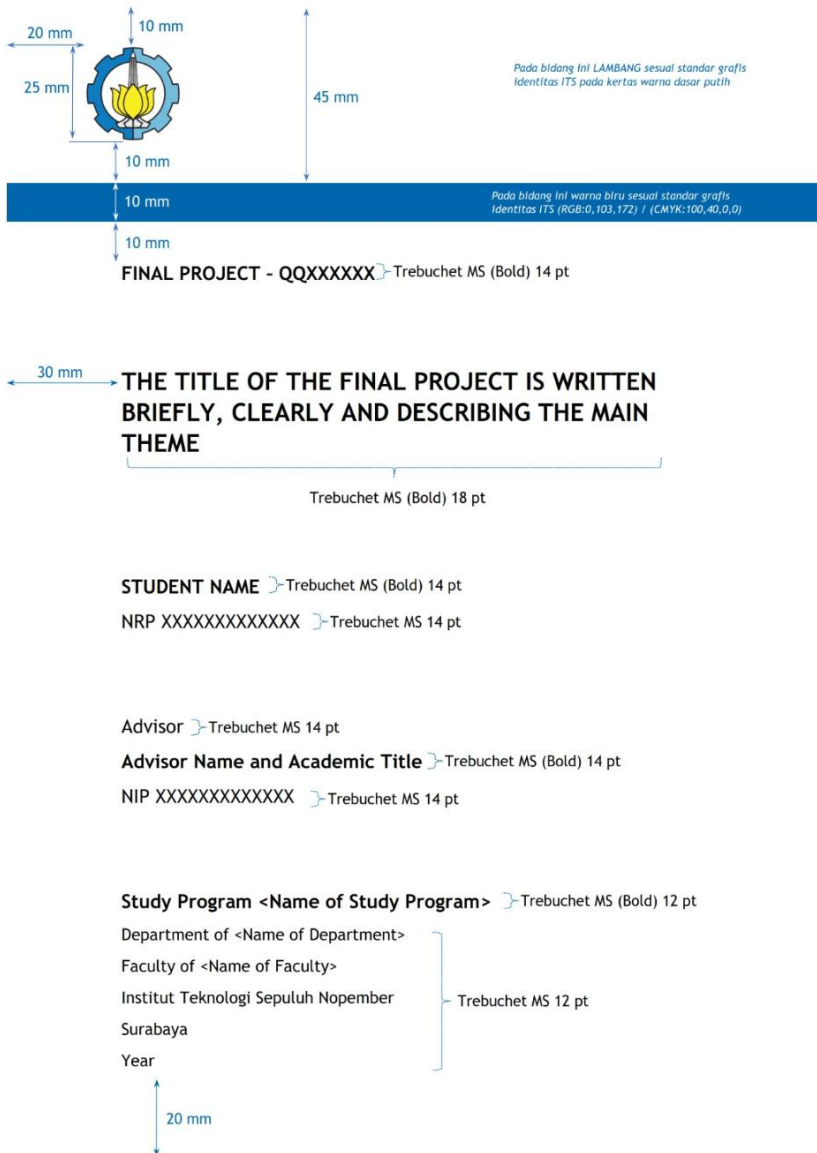
Surabaya

2025



## FINAL PROJECT GUIDEBOOK

### Appendix 10 Example of the Final Project Title Page in English



## Appendix 11 Example of the Inside Cover of the Final Project Report (English)



**FINAL PROJECT - SS234862**

**ENGLISH VERSION OF YOUR FINAL PROJECT TITLE NO  
MORE THAT TWENTY WORDS**

**AYU DWI LARIMA**

**NRP 5003211001**

**Advisors**

**Dosen Pembimbing Utama, S.Stat., M.Si., Ph.D.**

**NIP xxxxxxxx xxxxxx x xxx**

**Dr. Dosen Ko-pembimbing, S.Si., M.Sc.**

**NIP xxxxxxxx xxxxxx x xxx**

**Bachelor Program of Statistics**

**Departmen of Statistics**

**Faculty of Science and Data Analytics**

**Institut Teknologi Sepuluh Nopember**

**Surabaya**

**2025**



## Appendix 12 Example of the Approval Sheet for the Final Project Report

### APPROVAL SHEET

#### TITLE OF FINAL PROJECT

#### FINAL PROJECT

Submitted to fulfill one of the requirements  
 For obtaining a Bachelor of Statistics at  
 Bachelor Program of Statistics  
 Department of Statistics  
 Faculty of Science and Data Analytics  
 Institut Teknologi Sepuluh Nopember

By: **STUDENT NAME**  
 NRP XXXXXXXXXX

Exam Date: Day Month Year  
 Graduation Period: Month Year

Approved By:  
**Advisor:**

1. Name of advisor and academic title .....  
 NIP

#### Examiners:

2. Name of examiner and academic title .....  
 NIP
3. Name of examiner and academic title .....  
 NIP

**Head of Statistics Department**  
**Faculty of Science and Data Analytics**

**Dr.rer.pol. Dedy Dwi Prastyo, S.Si. M.Si**  
 NIP. 19831204 200812 1 002



## Appendix 13 Example of the Statement of Originality

**PERNYATAAN ORISINALITAS**

Yang bertanda tangan di bawah ini:

Nama mahasiswa / NRP : ..... / .....  
 Departemen : Statistika  
 Dosen Pembimbing / NIP : ..... / .....

dengan ini menyatakan bahwa Tugas Akhir dengan judul “.....”  
 adalah hasil karya sendiri, bersifat orisinal, dan ditulis dengan mengikuti kaidah  
 penulisan ilmiah

Bilamana di kemudian hari ditemukan ketidaksesuaian dengan pernyataan ini,  
 maka saya bersedia menerima sanksi sesuai dengan ketentuan yang berlaku di  
 Institut Teknologi Sepuluh Nopember.

Surabaya, xx Bulan yyyy

Mengetahui  
 Dosen Pembimbing

Mahasiswa

(.....)  
 NIP

(.....)  
 NRP



## FINAL PROJECT GUIDEBOOK

### STATEMENT OF ORIGINALITY

The undersigned below:

Name of student / NRP : ..... / .....  
 Department : Statistics  
 Advisor / NIP : ..... / .....

hereby declare that the Final Project with the title of “.....” is the result of my own work, is original, and is written by following the rules of scientific writing.

If in the future there is a discrepancy with this statement, then I am willing to accept sanctions in accordance with the provisions that apply at Institut Teknologi Sepuluh Nopember.

Surabaya, xx Month yyyy

Acknowledged  
 Advisor

Students

(.....)  
 NIP

(.....)  
 NRP



## Appendix 14 Example Author Biography

Foto closed-up  
beralmamater

Penulis dilahirkan di Madiun, 29 Januari 2005 dan merupakan anak pertama dari empat bersaudara. Penulis telah menempuh pendidikan formal yaitu di TK ABA 18 Madiun, SDN Beteng 1 Madiun, SMPN 2 Madiun dan SMAN 2 Madiun. Setelah lulus dari SMA tahun 2023, penulis mengikuti SNBP dan diterima di Departemen Statistika FSAD - ITS pada tahun 2023 dan terdaftar dengan NRP 5003231111. Selama menjalani program sarjana, penulis aktif di beberapa kegiatan himpunan kemahasiswaan (HIMASTA), yakni sebagai penanggung jawab kegiatan XYZ dan menjadi kepala departemen Fufufafa. Selain itu, penulis juga berpengalaman menjadi asisten dosen pada mata kuliah Basis Data dan grader untuk mata kuliah Pengantar Analisis Survival. Dokumentasi portofolio penulis dapat ditinjau pada <https://github.com/namapenulis>.