



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta



**TRANSLATION ANALYSIS OF NOUN PHRASE
RELATED TO MECHANICAL ENGINEERING TERMS
IN THE THESIS ABSTRACTS OF MECHANICAL
ENGINEERING STUDENTS AT PNJ**

THESIS

Proposed as a Compulsory Prerequisite
for Bachelor's Degree in Applied Linguistics (S.Tr.Li)

Syadni Alya Afifa
2108411029

**STUDY PROGRAM OF ENGLISH FOR BUSINESS AND
PROFESSIONAL COMMUNICATION
DEPARTMENT OF BUSINESS ADMINISTRATION
POLITEKNIK NEGERI JAKARTA**

2025



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

PRONOUNCEMENT

I, the undersigned:

Student Name : Syadni Alya Afifa
Student ID : 2108411029
Study Program : **English for Business and Professional Communication (BISPRO)**
Thesis Title : Translation Analysis of Noun Phrase Related to Mechanical Engineering Terms in the Thesis Abstracts of Mechanical Engineering Students at PNJ

Hereby declare that this thesis is my original work and is free from plagiarism or any form of imitation of others' works. All quotations and references from other sources have been appropriately cited following the applicable guidelines for academic writing.

If then this pronouncement proves false, I am willing to accept any academic punishment.

Depok, 10 July 2025
The declarant



Syadni Alya Afifa
NIM 2108411029



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

LEGITIMATION

The following thesis is proposed by:

Student Name : Syadni Alya Afifa
Student ID : 2108411029
Study Program : **English for Business and Professional Communication (BISPRO)**
Thesis Title : Translation Analysis of Noun Phrase Related to Mechanical Engineering Terms in the Thesis Abstracts of Mechanical Engineering Students at PNJ

It has been examined by the Board of Thesis Examiners on 19 June 2025 and decided
"PASSED"

Board of Thesis Examiners

Head of Examiner : Dr. Drs. Nur Hasyim, M.Si., M.Hum.

Examiner 1 : Fanny Puji Rakhmi, S.Hum. M.Hum.

Examiner 2 : Eky Erlanda Edel, S.Pd., M.Pd.

Signature

Under the supervision of Board of Thesis Supervisors

Board of Thesis Supervisors

Supervisor 1 : Dr. Drs. Nur Hasyim, M.Si., M.Hum.

Supervisor 2 : Ratna Widya Iswara, S.Pd., M.Pd.

Signature

Depok, 10 July 2025

Legalized by:

Head of Department Business
Administration

Dr. Wahyudi Utomo, S.Sos., M.Si.
NIP 198007112015041001

Acknowledged by:

Head of Study Program English for Business and
Professional Communication (BISPRO)

Dr. Dra. Ina Sukaesih, Dipl.TESOL., M.M., M.Hum.
NIP 196104121987032004



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

PREFACE

Praise and gratitude be to Allah SWT, for His blessings and grace, through which the author was able to complete this thesis as a requirement for the Applied Bachelor's degree in the English for Business and Professional Communication Study Program, Department of Business Administration, Politeknik Negeri Jakarta. The author fully realizes that the completion of this thesis would not have been possible without the support, guidance, and assistance from many parties. Therefore, the author would like to express sincere appreciation and gratitude to:

1. Dr. Ina Sukaesih, Dipl. TESOL, M.M., M.Hum., as the Head of the Study Program for her guidance during the author's study.
2. Dr. Drs. Nur Hasyim, M.Si., M.Hum., as the first supervisor who patiently provided academic direction for the preparation of this thesis.
3. Ratna Widya Iswara, S.Pd., M.Pd., as the Second Supervisor who has provided constructive suggestions in the preparation of this thesis.
4. Elitaria Bestri Agustina Siregar, S.S., M.A. as the raters who validated my data, and also provided guidance and supervision in discussing my research topic.
5. My beloved family, *Ibu Ida, Bapak Suryono, Mamah Dwi, Papah Hadian, Adik Assajid and Mba Sekar*, who have given their unconditional love and support.
6. Fimansyah Adhyatma Pradana, a Mechanical Engineering student from Universitas Gadjah Mada, who served as a valuable discussion partner.
7. My dearest friends, Frity, Naomi, Pute, Puti, and Azifah, thank you for filling my campus days with cherished memories.
8. Lastly, the author extends heartfelt thanks to herself, Ifa, for choosing to stay strong in silence, for showing up through fear, and for finishing what once felt impossible. Thank you for not giving up.

The author acknowledges that this thesis may still contain shortcomings; therefore, constructive criticism and suggestions from readers are highly welcomed. May this thesis be beneficial and contribute positively to the field.

Jakarta,

Syadni Alya Afifa



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

CONSENT OF THESIS PUBLICATION FOR ACADEMIC INTERESTS

I, the undersigned:

Student Name : Syadni Alya Afifa
Student ID : 2108411029
Study Program : **English for Business and Professional Communication (BISPRO)**
Department : **Business Administration**
Manuscript : **Thesis (*Skripsi*)**

In the pursuit of knowledge advancement, I hereby consent to entrust and grant to Politeknik Negeri Jakarta Non-exclusive Royalty-free Right for my thesis entitled:

**TRANSLATION ANALYSIS OF NOUN PHRASE RELATED TO
MECHANICAL ENGINEERING TERMS IN THE THESIS ABSTRACTS
OF MECHANICAL ENGINEERING STUDENTS AT PNJ**

along with any related materials (if necessary). With this Non-exclusive Royalty-free Right, Politeknik Negeri Jakarta reserves the right to store, transfer, disseminate, manage in the form of a database, maintain, and publish my thesis while continuing to acknowledge my name as the author/creator and copyright holder.

In witness whereof, I hereby make this statement truthfully.

Made in : Depok

On the date of : 10 July 2025

Declared by :

Syadni Alya Afifa

Manuscript: thesis, non-seminar papers, practical work reports, internship reports, professional and specialized tasks.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

ABSTRACT

Syadni Alya Afifa. English for Business and Professional Communication Study Program. Translation Analysis of Noun Phrase Related to Mechanical Engineering Terms in the Thesis Abstracts of Mechanical Engineering Students at PNJ.

This study aims to analyze noun phrase types and translation techniques used in the abstracts of PNJ Mechanical Engineering undergraduate thesis. A qualitative descriptive method was employed to assess 19 abstracts resulting 123 data of noun phrase related to mechanical engineering terms, focusing on linguistic and translation analysis of sentence pairs in the source language (Indonesian) and the target language (English). The results reveal the dominance of *modificative* noun phrases (95%), reflecting the need for precision in technical terms. In contrast, *coordinative* noun phrases account for only 4%, and *appositive* ones for merely 1%. The primary translation techniques include *pure borrowing* (40%) for internationally standardized terms, followed by a combination of *established equivalent* and *transposition* (36%), and *established equivalent* alone (11%). Translation quality achieved a high level of accuracy, with 97% of the data rated accurate (average score of 2.96). The remaining 3% of inaccurate translations were due to conceptual misunderstandings and inconsistent equivalents. These results align with the characteristics of technical texts, which emphasize precision and efficiency.

Keywords: abstracts; accuracy; mechanical engineering terms; noun phrases; translation techniques.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

ABSTRAK

Syadni Alya Afifa. *Program Studi Bahasa Inggris untuk Komunikasi Bisnis dan Profesional. Translation Analysis of Noun Phrase Related to Mechanical Engineering Terms in the Thesis Abstracts of Mechanical Engineering Students at PNJ.*

Penelitian ini bertujuan untuk menganalisis jenis frasa nomina dan teknik penerjemahan yang digunakan dalam abstrak skripsi sarjana Teknik Mesin PNJ. Metode yang digunakan adalah deskriptif kualitatif untuk menelaah 19 abstrak yang menghasilkan 123 data frasa nomina yang berkaitan dengan istilah teknik mesin, dengan fokus pada analisis linguistik dan penerjemahan terhadap pasangan kalimat dalam bahasa sumber (Bahasa Indonesia) dan bahasa target (Bahasa Inggris). Hasil penelitian menunjukkan dominasi frasa nomina modifikatif sebesar 95%, yang mencerminkan kebutuhan akan presisi dalam istilah teknis. Sebaliknya, frasa koordinatif hanya ditemukan sebanyak 4%, dan frasa apositif hanya sebesar 1%. Teknik penerjemahan utama yang digunakan meliputi pure borrowing (40%) untuk istilah yang sudah distandardisasi secara internasional, diikuti oleh kombinasi established equivalent dan transposition (36%), serta established equivalent saja (11%). Kualitas terjemahan menunjukkan tingkat akurasi yang tinggi, dengan 97% data dinilai akurat (rata-rata skor 2,96). Sementara itu, 3% sisanya tidak akurat karena kesalahan konseptual dan ketidakkonsistenan padanan. Hasil ini sejalan dengan karakteristik teks teknis yang menekankan presisi dan efisiensi.

Kata kunci: *abstrak; frasa nomina; istilah teknik mesin; keakuratan; teknik penerjemahan.*



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

TABLE OF CONTENTS

COVER	i
PRONOUNCEMENT	ii
LEGITIMATION	iii
PREFACE	iii
CONSENT OF THESIS PUBLICATION FOR ACADEMIC INTERESTS	v
ABSTRACT	vi
ABSTRAK	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	x
LIST OF FIGURES	xi
CHAPTER I INTRODUCTION	1
1.1. Background of the Study	1
1.2. Statements of the Problems	4
1.3. Objectives of the Study	5
1.4. Limitations of the Study	5
1.5. Significances of the Study	5
CHAPTER II LITERATURE REVIEW	7
2.1. Translation Definition	7
2.2. Translation Techniques	7
2.3. Translation Quality	11
1. Accuracy	11
2.4. Phrase	12
2.5. Noun Phrase	13
2.5.1. Types of Noun Phrase	13
2.6. Abstract	14
2.7. Definition of Mechanical Engineering Terms	15
2.8. Previous Studies	18
2.9. Theoretical Framework	21
CHAPTER III RESEARCH METHOD	22
3.1. Research Methodology	22
3.2. Research Design	23



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

3.3. Data and Source of Data	23
3.4. Sampling Technique.....	24
3.5. Data Collection Techniques	25
3.5.1. Document Analysis	26
3.5.2. Focus Group Discussion (FGD)	27
3.6. Data Validity	28
3.6.1. Data Source Triangulation.....	29
3.6.2. Triangulation Method.....	29
3.7. Data Analysis	29
3.7.1. Domain Analysis	30
3.7.2. Taxonomy Analysis.....	31
3.7.3. Componential Analysis	33
3.7.4. Cultural Theme	35
CHAPTER IV RESULTS AND DISCUSSION	36
4.1 Results.....	36
4.1.1 Types of Noun Phrase Classification.....	36
4.1.2 Translation Technique	41
4.1.3 Translation Quality	54
4.2 Correlation between Types of Noun Phrase, Translation Technique, and Translation Quality.....	58
4.3 Discussion	63
4.3.1 Discussion of Types of Noun Phrases	63
4.3.2 Discussion of Translation Techniques.....	64
4.3.3 Discussion of Translation Quality	64
CHAPTER V CLOSING.....	66
5.1. Conclusions.....	66
5.2. Suggestions	66
REFERENCES.....	68
CURRICULUM VITAE	70
APPENDICES	71



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

LIST OF TABLES

Tabel 2.1 Accuracy Assessment Instrument	12
Table 3.1 Domain Analysis.....	30
Table 3.2 Taxonomy Analysis	32
Tabel 3.3 Componential Analysis	33
Table 4. 1 Types of Noun Phrase Classification	36
Table 4. 2 Translation Technique Results.....	41
Table 4.3 Accuracy of Quality Result.....	54
Table 4.4 Correlation between Types of Noun Phrase, Translation Technique, and Translation Quality.....	58





Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

LIST OF FIGURES

Figure 3.1 Analysis Model by Spradley (1980)	30
--	----





Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

CHAPTER I INTRODUCTION

1.1. Background of the Study

In vocational higher education, especially in engineering fields, English is a vital tool for communicating research findings through scientific writing. One essential component of a scientific paper is the abstract, which serves as the gateway to the research. An abstract must be written concisely, representing the core of the entire study. Therefore, its content and language must be accurate and reflect the research reliably (Fauzia, 2013).

In Indonesia, particularly at Politeknik Negeri Jakarta (PNJ), the Mechanical Engineering Department produces bilingual abstracts in Indonesian and English as part of the graduation requirement. However, the translation process, especially for technical terms embedded in noun phrases, poses a significant challenge. Mechanical engineering abstracts are dense with domain-specific terminology, which can cause difficulties in understanding the meaning of the phrase and finding its equivalent in English. This requires high accuracy in translation to ensure that the meaning does not change or cause ambiguity (Liswahyuningsih, 2021). While many studies have analyzed translation quality in manuals, textbooks, or general texts, very few have focused on the translation of abstracts, let alone abstracts specifically from mechanical engineering students. Even fewer have focused on the noun phrase structures that carry heavy technical content. Based on a literature review up to 2025, studies that directly analyze the accuracy of English translations of noun phrases in engineering abstracts remain scarce. However, even minor errors in translating technical terms can cause distortions in meaning that lead to misunderstandings in both professional and academic settings. Previous research by Fachruddin (2017) showed that technical terms in the form of phrases are twice as common as those in the form of single words, and translation techniques such as common equivalence, natural borrowing, and pure borrowing are frequently used.



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

PNJ's Mechanical Engineering Department is chosen as the research site not only due to accessibility, but also because of its strategic academic positioning. The department actively pursues internationalization goals. As such, English proficiency is emphasized, and bilingual abstracts are a reflection of that effort. This makes the translation process in this context both relevant and important to be studied. Furthermore, the rapid growth of mechanical engineering terminology, especially in systems and equipment, correlates with the advancement of global technology. Students who study in this field must frequently engage with new terms, making the abstract a rich source of technical vocabulary. Consequently, the quality of translation becomes crucial in preserving meaning and enabling global understanding.

Another concern is the increasing reliance on machine translation tools among students. While these tools can be helpful, they also present risks to translation quality and translator development. According to Defina (2019) students are increasingly using machine translation tools to assist in translation tasks, which calls for a deeper understanding of how these tools influence translation outcomes. Therefore, this study is conducted to analyze the types of noun phrases found in mechanical engineering abstracts, the translation techniques used to translate them into English, and the accuracy of those translations.

In translation, various techniques are applied to maintain the accuracy of meaning from the source language to the target language. Molina and Albir (2002) classify 18 translation techniques, including: cultural adaptation, addition of explanations, use of foreign terms, literal translation, and sentence structure changes. These various approaches allow translators to choose the most appropriate method to produce contextual and easily understandable translations. Translation quality is assessed based on its ability to convey meaning accurately and appropriately within the context. Nababan (2012) formulates three evaluation parameters: (1) Accuracy - the correspondence of meaning between the source text and the translation, (2) Acceptability - conformity with the rules of the target language and culture, and (3) Readability - ease of understanding by the reader.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

Based on previous studies, it is known that there has been no specific study on the translation of mechanical engineering terms in abstracts. Some relevant studies include: (1) Research by Fachruddin (2017) focusing on technical terms in the field of thermodynamics; (2) A study by Nur (2011) discussing mechanical engineering terms and issues in their translation; (3) Research by Farahsani (2024) aimed at analyzing the translation techniques used by students of the Mechanical Engineering Program at Muhammadiyah University Yogyakarta when translating texts from the book English for Engineering; (4) Research by Liswahyuningsih (2021) examining the use of translation techniques, particularly in the translation of noun phrases, using the translation technique theory of Molina and Albir; and (5) Research by Defina (2019) analyzing the linguistic aspects of abstract translations from English to Indonesian with the help of Google Translate. From initial observations, the abstracts of PNJ Mechanical Engineering students' theses are an important part of scientific documents. These abstracts are written in two languages, namely Indonesian and English. Because they are related to the field of engineering, many technical terms in these abstracts are in the form of noun phrases that have specific meanings in the context of mechanical engineering. This is important to study because inaccurate translation of technical terms can cause ambiguity or even misinterpretation that affects the understanding of the research content.

This study aims to evaluate the quality of translations of mechanical engineering terms in the form of noun phrases in mechanical engineering thesis abstracts. Through this analysis, it is hoped that translation techniques and the appropriateness of meaning in the context of mechanical engineering can be identified. Based on the initial data obtained, several examples of phrase translations were found that showed variations in translation techniques. For example:

- In the phrase “*sistem transmisi daya*,” translated to “power transmission system” the translator used transposition and common equivalents to produce a natural structure in English while retaining the technical meaning. “Power transmission” is a widely recognized engineering term, and “system” serves as the head noun, making this a fluent and accurate translation.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

- However, in the phrase “piston gear” which is translated directly as “piston gear”. The term is adopted directly from the source language without modification. Since “piston gear” is already a standard term in the field of mechanical engineering, borrowing is effective to retain technical accuracy and consistency with industry standards.
- Additionally, the phrase “*panel surya*” translated as “solar panel” demonstrates the application of established equivalent translation that is commonly recognized in both Indonesian and English technical discourse. “Solar panel” is the direct and proper counterpart of “*panel surya*,” reflecting shared usage in energy-related contexts and ensuring clarity without structural change.

From these findings, it can be concluded that the accuracy of translation techniques greatly affects the clarity of meaning. By conducting further research, the results of this study are expected to provide input for the development of teaching materials and the preparation of more accurate bilingual abstracts.

This study focuses on analyzing noun phrases containing mechanical engineering terms in the abstracts of PNJ Mechanical Engineering students' theses. Molina and Albir's (2002) translation technique theory was used to identify the techniques used in the translation process, while accuracy evaluation was conducted based on Nababan's (2012) translation assessment model. This study is important because there have been few studies specifically addressing the translation of mechanical engineering terms in the context of academic abstracts in the field of mechanical engineering, particularly in the form of noun phrases.

1.2. Statements of the Problems

The problem addressed in this study is that the translation of mechanical engineering terms in the abstracts of mechanical engineering students has been no previous study that specifically discusses the translation of noun phrases containing mechanical engineering terms in thesis abstracts. Therefore, this research is important to conduct. Based on this background, the research questions are:



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

1. What types of noun phrases related to mechanical engineering terms are found in the abstracts of mechanical engineering theses?
2. What translation techniques are used to translate phrases in the abstracts of mechanical engineering theses?
3. How is the quality of noun phrase translation in terms of accuracy of the abstracts in mechanical engineering thesis abstracts?

1.3. Objectives of the Study

Based on the problems and research questions that have been formulated, the objectives of this study are:

1. to identify the types of noun phrases related to mechanical engineering terms in the abstracts of mechanical engineering theses;
2. to identify the translation techniques used to translate these noun phrases;
3. to analyze the quality of the translation of noun phrases in terms of accuracy.

1.4. Limitations of the Study

Based on the research questions and objectives above, the scope of this study is as follows:

1. The study focuses on the English translations of noun phrases containing mechanical engineering terms found in the abstracts of final year students in the Mechanical Engineering Department at Politeknik Negeri Jakarta (2024).
2. The analysis of translation quality only covers the aspects of accuracy and does not explore the acceptability or readability of the translations.
3. The mechanical engineering terms are discussed only to provide conceptual clarity but are not the primary focus of the linguistic analysis in this study.

1.5. Significances of the Study

This research is expected to provide theoretical and practical significances for writers and readers as follows:

1. Theoretical Significance
 - contribute to translation studies, particularly in academic and technical contexts, by providing insight into the strategies students apply when translating complex noun phrases.



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

- serve as a reference for further research related to the translation of mechanical engineering terms in academic texts or other fields.
2. Practical Significance
 - providing recommendations to students and supervisors on improving the quality of thesis abstract translations;
 - providing input to translators or academic publication managers on the appropriate translation strategies for noun phrases to ensure more accurate and informative translations.





Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

CHAPTER V

CLOSING

5.1 Conclusions

This study analyzed the types of noun phrases, the translation techniques used, and the accuracy of translated noun phrases found in mechanical engineering abstracts at Politeknik Negeri Jakarta. Based on the findings, several key conclusions can be drawn:

1. The most frequently occurring noun phrase type in the data was modificative noun phrases, which dominate engineering abstracts due to the descriptive and compound nature of technical language. These phrases often describe systems, processes, and equipment in concise terms, reflecting the structure and intent of academic engineering writing.
2. The most frequently used translation technique was pure borrowing, followed by a combination of established equivalent and transposition, and then established equivalent. The prevalence of pure borrowing is linked to the global standardization of mechanical engineering terms and the limited number of officially accepted Indonesian equivalents. In contrast, combined techniques were often used to achieve both terminological consistency and grammatical fluency.
3. The translated noun phrases demonstrated a high level of accuracy, as evaluated by expert raters. This indicates that students in the Mechanical Engineering Department at PNJ are capable of producing high-quality English abstracts. Factors that may support this include effective academic supervision, exposure to technical English in their curriculum, and possibly the responsible use of digital tools.

Overall, the findings show that the translation of noun phrases in technical abstracts can be accurate and effective when students apply the appropriate techniques and understand the technical context of their writing.

5.2 Suggestions



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

Based on the findings and limitations of this research, the following suggestions are proposed:

1. For Future Researchers

Future studies can expand this research by analyzing noun phrases in other types of technical texts, such as scientific journals, manuals, or technical reports. Beyond noun phrases, researchers may also investigate the translation of other grammatical structures, such as verbal or adjectival phrases, within technical contexts. In addition, this study focused solely on the accuracy aspect of translation. Future research is encouraged to incorporate other dimensions of translation quality, such as acceptability and readability, to provide a more comprehensive evaluation. Researchers may also examine dominant terminologies that frequently appear in mechanical engineering texts to explore patterns in terminology use.

Considering the increasing reliance on digital tools, future research could investigate the influence of machine translation tools such as ChatGPT, DeepL, or Google Translate on the translation quality produced by students. Comparative studies across departments or educational backgrounds would also be valuable to assess differences in translation strategies and performance in vocational versus non-vocational contexts.

2. For Mechanical Engineering Students

Students are encouraged to strengthen their technical English proficiency by engaging more with authentic, English-language engineering materials such as manuals, articles, and standards. This will not only improve their vocabulary but also familiarize them with the structure and conventions of technical texts. While machine translation tools can offer support, students should be cautious not to rely on them blindly. Manual revision and understanding of context remain crucial to ensure the accuracy and appropriateness of translations.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

REFERENCES

- Baker, M. (2018). *In other words: A coursebook on translation* (3rd ed.). Routledge.
- Bowker, L., & Pearson, J. (2002). *Working with specialized language: A practical guide to using corpora*. Routledge.
- Cabré, M. T. (1999). *Terminology: Theory, methods, and applications*.
- Carter, N. (2014). *The use of Triangulation in Qualitative Research*. *Oncology Nursing Forum*, 41(5), 545–547.
- Catford, J. C. (1974). *A Linguistic Theory of Translation*. Oxford University Press.
- Chaer, A. (2007). *Linguistik Umum*. Jakarta: Rineka Cipta.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approach* (3rd ed.). SAGE Publications.
- Defina, D., Aisah, S., & Adam, S. H. (2019). Analisis kebahasaan hasil terjemahan abstrak berbahasa Inggris ke dalam bahasa Indonesia dengan Google Translate. *Prosiding Seminar Nasional Linguistik dan Sastra (SEMNAS)*, 131–144.
- Fachruddin. (2017). Analisis Terjemahan Istilah Teknik pada Buku Fundamental of Engineering Thermodynamics. *Prasasti: Journal of Linguistics*, 3(1), 1–18.
- Farahsani, Y., Setiawati, S. A. P., & Jaya, P. H. (2024). Translation Techniques of Mechanical Engineering Terms in English for Engineering book by Mechanical Engineering Students. *Proceedings of the International Conference on Vocational Education Applied Science and Technology (ICVEAST)*.
- Fauzia, F. (2013). Peran Pengajaran Bahasa Inggris dalam Pendidikan Vokasi. *Proceedings Seminar Nasional Pendidikan Vokasi 2013*, 78–86.
- Hartley, J. (2003). *Understanding Abstracts*. *Journal of Technical Writing and Communication*, 33(1), 73–88.
- International Organization for Standardization (ISO). (2009). *ISO 704: Terminology work – Principles and methods*.
- International Organization for Standardization (ISO). (2011). *ISO 10241-1: Terminological entries – General requirements*.
- Krueger, R. A., & Casey, M. A. (2015). *Focus group interviewing research methods*. University of Minnesota.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

- Liswahyuningsih, N. L. G. (2021). Analisis Teknik Penerjemahan Frasa Nomina Bahasa Indonesia ke dalam Bahasa Inggris. Prosiding Seminar Nasional Linguistik dan Sastra (SEMNALISA), Universitas PGRI Mahadewa Indonesia.
- Machali, R. (2009). Pedoman Bagi Penerjemah. Bandung: Mizan Pustaka.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded Sourcebook* (2nd ed.). SAGE Publications.
- Miller, J. (2002). *An Introduction to English Syntax*. Edinburgh: Edinburgh University Press.
- Moleong, L. J. (2007). *Metodologi Penelitian Kualitatif*. Bandung: PT Remaja Rosdakarya.
- Molina, L., & Hurtado Albir, A. (2002). Translation techniques: A dynamic and Functionalist Approach. *Meta: Journal des traducteurs*, 47(4), 498–512.
- Nababan, M. (2012). Translation Quality Assessment: A Study on the Translation of Cultural terms.
- Newmark, P. (2001). *Approaches to Translation*. Harlow: Prentice Hall.
- Nur, A. (2011). Istilah Teknis dan Permasalahannya dalam Penerjemahan Teks Akademik Bahasa Inggris ke Bahasa Indonesia. Universitas Hasanuddin.
- Ramlan, M. (2006). *Ilmu Bahasa Indonesia: Sintaksis*. Yogyakarta: U.P. Karyono.
- Ratnaningtyas, E. M., Ramli, Syafruddin, Saputra, E., Suliwati, D., Nugroho, B. T. Jahja, A. S. (2022). *Metode Penelitian Kualitatif*. Yayasan Penerbit Muhammad Zaini.
- Sager, J. C. (1990). *A Practical Course in Terminology Processing*.
- Sarwono, J. (2006). *Metode Penelitian Kuantitatif dan Kualitatif*. Yogyakarta: Graha Ilmu.
- Sugiyono. (2021). *Metode Penelitian Pendidikan*. Bandung: Alfa Beta.
- Sutopo. (2014). *Metodologi Penelitian Kualitatif HB*. Surakarta: UNS Press.
- Temmerman, R. (2000). *Towards New Ways of Terminology Description: The Sociocognitive Approach*.
- Widjono, H. S. (2007). *Kaidah Bahasa Indonesia yang Baik dan Benar*. Jakarta: PT Grasindo.



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

CURRICULUM VITAE



Syadni Alya Afifa was born in Jakarta on May 10, 2002. She completed her primary education at SDS TP Kencana (2014), continued at SMPIT Darul Quran Mulia (2017), and graduated from MAN 3 Jakarta in 2020. She is currently a final-year undergraduate student at Politeknik Negeri Jakarta, majoring in Business Administration with a concentration in English for Business and Professional Communication (S.Tr.Li).

For academic and professional correspondence, she can be contacted via email: syadni.alya.afifa@gmail.com

**POLITEKNIK
NEGERI
JAKARTA**



APPENDICES

© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta





© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
1.	ABS 1-01	Salah satu peralatan penting dalam operasional bongkar muat di Pelabuhan	One of the important equipment in loading and unloading operations at the Port	Modificative	Established Equivalent	2
2.	ABS 1-02	Penelitian ini bertujuan untuk menerapkan manajemen perawatan sistem penggerak Grab Ship Unloader (GSU)	The research is aimed at implementing Grab Ship Unloader drive system maintenance management	Modificative	Modulation and Natural Borrowing	3
3.	ABS 1-03	Proses RCM dimulai dengan identifikasi komponen kritis dan mode kegagalan...	The RCM process begins with identifying critical components and failure modes...	Modificative	Established Equivalent and Transposition	3
4.	ABS 1-04	...terutama pada bagian wire rope yang memiliki downtime kerusakan terlama.	...especially in the wire rope section which has the longest damage downtime.	Modificative	Pure Borrowing	3
5.	ABS 1-05	Perhitungan menunjukkan bahwa nilai MTTF untuk komponen boom adalah 16.060 jam...	Calculations show that the MTTF value for boom components is 16,060 hours...	Modificative	Pure Borrowing	3
6.	ABS 1-06	...sementara MTTR adalah 41,061 jam.	...while MTTR is 41,061 hours.	Modificative	Pure Borrowing	3
7.	ABS 1-07	Interval waktu penggantian komponen boom pada GSU1 dan GSU4 ditetapkan...	The replacement time interval for boom components on GSU1 and GSU4 was set...	Modificative	Established Equivalent and Transposition	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
8.	ABS 2-01	Penurunan kinerja turbin gas generator	The decline in the performance of the gas turbine generator	Modificative	Established Equivalent and Transposition	3
9.	ABS 2-02	untuk meningkatkan kinerja sistem turbin gas.	to improve the performance of the gas turbine system.	Modificative	Established Equivalent and Modulation	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

10.	ABS 2-03	Penelitian ini bertujuan agar mengetahui pengaruh overhaul pada unit turbin gas terhadap kinerja turbin gas yang menggunakan siklus Brayton.	This research aims to determine the effect of overhaul on gas turbine units on the performance of gas turbine that use the Brayton cycle.	Modificative	Established Equivalent and Transposition	3
11.	ABS 2-04	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor ,	The indicators used to analyze the effect of overhaul are compressor work ,	Modificative	Established Equivalent and Transposition	3
12.	ABS 2-05	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin	The indicators used to analyze the effect of overhaul are compressor work, turbine work	Modificative	Established Equivalent and Transposition	3
13.	ABS 2-06	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto ,	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network ,	Modificative	Creative Discursive	1
14.	ABS 2-07	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto, efisiensi kompresor ,	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network, compressor efficiency ,	Modificative	Established Equivalent and Transposition	3
15.	ABS 2-08	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto, efisiensi kompresor, efisiensi turbin ,	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network, compressor efficiency, turbine efficiency ,	Modificative	Established Equivalent and Transposition	3
16.	ABS 2-09	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto, efisiensi kompresor, efisiensi turbin, efisiensi termal ,	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network, compressor efficiency, turbine efficiency, thermal efficiency ,	Modificative	Established Equivalent and Transposition	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

17.	ABS 2-10	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto, efisiensi kompresor, efisiensi turbin, efisiensi termal, specific fuel consumption ,	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network, compressor efficiency, turbine efficiency, thermal efficiency, specific fuel consumption ,	Modificative	Pure Borrowing	3
18.	ABS 2-11	Indikator yang digunakan untuk menganalisis pengaruh overhaul adalah kerja kompresor, kerja turbin, kerja netto, efisiensi kompresor, efisiensi turbin, efisiensi termal, specific fuel consumption, dan heat rate .	The indicators used to analyze the effect of overhaul are compressor work, turbine work, network, compressor efficiency, turbine efficiency, thermal efficiency, specific fuel consumption, and heat rate .	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
19.	ABS 3-01	Penelitian ini bertujuan mengungkapkan akar penyebab kerusakan piston	This research aims to reveal the root cause of piston damage	Modificative	Established Equivalent and Transposition	3
20.	ABS 3-02	Proses inspeksi akhirnya dilakukan dan ditemukanlah kerusakan komponen pada engine di dalam ruang bakar.	The inspection process was finally carried out and damage to components in the engine inside the combustion chamber was found.	Modificative	Established Equivalent + Established Equivalent and Pure Borrowing	3
21.	ABS 3-03	Proses inspeksi akhirnya dilakukan dan ditemukanlah kerusakan komponen pada engine di dalam ruang bakar .	The inspection process was finally carried out and damage to components in the engine inside the combustion chamber was found.	Modificative	Established Equivalent	3
22.	ABS 3-04	Masalah berdasarkan pada data riwayat unit mengakibatkan kerusakan pada komponen engine .	Problems based on unit history data result in damage to engine components .	Modificative	Established Equivalent and Transposition	3
23.	ABS 3-05	Penelitian ini bertujuan mengungkapkan akar penyebab kerusakan piston yang menyebabkan	This research aims to reveal the root cause of piston damage which causes the engine to suddenly stop	Modificative	Pure Borrowing	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

		engine tiba-tiba mati pada unit wheel loader Liugong CLG856H.	on the Liugong CLG856H wheel loader unit			
--	--	--	---	--	--	--

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
24.	ABS 4-01	PT X merupakan perusahaan manufaktur industri yang memproduksi komponen kendaraan bermotor.	PT X is an industrial manufacturing company that produces motor vehicle components,	Modificative	Established Equivalent and Transposition	3
25.	ABS 4-02	salah satunya adalah disc brake.	including disc brakes.	Modificative	Pure Borrowing	3
26.	ABS 4-03	Untuk mengatasi hal tersebut, dilakukan analisis pengendalian kualitas	To address this issue, a quality control	Modificative	Established Equivalent and Transposition	3
27.	ABS 4-04	Faktor-faktor penyebab defect diidentifikasi dengan menggunakan Fishbone Diagram	The factors causing the defects were identified using the Fishbone Diagram	Modificative	Pure Borrowing	3
28.	ABS 4-05	Faktor metode disebabkan oleh perbedaan ketinggian die cutter	The method factor was caused by differences in the height of the die cutter,	Modificative	Pure Borrowing	3
29.	ABS 4-06	Faktor mesin disebabkan oleh keretakan atau patah pada punch holder,	The machine factor was caused by cracks or fractures in the punch holder,	Modificative	Pure Borrowing	3
30.	ABS 4-07	Untuk memperbaiki hal ini, upper dan lower shime disc brake holder	To improve this, upper and lower shime disc brake holders	Modificative	Pure Borrowing	3
31.	ABS 4-08	Check sheet control cutter disc brake juga diperkenalkan sebagai alat bantu referensi bagi operator.	Check sheet control cutter disc brake was also introduced as a reference tool for operators.	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
32.	ABS 5-01	Panel surya adalah semikonduktor yang dapat mengkonversi sinar matahari menjadi energi listrik.	Solar panels are semiconductors that convert sunlight into electricity.	Modificative	Established Equivalent	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

33.	ABS 5-02	Suhu pada permukaan panel juga mempengaruhi kinerja panel.	The surface temperature of the panel also affects panel performance.	Modificative	Established Equivalent and Transposition	3
34.	ABS 5-03	Penambahan solar tracker mampu meningkatkan jumlah intensitas yang diterima oleh panel.	The addition of a solar tracker can increase the intensity received by the panel.	Modificative	Pure Borrowing	3
35.	ABS 5-04	Penelitian ini menggunakan solar tracker single axis dan heatsink cooling fan .	This study uses a single-axis solar tracker and a heatsink cooling fan .	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
36.	ABS 6-01	Penelitian ini menganalisis perbandingan availability kinerja boiler selama 3 tahun.	This study analyzes the comparison of boiler performance availability for 3 years.	Modificative	Established Equivalent and Transposition	3
37.	ABS 6-02	Pembangkit Listrik Unit 1 di PT CCEPC 100 MW berlokasi di kawasan industri Morowali.	Unit 1 Power Plant at PT CCEPC 100 MW is located in the Morowali industrial area.	Modificative	Established Equivalent and Transposition	3
38.	ABS 6-03	Boiler yang diteliti yaitu jenis pulverized coal fired forced circulation sub-critical pressure .	The boiler studied is a pulverized coal fired forced circulation sub-critical pressure type .	Modificative	Established Equivalent and Transposition	3
39.	ABS 6-04	Data dikumpulkan melalui wawancara dengan foreman boiler yang diterjemahkan oleh juru bicara.	Data were collected through interviews with the boiler foreman , translated by a spokesperson.	Modificative	Established Equivalent and Transposition	3
40.	ABS 6-05	Parameter yang dianalisis meliputi Equivalent Availability Factor (EAF) .	The analyzed parameters include Equivalent Availability Factor (EAF) .	Modificative	Pure Borrowing	3
41.	ABS 6-06	Parameter yang dianalisis meliputi Equivalent Availability Factor (EAF), Capacity Factor (CF) .	The analyzed parameters include Equivalent Availability Factor (EAF), Capacity Factor (CF) .	Modificative	Pure Borrowing	3
42.	ABS 6-07	Parameter yang dianalisis meliputi Equivalent Availability Factor (EAF), Capacity Factor (CF), Plant Outage Factor (POF) , dll.	The analyzed parameters include Equivalent Availability Factor (EAF), Capacity Factor (CF), Plant Outage Factor (POF) , etc.	Modificative	Pure Borrowing	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
43.	ABS 7-01	Turbine Cooling Air (TCA) adalah suatu peralatan auxiliary gas turbin	Turbine Cooling Air (TCA) is an auxiliary gas turbine equipment	Modificative	Pure Borrowing	3
44.	ABS 7-02	Fungsi belt TCA untuk mentransmisikan tenaga dari pulley motor ke pulley fan.	The function of the TCA belt is to transmit power from the motor pulley to the fan pulley.	Modificative	Established Equivalent and Pure Borrowing	3
45.	ABS 7-03	Fungsi belt TCA untuk mentransmisikan tenaga dari pulley motor ke pulley fan.	The function of the TCA belt is to transmit power from the motor pulley to the fan pulley.	Modificative	Established Equivalent and Pure Borrowing	3
46.	ABS 7-04	Fungsi belt TCA untuk mentransmisikan tenaga dari pulley motor ke pulley fan .	The function of the TCA belt is to transmit power from the motor pulley to the fan pulley .	Modificative	Established Equivalent and Pure Borrowing	3
47.	ABS 7-05	Tujuan penelitian ini adalah untuk menentukan jenis dan ukuran roda tensioner yang sesuai untuk digunakan di belt TCA.	The purpose of this study is to determine the type and size of the wheel pulley tensioner suitable for use on the TCA belt.	Coordinative	Established Equivalent and Transposition	3
48.	ABS 7-06	Jenis belt tensioner yang cocok untuk sabuk TCA yaitu jenis tensioner pegas.	The type of belt tensioner suitable for the TCA belt is the spring tensioner type.	Modificative	Established Equivalent and Transposition	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
49.	ABS 8-01	Manajemen perawatan 1000 jam dump truck DK 16 model HD 785-7	1000-hour maintenance management of the DK 16 model HD 785-7 dump truck	Modificative	Established Equivalent, Transposition and Pure Borrowing	3
50.	ABS 8-02	Manajemen perawatan ini melibatkan pemeliharaan rutin seperti penggantian oli ,	This maintenance management involves routine maintenance such as changing the oil ,	Modificative	Transposition and Established Equivalent	3
51.	ABS 8-03	Manajemen perawatan ini melibatkan pemeliharaan rutin seperti penggantian oli, Filter udara ,	This maintenance management involves routine maintenance such as changing the oil, air filter ,	Modificative	Established Equivalent and Transposition	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

52.	ABS 8-04	Manajemen perawatan ini melibatkan pemeliharaan rutin seperti penggantian oli, Filter udara, Filter bahan bakar	This maintenance management involves routine maintenance such as changing the oil, air filter, fuel filter ,	Modificative	Established Equivalent and Transposition	3
53.	ABS 8-05	Manajemen perawatan ini melibatkan pemeliharaan rutin seperti penggantian oli, Filter udara, Filter bahan bakar dan Filter hidrolis	This maintenance management involves routine maintenance such as changing the oil, air filter, fuel filter, and hydraulic filter	Modificative	Established Equivalent and Transposition	3
54.	ABS 8-06	Preventive Maintenance ini harus dilakukan dengan benar harus merujuk pada Operational and Maintenance Manual (OMM) .	This preventive maintenance must be carried out correctly and must refer to the Operational and Maintenance Manual (OMM) .	Coordinative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
55.	ABS 9-01	PT Badak NGL mempunyai inspection program boiler yaitu biennial inspection program (BIP) tujuannya memeriksa komponen boiler	PT Badak NGL has a boiler inspection program, namely the biennial inspection program (BIP), to check the boiler components	Modificative	Established Equivalent and Pure Borrowing	3
56.	ABS 9-02	Hasil penelitian ditemukannya kegagalan dengan RPN high diantaranya scale tube ,	The results of the study found failures with high RPN including scale tubes ,	Modificative	Pure Borrowing	3
57.	ABS 9-03	Hasil penelitian ditemukannya kegagalan dengan RPN high diantaranya scale tube, leakage tube	The results of the study found failures with high RPN including scale tubes, leakage tubes ,	Modificative	Pure Borrowing	3
58.	ABS 9-04	Hasil penelitian ditemukannya kegagalan dengan RPN high diantaranya scale tube, leakage tube dan rupture tube .	The results of the study found failures with high RPN including scale tubes, leakage tubes, and rupture tubes .	Modificative	Pure Borrowing	3
59.	ABS 9-05	Penyelesaian inspection yaitu pelepasan cyclone separator	The completion of the inspection is the removal of the cyclone separator	Modificative	Pure Borrowing	3
60.	ABS 9-06	Penyelesaian inspection yaitu pelepasan cyclone separator dan baffle plate kedua sisi,	The completion of the inspection is the removal of the cyclone	Modificative	Pure Borrowing	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

			separator and baffle plate on both sides,			
61.	ABS 9-07	penggunaan alat inspeksi baru yaitu robotic crawler pipe inspection system ,	use of a new inspection tool, namely the robotic crawler pipe inspection system ,	Modificative	Pure Borrowing	3
62.	ABS 9-08	menambahkan prosedur pengukuran ketebalan oxide scale layer ,	adding a procedure for measuring the thickness of the oxide scale layer ,	Modificative	Pure Borrowing	3
63.	ABS 9-09	menambahkan prosedur pengukuran ketebalan oxide scale layer, pemeliharaan keseluruhan pipa boiler , dan tes radiografi nose tube boiler.	adding a procedure for measuring the thickness of the oxide scale layer, maintenance of the entire boiler pipe , and radiography tests of the nose tube boiler.	Modificative	Pure Borrowing	3
64.	ABS 9-10	menambahkan prosedur pengukuran ketebalan oxide scale layer, pemeliharaan keseluruhan pipa boiler, dan tes radiografi nose tube boiler .	adding a procedure for measuring the thickness of the oxide scale layer, maintenance of the entire boiler pipe, and radiography tests of the nose tube boiler .	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
65.	ABS 10-01	Penelitian ini melibatkan analisis dengan perhitungan karena menggunakan data numerik untuk merancang alat penukar kalor dengan metode LMTD.	This research involves analysis by calculation because it uses numerical data to design a heat exchanger with the LMTD method.	Modificative	Established Equivalent and Transposition	3
66.	ABS 10-02	Penelitian ini melibatkan analisis dengan perhitungan karena menggunakan data numerik untuk merancang alat penukar kalor dengan metode LMTD.	This research involves analysis by calculation because it uses numerical data to design a heat exchanger with the LMTD method.	Modificative	Established Equivalent	3
67.	ABS 10-03	Kondensat digunakan untuk memanaskan air yang kemudian air tersebut digunakan kembali dalam proses pemanasan ruang	Condensate is used to heat water, which is then reused in the process of heating the space	Modificative	Established Equivalent and Transposition	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

68.	ABS 10-04	Kondensat digunakan untuk memanaskan air yang kemudian air tersebut digunakan kembali dalam proses pemanasan ruang di greenhouse dengan bantuan kipas pada alat pemanas udara .	Condensate is used to heat water, which is then reused in the process of heating the space in the greenhouse with the help of a fan on the air heating device .	Modificative	Established Equivalent and Transposition	3
-----	--------------	--	--	--------------	--	---

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
69.	ABS 11-01	Proses oxygen stripper pada Unit 31 Naptha Processing Unit adalah seksi untuk menghilangkan kandungan O ₂ .	The oxygen stripper process at the Unit 31 Naptha Processing Unit is a section to remove O ₂ content.	Modificative	Established Equivalent and Transposition	3
70.	ABS 11-02	Pada Agustus 2023 PT. X melaksanakan pemeliharaan (PitStop) pada Unit NPU dan mengganti tube bundle pada kedua heat exchanger.	In August 2023, PT. X carried out maintenance (PitStop) on the NPU Unit and replaced the tube bundle on both heat exchangers.	Modificative	Pure Borrowing	3
71.	ABS 11-03	Pada Agustus 2023 PT. X melaksanakan pemeliharaan (PitStop) pada Unit NPU dan mengganti tube bundle pada kedua heat exchanger .	In August 2023, PT. X carried out maintenance (PitStop) on the NPU Unit and replaced the tube bundle on both heat exchangers .	Modificative	Pure Borrowing	3
72.	ABS 11-04	Berdasarkan hasil perhitungan overall heat transfer coefficient (U)	Based on the calculation of the overall heat transfer coefficient (U)	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
73.	ABS 12-01	PT. X merupakan salah satu perusahaan yang bergerak di bidang perakitan kendaraan niaga .	PT. X is a company engaged in the commercial vehicle assembly industry.	Modificative	Established Equivalent and Transposition	3
74.	ABS 12-02	Dalam proses produksi, perakitan kabin menjadi salah satu proses dari dua proses perakitan utama,	In its production process, cabin assembly is one of the two main assembly processes,	Modificative	Established Equivalent and Transposition	3
75.	ABS 12-03	terdapat satu jenis kecacatan yang berulang serta persentase terbesar	one recurring defect type was found with the highest percentage of	Modificative	Pure Borrowing	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

		dengan persentase cacat 13.1% dengan jenis kecacatan pipe clutch touch to bracket instrument panel .	13.1%, namely the pipe clutch touch to bracket instrument panel defect.			
--	--	---	--	--	--	--

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
76.	ABS 13-01	Pembangkit listrik Tenaga Uap (PLTU) merupakan pembangkit yang menggunakan energi uap sebagai penggerak turbin uap yang disambung dengan generator untuk menghasilkan listrik.	A Steam Power Plant (PLTU) is a power plant that uses steam energy to drive a steam turbine connected to a generator to produce electricity.	Modificative	Established Equivalent	3
77.	ABS 13-02	Pembangkit listrik Tenaga Uap (PLTU) merupakan pembangkit yang menggunakan energi uap sebagai penggerak turbin uap yang disambung dengan generator untuk menghasilkan listrik.	A Steam Power Plant (PLTU) is a power plant that uses steam energy to drive a steam turbine connected to a generator to produce electricity.	Modificative	Established Equivalent	3
78.	ABS 13-03	Salah satu komponen penting dari PLTU adalah Boiler Feed Pump Turbine (BFPT) .	One of the critical components of the PLTU is the Boiler Feed Pump Turbine (BFPT) .	Modificative	Pure Borrowing	3
79.	ABS 13-04	Hasil analisis menunjukkan bahwa telah terjadi mechanical looseness di BFPT.	The analysis results indicated that mechanical looseness had occurred in the BFPT.	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
80.	ABS 14-01	Front spar adalah sebuah rangka utama sebagai komponen pesawat yang terletak pada sayap.	The front spar is a main frame as an aircraft component located on the wing.	Modificative	Pure Borrowing	3
81.	ABS 14-02	Terdapat perbedaan total waktu proses produksi antara standar perusahaan yang tertuang dalam NCOD (Numerical Control Operator Document) , waktu standar, dan waktu aktual.	There is a difference in the total production process time between the company standard contained in the NCOD (Numerical Control Operator Document) , standard time, and actual time.	Modificative	Pure Borrowing	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

82.	ABS 14-03	Hasil penelitian menunjukkan bahwa mesin CNC DGAL tidak bekerja dengan baik.	The results showed that the DGAL CNC machine was not working properly.	Modificative	Natural Borrowing and Established Equivalent	3
83.	ABS 14-04	Setelah itu maka dilakukan preventive maintenance menggunakan metode TPM dan menerapkan 8 pilar untuk meningkatkan efektivitas pada mesin.	After that, preventive maintenance using the TPM method and applying the 8 pillars to improve machine effectiveness were carried out.	Modificative	Pure Borrowing	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
84.	ABS 15-01	Dalam era modern ini, kebutuhan akan sumber energi yang efisien dan ramah lingkungan semakin meningkat.	In the modern era, the demand for efficient and environmentally friendly energy sources is increasingly rising.	Coordinative	Natural Borrowing, Transposition, and Established Equivalent	3
85.	ABS 15-02	Salah satu teknologi yang memiliki potensi besar untuk memenuhi kebutuhan ini adalah Proton Exchange Membrane Fuel Cell (PEMFC) .	One technology that holds great potential to meet this demand is the Proton Exchange Membrane Fuel Cell (PEMFC) .	Modificative	Pure Borrowing	3
86.	ABS 15-03	Penelitian ini mengkaji pengaruh lebar saluran dan lebar rib pada desain serpentine flow field pada pelat bipolar terhadap kinerja PEMFC.	This research examines the impact of channel width and rib width in the design of the serpentine flow field on the bipolar plate on the performance of PEMFC.	Modificative	Modulation	2
87.	ABS 15-04	Penelitian ini mengkaji pengaruh lebar saluran dan lebar rib pada desain serpentine flow field pada pelat bipolar terhadap kinerja PEMFC.	This research examines the impact of channel width and rib width in the design of the serpentine flow field on the bipolar plate on the performance of PEMFC.	Modificative	Natural Borrowing	3
88.	ABS 15-05	Penelitian ini mengkaji pengaruh lebar saluran dan lebar rib pada desain serpentine flow field pada	This research examines the impact of channel width and rib width in the design of the serpentine flow	Modificative	Established Equivalent	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

		pelat bipolar terhadap kinerja PEMFC.	field on the bipolar plate on the performance of PEMFC.			
89.	ABS 15-06	Melalui simulasi Computational Fluid Dynamics (CFD) , berbagai desain flow field dianalisis untuk mengevaluasi distribusi aliran hidrogen dan tekanan.	Through Computational Fluid Dynamics (CFD) simulations, various flow field designs are analyzed to evaluate hydrogen flow distribution and pressure.	Modificative	Pure Borrowing	3
90.	ABS 15-07	Melalui simulasi Computational Fluid Dynamics (CFD), berbagai desain flow field dianalisis untuk mengevaluasi distribusi aliran hidrogen dan tekanan.	Through Computational Fluid Dynamics (CFD) simulations, various flow field designs are analyzed to evaluate hydrogen flow distribution and pressure.	Coordinative	Established Equivalent and Transposition	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
91.	ABS 16-01	Separator digunakan untuk memisahkan uap yang menuju turbin dan brine yang mengalir ke sumur injeksi.	Separators are used to separate the steam that goes to the turbines and the brine that goes to the injection wells.	Modificative	Established Equivalent	3
92.	ABS 16-02	Untuk mencegah ini, nilai Silica Saturation Index (SSI)	To prevent this, the Silica Saturation Index (SSI) value is	Modificative	Pure Borrowing	3
93.	ABS 16-03	Production Optimization Unit (POU) merupakan unit uji sumur untuk mengetahui karakteristik pada brine.	The Production Optimization Unit (POU) is a well test unit to determine the characteristics of the brine.	Modificative	Pure Borrowing	3
94.	ABS 16-04	Penelitian ini menyimpulkan bahwa nilai $SSI > 1$, artinya terjadi pembentukan silica scaling pada jalur injeksi	This study concludes that the SSI value > 1 , meaning that silica scaling formation occurs in the injection line.	Modificative	Established Equivalent	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
95.	ABS 17-01	Penelitian ini merupakan penelitian terapan yang bertujuan untuk merancang dan membangun sebuah	This is applied research aiming to design and build a blind spot monitoring system (BSMS)	Modificative	Established Equivalent and Transposition	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

		sistem blind spot monitoring system (BSMS)				
96.	ABS 17-02	menggunakan Arduino dan sensor ultrasonic HC-SR04 di Workshop Alat Berat Politeknik Negeri Jakarta untuk mendeteksi objek yang pada area titik buta pada alat berat.	using Arduino and HC-SR04 ultrasonic sensors at the Heavy Equipment Workshop of State Polytechnic of Jakarta to detect objects in the blind spot areas of heavy equipment.	Modificative	Established Equivalent and Transposition	3
97.	ABS 17-03	Sistem BSMS ini juga dilengkapi dengan LED RGB dan buzzer sebagai output dari sensor ultrasonic sebagai peringatan operator unit .	The BSMS is also equipped with an RGB LED and a buzzer as the output from the ultrasonic sensors to alert the unit operator .	Modificative	Established Equivalent	3
98.	ABS 17-04	Data dikumpulkan dengan melakukan eksperimen langsung dan dokumentasi di workshop alat berat Politeknik Negeri Jakarta.	Data collection was conducted through direct experiments and documentation at the Heavy Equipment Workshop of State Polytechnic of Jakarta.	Modificative	Established Equivalent	3
99.	ABS 17-05	Hasil dari penelitian ini adalah sebuah alat BSMS yang diterapkan pada salah satu unit di workshop alat berat Politeknik Negeri Jakarta yaitu unit alat berat Mini Excavator 302.5 Caterpillar .	The outcome of this research is a BSMS device applied to one of the units in the Heavy Equipment Workshop at the State Polytechnic of Jakarta, namely the Mini Excavator 302.5 Caterpillar heavy equipment unit .	Modificative	Established Equivalent and Transposition	3
100.	ABS 17-06	Alat BSMS mendeteksi objek pada area titik buta unit secara akurat dan output sesuai dengan rancangan program yang dibuat.	The BSMS device accurately detected objects in the unit's blind spot area , and the output matched the designed program.	Modificative	Established Equivalent and Transposition	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
101.	ABS 18-01	Wheel loader, juga dikenal sebagai loader , adalah jenis alat berat yang umumnya biasa digunakan dalam industri pertambangan	Wheel loaders, also known as loaders , are a type of heavy equipment commonly used in the mining industry	Appositive	Pure Borrowing	3



Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

102.	ABS 18-02	Differential adalah bagian dari sistem transmisi daya	The differential is part of the power transmission system	Modificative	Established Equivalent and Transposition	3
103.	ABS 18-03	Differential adalah bagian dari sistem transmisi daya yang berfungsi untuk menyalurkan tenaga putaran	The differential is part of the power transmission system that functions to channel rotation power from the propeller shaft	Modificative	Established Equivalent	3
104.	ABS 18-04	Differential adalah bagian dari sistem transmisi daya yang berfungsi untuk menyalurkan tenaga putaran dari propeller shaft ke poros roda belakang (rear axle) ,	The differential is part of the power transmission system that functions to channel rotation power from the propeller shaft to the rear axle ,	Modificative	Established Equivalent and Modulation	3
105.	ABS 18-05	Differential terdiri dari beberapa komponen, yaitu: drive pinion ,	The differential consists of several components, namely: drive pinion ,	Modificative	Pure Borrowing	3
106.	ABS 18-06	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft ,	The differential consists of several components, namely: drive pinion, differential pinion shaft ,	Modificative	Pure Borrowing	3
107.	ABS 18-07	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear ,	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear ,	Modificative	Pure Borrowing	3
108.	ABS 18-08	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case ,	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case ,	Modificative	Pure Borrowing	3
109.	ABS 18-09	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear ,	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear ,	Modificative	Pure Borrowing	3
110.	ABS 18-10	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier ,	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier ,	Modificative	Pure Borrowing	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

111.	ABS 18-11	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bantalan, mur penyetel bantalan,	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bearing, bearing adjusting nut,	Modificative	Established Equivalent and Transposition	3
112.	ABS 18-12	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bantalan, mur penyetel bantalan, oil seal, dan poros roda belakang.	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bearing, bearing adjusting nut, oil seal, and rear wheel shaft.	Modificative	Pure Borrowing	3
113.	ABS 18-13	Differential terdiri dari beberapa komponen, yaitu: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bantalan, mur penyetel bantalan, oil seal, dan poros roda belakang.	The differential consists of several components, namely: drive pinion, differential pinion shaft, side gear, differential case, differential pinion, ring gear, differential carrier, bearing, bearing adjusting nut, oil seal, and rear wheel shaft.	Modificative	Established Equivalent and Transposition	3
114.	ABS 18-14	Implementasi prosedur perawatan yang sistematis dapat memperpanjang umur komponen differential dan meningkatkan performa operasional wheel loader.	Implementation of systematic maintenance procedures can extend the lifespan of differential components and improve the operational performance of the wheel loader.	Modificative	Established Equivalent and Transposition	3

Data No.	Code No.	Source Language (SL)	Target Language (TL)	Type of Noun Phrase	Translation Technique	Score of Accuracy
115.	ABS 19-01	Permintaan produksi sensor proximity yang semakin meningkat...	The increasing demand for proximity sensor production...	Modificative	Established Equivalent	3
116.	ABS 19-02	Line produksi sensor proximity meliputi line assembly part, line hotmelt, line riveting, line inspection, dan line packing.	The proximity sensor production line includes the assembly part line, hotmelt line, riveting line, inspection line, and packing line.	Modificative	Established Equivalent and Transposition	3



© Hak Cipta milik Politeknik Negeri Jakarta

Hak Cipta :

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber :
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penulisan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar Politeknik Negeri Jakarta
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin Politeknik Negeri Jakarta

117.	ABS 19-03	Line produksi sensor proximity meliputi line assembly part, line hotmelt , line riveting, line inspection, dan line packing.	The proximity sensor production line includes the assembly part line, hotmelt line , riveting line, inspection line, and packing line.	Modificative	Established Equivalent and Transposition	3
118.	ABS 19-04	Line produksi sensor proximity meliputi line assembly part, line hotmelt, line riveting , line inspection, dan line packing.	The proximity sensor production line includes the assembly part line, hotmelt line, riveting line , inspection line, and packing line.	Modificative	Established Equivalent and Transposition	3
119.	ABS 19-05	Line produksi sensor proximity meliputi line assembly part, line hotmelt, line riveting, line inspection , dan line packing.	The proximity sensor production line includes the assembly part line, hotmelt line, riveting line, inspection line , and packing line.	Modificative	Established Equivalent and Transposition	3
120.	ABS 19-06	Line produksi sensor proximity meliputi line assembly part, line hotmelt, line riveting, line inspection, dan line packing .	The proximity sensor production line includes the assembly part line, hotmelt line, riveting line, inspection line, and packing line .	Modificative	Established Equivalent and Transposition	3
121.	ABS 19-07	Output rivet hotmelt rendah karena masih menggunakan mesin manual sehingga waktu fabrikasi masih cukup lama yaitu 5 detik per proses.	The hotmelt riveting output is low because it still uses a manual machine, resulting in a fabrication time of 5 seconds per process.	Modificative	Established Equivalent	3
122.	ABS 19-08	Penelitian ini membahas rancang bangun Auto Riveting Machine sebagai pengganti mesin rivet manual...	This study discusses the design and development of an Auto Riveting Machine to replace the manual riveting machine...	Coordinative	Established Equivalent and Pure Borrowing	3
123.	ABS 19-09	Penelitian ini membahas rancang bangun Auto Riveting Machine sebagai pengganti mesin rivet manual ...	This study discusses the design and development of an Auto Riveting Machine to replace the manual riveting machine ...	Modificative	Established Equivalent and Transposition	3