

**BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC DÂN LẬP HẢI PHÒNG**



ISO 9001:2015

KHÓA LUẬN TỐT NGHIỆP

NGÀNH: NGÔN NGỮ ANH

**Sinh viên : Phạm Thị Nghĩa
Giảng viên hướng dẫn: ThS. Bùi Thị Mai Anh**

HẢI PHÒNG - 2019

**BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC DÂN LẬP HẢI PHÒNG**

**A STUDY OF ENGLISH – VIETNAMESE TRANSLATION OF
JOURNAL ARTICLE ABSTRACTS**

**KHÓA LUẬN TỐT NGHIỆP ĐẠI HỌC HỆ CHÍNH QUY
NGÀNH: NGÔN NGỮ ANH**

**Sinh viên :Phạm Thị Nghĩa
Giảng viên hướng dẫn:ThS. Bùi Thị Mai Anh**

HẢI PHÒNG - 2019

**BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC DÂN LẬP HẢI PHÒNG**

NHIỆM VỤ ĐỀ TÀI TỐT NGHIỆP

Sinh viên: Phạm Thị Nghĩa

Mã SV: 1312751029

Lớp: NA1701

Ngành: Ngôn Ngữ Anh

Tên đề tài: A study of English – Vietnamese translation of journal
article abstracts

NHIỆM VỤ ĐỀ TÀI

1. Nội dung và các yêu cầu cần giải quyết trong nhiệm vụ đề tài tốt nghiệp (về lý luận, thực tiễn, các số liệu cần tính toán và các bản vẽ).

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. Các số liệu cần thiết để thiết kế, tính toán.

.....

.....

.....

.....

.....

.....

.....

.....

.....

3. Địa điểm thực tập tốt nghiệp.

.....

.....

.....

CÁN BỘ HƯỚNG DẪN ĐỀ TÀI TỐT NGHIỆP

Người hướng dẫn thứ nhất:

Họ và tên: Bùi Thị Mai Anh

Học hàm, học vị: Thạc Sĩ

Cơ quan công tác: Trường Đại Học Dân Lập Hải Phòng

Nội dung hướng dẫn:

A study of English – Vietnamese translation of journal article abstracts

Người hướng dẫn thứ hai:

Họ và tên:.....

Học hàm, học vị:.....

Cơ quan công tác:.....

Nội dung hướng dẫn:.....

Đề tài tốt nghiệp được giao ngày tháng năm

Yêu cầu phải hoàn thành xong trước ngày tháng năm

Đã nhận nhiệm vụ ĐTTN

Sinh viên

Đã giao nhiệm vụ ĐTTN

Người hướng dẫn

Phạm Thị Nghĩa

Bùi Thị Mai Anh

Hải Phòng, ngày tháng.....năm 2019

Hiệu trưởng

GS.TS. NGUYỄN *Trần Hữu Nghị*

PHẦN NHẬN XÉT CỦA CÁN BỘ HƯỚNG DẪN

1. Tinh thần thái độ của sinh viên trong quá trình làm đề tài tốt nghiệp:

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

2. Đánh giá chất lượng của khóa luận (so với nội dung yêu cầu đã đề ra trong nhiệm vụ Đ.T. T.N trên các mặt lý luận, thực tiễn, tính toán số liệu...):

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

3. Cho điểm của cán bộ hướng dẫn (ghi bằng cả số và chữ):

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

Hải Phòng, ngày ... tháng ... năm
Cán bộ hướng dẫn
(Ký và ghi rõ họ tên)

ACKNOWLEDGEMENTS

I would like to give my sincere thanks those who have taken part in my research and those who have given their support and encouragement during the time I have conducted this study.

First of all, I would like express my special thanks to my supervisor Bui Thi Mai Anh, M.A. for her careful reading, critical and useful comments and continental guidance and patience throughout my thesis. Her contribution plays an important role in the completion of my study. Without her guidance I wouldn't have successfully completed my study.

Secondly, I wish to thank the whole English department staff of HaiPhong Private University for their useful lectures and advice.

Lastly, I also would like to thank my family and friends for their encouragement and precious time during my study.

LIST OF ABBREVIATIONS

SL: Source language

TL: Target language

ST: Source text

TT: Target text

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
LIST OF ABBREVIATIONS	ii
LIST OF TABLES	iii
PART A – INTRODUCTION	
1. Rationale of the study	
2. Scope of the study	
3. Aims of the study	
4. Research questions	
5. Methods of the study	
6. Organization of the study	
PART B - DEVELOPMENT	
CHAPTER I: THEORETICAL BACKGROUND	
1. Definition of Translation.....	
2. Translation procedures and strategies	
2.1. Transference	
2.2. Shifts or transposition	
3. Technical translation	
3.1. Definitions of technical translation	
3.2. Translation method of technical terms	
4. Translation of Neologism	
4.1 Definition of Neologism	
4.2. Types of Neologisms and the translation.....	
4.2.1. Old words with new senses	
4.2.2. Derived words	
4.2.3. Acronyms	
5. The translation of non-equivalence at word level	
5.1. Definition and common problems of non- equivalence at word level.....	

5.1.1. The SL concept is not lexicalized in the TL	
5.1.2. The SL is semantically complex	
5.1.3. Differences in form	
5.2. Strategies for non-equivalence by professional translators	
5.2.1. A loan translation	
5.2.2. Loan word without an explanation	
5.2.3. Loan transcription	
6. Terminology	
6.1. Definition of terminology	
6.2. Accurateness	
6.3. Systematism	
6.4. International	
6.5. Nationalism	
6.6. Popularity	
6.7. Creation of terminology	
6.8. The distinction between terms and words.....	
7. Journal-article	

**CHAPTER II: TERMINOLOGIES IN THE TRANSLATION OF
SELECTED JOURNAL ARTICLE ABSTRACTS.....**

1. Classification of terminology in the translation of select journal-article abstract.....	
1.1. One-word terms and Neologisms.....	
1.2. One-word terms in the form of verb	
1.3. One-word terms in the form of noun	
1.3.1. Subtechnical terms	
1.3.2. Scientific acronyms.....	

**CHAPTER III: SOME STRATEGIES IN THE TRANSLATION OF THE
SELECTED JOURNAL-ARTICLE ABSTRACTS**

1. Loan translate
2. Literal Translation
3. Tranposition
4. Modulation

PART C: CONCLUSION.....

1. Recapitulation.....
2. Implications of the study
3. Concluding remarks
4. Limitations of the study
5. Suggestions for further study

REFERENCES

PART A - INTRODUCTION

1. Rationale of the study

Translation nowadays plays a more and more important role as a bridge shortening the gaps between two or more languages. Whether for daily interaction to entertainment or academic purposes, it is undeniable that bi-lingual text/speech is essential.

As an introduction and vital part of a research article, journal-article abstract and its translation and the translation of scientific texts in general is a guide to academic readers before the articles themselves. However, the study of this kind of translation is still limited to individual researches. Moreover, in an introductory summary as abstract, many of the concepts, or in other words, terminology cannot be fully explained; therefore, a study into how the translators deal with this matter would be worth looking at.

This present study has made an attempt to study English-Vietnamese translation of journal-article abstracts which embraces its most important aspects, namely, the translation method of the terminology.

The study starts with some related concepts in translation to lay the foundation for the research, particularly, the translation methods, procedures and equivalence are of great importance. Then, in the main part, the study comes to investigate the translation of selected journal-article abstracts with focus on their terminology and translation strategies. The main part deals with the strategies of the translation of scientific texts in general and journal-article abstracts in particular.

For these listed reasons, the study is focused to study English-Vietnamese translation of journal-article abstracts for this final graduation thesis with the expectation of that the study can contribute to translation theory in general view and translation of journal-article abstracts in particular.

2. Scope of the study

The study is limited to the revisit of theories of translation, especially those of scientific texts and the application of them to look at the translation of journal-article abstracts. Four abstracts are collected to support for the research.

More specially, the study focuses on terminology translation; the equivalence achieved and the process employed in translation of journal-article abstracts. The equivalence for terminology examined in this paper is limited to word level only.

3. Aims of the study

The study is aimed at:

- Revisiting translation study, especially translation theory of scientific text and terminology to avoid the confuse at meaning of terms on word level only.
- Looking at the procedure and equivalence of terminology translation of terminology of the chosen journal-article abstracts from English into Vietnamese.
- Providing some suggestions for translating term in journal-article abstract to achieve an accurate, unambiguous translation based on the results of the study.

4. Research questions

The objectives above will be achieved through answering the following questions:

- What are the common types of equivalence used in the translation of the chosen journal-article abstracts?
- What are the strategies employed to achieve these types of equivalence?

5. Methods of the study

In order to achieve the goal of the study, the main method is quantitative data analysis. The source of data is documented gathered then analyzed to ensure both qualitative and quantitative properties of the study. Data is categorized into patterns as the primary basis for organizing and reporting results. Qualitative data analysis allows the researcher to study terms clearly. It also enables multiple analytic strategies.

Firstly, the study goes through a number of theories on translation to build up a theoretical background for the paper.

Then, as it was stated in the aims and scope of the study, development bases on clarifying and analyzing journal-article abstracts in particular and scientific in general. Therefore, to accomplish the thesis, a flexible combination of methods is employed, which embraces reference to publications, and description of results.

6. Organization of the study

The study consists of three main parts:

Part A - Introduction

The rationale of the study is given in this part. It also explains the scope, aims, method and organization of the study.

Part B - Development

Chapter I: Theoretical background

This chapter forms the theoretical background of the study, which looks at the theory of translation, terminology and translation equivalence, translation method and procedures to study English-Vietnamese translation of journal-article abstracts.

Chapter II: Terminology achieved in English-Vietnamese translation of journal-article abstracts

This chapter provides details of terminology achieved during the translation of English-Vietnamese of journal-article abstracts.

Chapter III: Some strategies employed for the translation of English-Vietnamese of journal-article abstracts.

This chapter looks at some strategies professional translators employ to translate the selected English-Vietnamese journal-article abstracts.

Part C – Conclusion

This part summarizes the study, its theoretical background, data analysis and findings. Moreover, the limitations of the study and suggestions for further research to tackle these limitations are also provided.

PART B - DEVELOPMENT

CHAPTER I: THEORETICAL BACKGROUND

1. Definition of Translation

Although the theory of translation has been discussed by different authors under different studies, agreement still exists in the following viewpoints.

Both Tudor, as cited in Duff (1989), and Hatim; Mason (1990) consider translation as a communicative activity which convey messages across linguistic and cultural barriers (Tudor) and takes place within a social context (Hatim; Mason).

In a more detailed manner, Catford (1967), in his book *A Linguistic Theory of Translation*, defines translation as the placement of textual material in one language (source language) by equivalent textual material in another language (target language). Holding the same opinion, Wills (1982) argues, Translation is a procedure which leads from a written source language text (SLT) to an optimally equivalent target language text (TLT).

Nida, E.A. (1975) claimed: “translating consists in producing in the receptor language that closest natural equivalent to the message of the SL, first in meaning second in style”.

Those definitions above though differ from their expressions; they all share the same essence of translation which lies in the preservation of semantic, pragmatic, and textual aspects of meaning across two different languages.

1. Translation procedures and strategies

According to Newmark (1988), translation procedures are used for the translation of sentences and the smaller units of language. The followings are the translation strategies and procedures proposed by Newmark:

- Transference
- Naturalization
- Cultural equivalent

- Descriptive equivalent
- Synonymy
- Through-translation
- Shifts or transpositions
- Modulation
- Recognized translation
- Translation label
- Compensation
- Componential analysis
- Reduction and expansion
- Paraphrase
- Other procedures
- Couplets

Some of these procedures are often employed in the translation of terminology.

2.1. Transference

Transference is the process of transferring a SL word to a TL text. The translators have to decide whether or not to transfer a word unfamiliar in TL, which in principle should be a SL cultural word. Words and expression that are normally transferred are cultural concepts or objects to give local color, to attract reader, to give a sense of intimate between the text and the reader. Most of the acronyms and eponyms investigated in the text book are translated by transference.

For example: EPS (Electrical Power system), PTC2 (Power transmission Company 2), HMM (Hidden Markov Models), VQ (Vector Quantization), PES (Potential energy surfaces), ISO (International Standard Organization).

2.2. Shift or transpositions

Shift is the term proposed by Catford, whereas transpositions by Vinay; Darbelnet (1958) is the procedure which is applied when the translation involves a change in grammar from SL to TL. There are four types of shifts/ transposition:

- The change from singular to plural or in the position of the adjective;

- The change when the SL grammatical structure does not exist in the TL, for example, the gerund or the active or passive participle construction which are normally translated by a clause in TL;

- The change where the literal translation is grammatically possible but may not accord with natural usage in the TL;

- The replacement of a virtual lexical gap by a grammatical structure. For instance, the Vietnamese equivalent of the compound noun unsecured stock in English is the clause chứng khoán không được bảo đảm.

In summary, above are popular procedures used in the translation of terminology from English into Vietnamese.

3. Technical translation

3.1. Definitions of technical translation

According to Newmark (1988) Technical translation is one part of specialized translation; it is primarily distinguished from other forms of translation by terminology, although terminology usually only makes up about 5-10% of a text.

Sofer (1999) claims that the translation of a text may be called technical when it requires specialized terms in a particular field.

From the definitions given by Newmark and Sofer, it is clear that specialized terminology in a text being translated is the first signal of technical translation

3.2. Translation method of technical terms

Newmark (1988) suggests some useful steps for technical translation. First of all, it is necessary to read it first to understand it and then to assess it, its degree of formality, its intention, the possible cultural and professional differences between the readership and the original one. The translator also needs to account for everything, every word, every figure, letter and punctuation mark.

During the process of translation there may be words and structures containing existential problems. Therefore, Newmark recommends that translators should pay attention to words with prefixes or suffixes. Also, it is essential for

translators to take into account semi-empty words; verbs required a recasting of the TL sentence and pun words.

4. Translation of Neologisms

4.1. Definition of Neologisms

As Newmark (1988) claimed: “Neologisms can be defined as newly coined lexical units or existing lexical units that acquire new sense”. The main reason that leads to the arrival of neologisms is that new objects and processes are continually created in technology, new ideas and variations on feeling come to the media and new terms from the social science, slang, dialect and transferred words come into the main stream of language. Newmark also proposes twelve types of neologisms and the translation of each type.

4.2. Types of Neologisms and the translation

- Old word with new senses: words, collocation
- New coinages
- Derived words
- Abbreviations
- Collocations
- Eponyms
- Phrasal words
- Transferred words
- Acronyms
- Pseudo-neologisms
- The creation of neologisms

The followings are the most popular types of neologism which appear in journal-article abstracts.

4.2.1. Old words with new senses

These words do not normally refer to new objects or processes and are normally non-cultural, so they are rarely technological. They are translated either by word that already exist in the TL, or by a brief functional or descriptive term.

For example: conveyer (băng tải), backstepping (chuyển động bám quỹ đạo), and function (hàm).

Existing collocations with new senses may be cultural or non-cultural; if the concept exists in the TL, there is usually a recognized translation or through-translation

For example: break – sự sứt giá.

If the concept does not exist

For example: call money – tiền gửi không kỳ hạn or the TL speakers are not yet aware of it, an economical descriptive equivalent has to be given.

4.2.2. Derived words

Newmark (1988) claims that: “The great majority of neologisms are words derived by analogy from ancient Greek and Latin morphemes usually with suffixes such as: ismo, -ismus, -ija, etc., naturalized in the appropriate language”.

This word-forming procedure is employed mainly to designate scientific and technological rather than cultural institutional terms. A great number of scientific terms investigated are noun with suffixes -er, -or, -ee to indicate people, employer, creditor, transferee.

4.2.3. Acronyms

Newmark (1988) defines an acronym as the initial letters of words that form a group of words used (vertiginously) for denoting an object, institution or procedure. Sometimes, the acronyms can be typically coined for the text and can be found within the text therefore it is not necessary to look for it in the various reference books.

In journal-article abstracts, there are several acronyms of these kinds such as: WMO (World Meteorological Organization), CPSC (Consumer Product

Commission), FTC (Federal Trade Commission), FRB (Federal Reserve Bank). Besides, we can find several terms being internationalisms in some journal-article abstract like: WB (World Bank), WTO (World Trade Organization), ISO (International Standard Organization). Acronyms which stand for institutions and names like these are usually transferred.

5. The translation of non-equivalence at word level

When doing the translation in general and translation of terminology in particular, it is really necessary to find out whether the term has an equivalent which meets the criteria of terminology. In fact there are many cases in which it is impossible to find equivalent for certain terms and this is one of the difficulties that translator often meet in their translation. Many linguistic translators have mentioned this issue and among them Mona Baker is one of the most prominent with his experience in this problem.

5.1. Definition and common problems of non- equivalence at word level

According to Baker (1994) - equivalence at word level means that the TL has no direct equivalent for a word which occurs in the source text. Baker, M. (1994)

Baker states that several problems are found in translation and these problems lead to the appearance of non-equivalence:

- Culture-specific concepts
- The SL concept is not lexicalized in the TL
- The SL is semantically complex.
- The source and TL make different distinctions in meaning.
- The TL lacks a super-ordinate.
- The TL lacks a specific term.
- Differences in physical or interpersonal perspective.
- Differences in expressive meaning.
- Differences in forms
- Differences in frequency and purpose of using specific forms.

- The use of loan words in the source text.

Some of this non-equivalence often exists in dealing with the translation of terminology.

5.1.1. The SL concept is not lexicalized in the TL

The concept expressed in the SL is understood by people in the TL. However there has been no specific word that is it has not been “lexicalized” in the TL. The word marketing, for example, has no really equivalent in Vietnamese, although it is understood as “gathering of buyers and sellers of provisions”.

5.1.2. The SL is semantically complex

A single word which consists of a single morpheme can sometimes express a more complex set of meanings than a whole sentence. We do not usually realize how semantically complex word is until we have to translate it into a language which does not have an equivalent for it.

Baker, M. (1994) an example of an English word “biosensor” - (cảm biến từ sinh học) for example, has no equivalent in Vietnamese therefore it is often paraphrased.

5.1.3. Differences in form

There is no equivalent in the TL for a particular form in the SL. Certain suffixes and prefixes which convey propositional and other type of meaning in English often have no direct equivalent in other language.

Baker, M. (1994) several suffixes contributing to the meaning of the words in the textbook investigated are easy to paraphrase propositional meaning, but difficult to spell out other types of meaning.

For example: The words which denote people such as vector, sensor, and transferen. The -er, -or, -ee in Vietnam have no direct equivalent in producing such form so it is often replaced by a paraphrase, depending on the meaning they convey.

5.2. Strategies used by professional translators in dealing with non-equivalence

In dealing with various types of non-equivalence, a number of strategies have been employed as follows:

- Translation by a more general word.
- Translation by a more neutral, less expressive word.
- Translation by cultural substitution.
- Translation using a loan word or a loan word plus an explanation.
- Translation by paraphrase using a related word.
- Translation by paraphrase using unrelated word.
- Translation by omission.
- Translation by illustration.

(Baker, 1994) Of these strategies, translation using a loan word or a loan word plus an explanation, translation by paraphrase using a related word, translation by paraphrase using unrelated word and translation by omission are the most common in translation of scientific terms.

Loan translation is most preferable in dealing with terminology. This is also known as the process of “borrowing” and the words which are borrowed are called loan words. Throughout the history of any languages, most of the loan words are professional or technical terms of all branches.

English itself has thousands of words borrowed from other languages such as: “force majeure” from French “sauna” from Finnish, “siesta” from Spanish. Similarly, in Vietnamese language the number of loan words is remarkable, mostly from Chinese, French and English.

For example: “matxa” from French, “taxi” from English, “son hào hải vị” from Chinese, “su mô” from Japanese, etc.,

There are many reasons to explain why one language borrows words from the other but the most noticeable is that these words denote specific concepts which are totally strange to users of the borrowing language. As in the case of

Vietnamese people, they may be have never eaten pizza, hamburger or drink whisky before they see them in foreign country and appropriated them along with their names.

These are the most straightforward types of borrowing; however borrowed words may appear in the other forms such as the borrowed word “mát-xa” in Vietnamese. Therefore, there are many ways to form borrowed words like constructing a loan translation; loan transcription or borrowing directly with or without an explanation.

5.2.1. A loan translation

A loan translation is the way that a new word is constructed by taking a foreign word as a model and translating it morpheme by morpheme. It is said to be the most popular and appropriate way to assimilate foreign words.

For instance: the word “black market” is translated as “chợ đen”, “White House” as “Nhà Trắng”, “supermarket” as “siêu thị”.

Yet, the creation of word meaning from English into Vietnamese in this way is not always possible as it may causes some difficulties in understanding the propositional meaning of the word.

5.2.2. Loan word without an explanation

It is easy to realize that many Vietnamese people like using loan words from other languages directly without an explanation. These words are written in the same way as in the source language and pronounced as the native words.

For example: the words “fax”, “bar”, “computer” are spoken on the mass media and understood by hearers widely.

This is one of the good ways to preserve the source language meaning; however, it may cause troubles in writing and pronouncing for Vietnamese users.

5.2.3. Loan transcription

In order to avoid borrowing directly, translators use another way to solve out the problem of loan words, that is, loan transcription.

For example, the loan words in Vietnamese “check” – “séc”, “massage” – “mát – xa” are normally written with or without a hyphen.

This translation seems to be easier for users of the target language to read as well as to write loan words, yet, there is no unique rule to regulate their writing in target language resulting to the free-style of writing.

6. Terminology

6.1. Definition of terminology

Up to now there are various definitions of terminology by many linguists. In the Russian Encyclopedia (1976) terminology is defined as “a word or a combination of words that denotes the concept precisely and its relationship with other concepts in a specific area. Terminology is a specialized and restricted expression on things, phenomena, characteristics, and the relationship in a specific profession”.

This definition has many features in common with those approached by many Vietnamese linguists such as the one proposed by Nguyen Van Tu (1960): “Terminology is a word or combination of words that is used in science, technology politics, art and it has a specific meaning, denotes precise concepts and names of the above-mentioned scientific areas”. Do Huu Chau (1998) claimed: “Terms are specialist words used within a scientific field, a profession or any technological field”. According to Nguyen Thien Giap (1981), “Terminology is a section of special lexis of a language. It consists of fixed words and groups of words which are accurate names of concepts and subjects belonging to different specialized fields of human beings”.

It is clear that though these definitions are given at different times and from different situations, they all share the common characteristics of terminology. These are special linguistic units in specialized fields or branches of human knowledge. Not only that, terminology is also important lexicon in each language. Terminology can show the development of science, technology of that society.

6.1.2. Characteristics of terminology

As a special unit in the lexical system of language, terminology has its own distinctive features. According to many linguists, terminology should have the following qualities: accurateness, systematism, internationalism, nationalism, practicality and popularity.

6.2. Accurateness

The first quality of terminology is accurateness, that is, it expresses a scientific concept or definition concretely and precisely so that it can help to avoid the misunderstanding one concept for another. It is necessary for each term in a typical professional scale, denotes only one concept in that system.

The meaning of a term is normally the combination of linguistic signals not only the sum of its component's meanings. Luu Van Lang (1977) claimed that each linguistic signal poses one basic nuclear meaning and vice versa a concept also has a typical linguistic signal in a concrete situation. Newmark (1998) also said that concept-words are notorious for their different meanings in various technologies.

Therefore, when a term is created in a specific field, it is necessary to take into account its homophone or synonymy which is often seen in linguistics. For instance, in literature "title" – "tiêu đề" is understood as name of a book, work of art, whereas, in economic language it is a right to ownership of property with or without possession and "quyền sở hữu" is typical term in this field.

In short, it is advisable to bear in mind the one-to- one equivalent between a concept and a term in the translation of terminology.

6.3. Systematism

Systematism is the second criterion of a scientific term. As a part of a language, each term has its own position in the system of concepts and belongs to a terminological system. Each term requires its meaning in the relationship with other terms in its system. Once separated from its system, its meaning is vague.

Therefore, systematism is seen as one of the most important features of terminology. There is the difference in the viewpoints about the characteristics of

terminologies among terminologists. Some say the typical characteristic of terminology is the systematic formation, whilst others claim that it is the feature of content. However, it is the combination of both content and expression form. It is impossible to separate a concept from the system to make a term but it determines its position in the system.

In the system of scientific terms suffixes -er, -or, -ee are used to indicate people, thus there are employer, creditor, transferee.

6.4. Internationalism

As mentioned above, terms are special words expressing common scientific concepts. Together with the development, cooperation and scientific and technological exchanges among countries throughout the world terms are internationalized. The globalization enables terminology to be used more popularly in different languages so as to make the international science develop faster. As a result of this process, there exists a number of terms being internationalized in different languages namely medicine (names of illness, medicines, physics, telecom, computer and especially in business and commerce such as scientific acronyms including GDP (Gross Domestic Product), WTO (World Trade Organization), CIF (Cost Insurance Freight).etc.,

In a word, these are the important characteristics of terminology in their common use. Based on the criteria of terminology, each language may require other principles in accordance with its culture. Accordingly, terminology in Vietnamese is not an exception; it has its typical characteristics including nationalism and popularity.

6.5. Nationalism

It is undeniable that term is special linguistic unit of a language used in specific profession; it clearly belongs to national language. As a result, terminologies in Vietnamese should be imbued with Vietnamese culture and characteristics of Vietnamese language. They should be appropriate to Vietnamese people from the lexicology to the grammatical composition.

6.4. Popularity

It is this characteristic of terminology which can bring scientific and technological progress to all people. As a component of linguistics, terminology plays an important role in pushing up the development of science, hence it should be comprehensible to all people in its way of reading, writing, speaking and memorizing.

In summary, the general characteristics of terminology have been reviewed. They are the vital principles in the creation and existence of terminologies in science and technology.

6.5. Creation of terminology

According to the International Standardization Organization (ISO 1988), the following factors are of essential consideration in the creation of terminology.

Firstly, terms must persistently show typical features of the concepts they denote so as to bring about the exact reference. In addition, they need to be scientific to avoid giving rise to homonymy. Besides, terms should be lexically systematic and conform to the phonological and morphological rules of the language.

Furthermore, terms should follow the common rules of word-formation of the language, that is, they should allow composition and derivation where necessary.

Lastly, the meaning of term should be context-free. Term creation, including primary and secondary, is under various influences and subject to different motivations. When a new concept appears, primary term formation is created meanwhile secondary term formation appears to name the monolingual revision of a given terminology or the terms in TL after a process of transferring knowledge from one linguistic community to another.

It is common knowledge that technological terminology is volatile due to the changes and continual development of science and technology. Both primary and secondary term formation in technology is affected by a proliferation of variants

and synonyms which occur to satisfy the need for popular versions of scientific terms and product differentiation.

6.6. The distinction between terms and words

It is necessary to distinguish between terminology and ordinary words. Baker (1998) claims that: “Terms differ from words in that they are endowed with a special form of reference, namely that they refer to discrete conceptual entities, properties, activities or relations which constitute the knowledge space of a particular subject field.”

In addition, meanwhile words function in general reference or a variety of subject fields, terms have special reference within a particular discipline, and they keep their lives and meanings only when they serve the system of knowledge that create them.

Despite the distinction between terms and words mentioned above, the boundary between them is not a clear cut, as many terms become ordinary words when they are closed to daily life and used with high frequency, and many words become terms when they are used in specialized field.

7. Journal-article abstract

According to Cleveland, 1983 [4, p.104.] “An abstract summarizes the essential contents of a particular knowledge record and is a true surrogate of the document”. A similar definition is given by (Graetz, 1985) [6, p.123]: “The abstract is a time saving device that can be used to find particular parts of the article; ... if comprehensive enough, it might replace the article”. There is also a simpler definition of an abstract is accepted “a concise representation of a document’s contents to enable the reader to determine its relevance to special information” (Johnson, 1995) (14, p.44).

Swales (1990) considers the process of writing an abstract to be a “rite de passage” for gaining entry to the scientific community via a demonstration of increasing mastery of the academic dialect. As Weissberg; Buker’s [28, p.184]

definition “the abstract is actually the first section of a report, coming after the title and before the introduction.

The abstract provides the reader with a brief preview of your study based on information from the other sections of the report”. Hyland and Tse (2005) also mentioned the abstract as a genre central to disciplinary knowledge-making and academic writing for, after the title, it is generally the readers’ first encounter with a text and often the point where they decide whether to look further at the accompanying paper, or to ignore it.

Regardless of the differences among the definitions mentioned above, they all highlight the use of abstracts as filtering devices. In the present days, people are constantly being bombarded by large amounts of information. Scientists and academics use abstracts to filter the existing literature when conducting research into a certain topic or when trying to keep up to date with the latest advances in their field of interest. On the basis of the abstracts, they can decide if an entire document is worth reading or not.

The process of writing a journal-article abstract is the same as the process of translating a journal-article abstracts. So the papers conduct this as the survey of finding the solutions for the translation of journal-article abstracts.

Therefore, the study is carried out to find the moves in an abstract, based on these, the paper finds out the steps of translation of a journal-article abstract.

CHAPTER II: THE TERMINOLOGY ACHIEVED IN ENGLISH- VIETNAMESE TRANSLATION OF SELECTED JOURNAL - ARTICLE ABSTRACTS

1. Classification of terminology in the translation of select journal-article abstracts.

Terminology in the selected abstracts can be classified into two groups according to their grammatical compositions including one-word terms and above-word-level terms.

1.1. One-word terms and Neologisms

In English technical and scientific terms which are formed of one word hold a remarkable proportion among others. In the surveyed one-word terms account for a large percentage which is usually nouns or verbs and Neologism. On average, the one-word terms and Neologisms investigated hold nearly 12% of the total word

1.2. One-word terms in the form of verb

The scientific terms such as: achieve, calculate, update, intergrate, generalize, analyse, become, etc.

A typical feature of these terms is that they are changeable; that is, they can appear either in the form of a verb or a noun at different positions in the same text or in the same sentence to avoid reiteration.

Most of these one-verb terms have their nouns to be used as alternatives, for example, transaction, sale, coverage, coverage, distribution, deposit, etc.

Another particular feature of these verb is that each verb usually goes with one or two certain nouns in their collocations, for example become the key to success, analyse the memory space etc.,

1.3. One-word terms in the form of nouns

Scientific terms appear in the form of a noun are various including nouns derived from verbs mentioned above and make up the proportion of about 25% of all terms investigated.

For example: improvement, demand, development, integration, requirement, etc., this group of terms are divided into two sub-groups as the followings:

Abstract:	Tóm tắt:
<p>The Next Generation Network (NGN)</p> <p>With the ability to integrate multiple services on the same shared infrastructure has been a new development trend of telecom sector in the world and Vietnam.</p> <p>When business environments are increasingly complex and competitive, the quality of services (QoS) has become the key to success,</p> <p>leading to the increasing demand to possess new high speed media services with lots of gadgets every time and everywhere.</p> <p>Since network speed depends on the processing of time packets in the routers,</p> <p>the processing of content packets at high speed has become very important in network security, network monitoring and load balancing.</p>	<p>Mạng Thế Hệ Mới (NGN – Next Generation Network)</p> <p>Với khả năng tích hợp nhiều dịch vụ trên cùng một cơ sở hạ tầng chung đang là một xu hướng phát triển mới của ngành viễn thông thế giới và Việt Nam.</p> <p>Khi môi trường kinh doanh đang ngày càng phức tạp và mang tính cạnh tranh cao thì chất lượng dịch vụ (QoS) trở thành chìa khóa cho sự thành công,</p> <p>điều đó cũng đồng nghĩa với nhu cầu sở hữu các dịch vụ truyền thông mới tốc độ cao với nhiều tiện ích ở mọi nơi.</p> <p>Bản chất tốc độ mạng phụ thuộc rất nhiều vào thời gian xử lý các gói tin trên các bộ định tuyến,</p> <p>vì thế việc xử lý nội dung gói tin với tốc độ cao đã trở nên rất quan trọng trong an ninh mạng, giám sát mạng và cân bằng tải.</p>

<p>In this paper, we will analyze the requirements of memory space and complexity of some packet contents pattern- matching using the automata model in the traditional network.</p> <p>From this we evaluate the improvements in the packet contents pattern-matching for the multi services environments of next-generation network.</p>	<p>Trong bài báo này, chúng tôi sẽ phân tích các yêu cầu về không gian bộ nhớ và độ phức tạp của một số kỹ thuật so khớp nội dung gói tin dùng mô hình ô tômat dựa trên các mẫu trong các mạng truyền thống.</p> <p>Từ đó đánh giá cải tiến trong mô hình so khớp nội dung gói tin cho môi trường đa dịch vụ của mạng thế hệ mới.</p>
--	---

1.3.1. Subtechnical terms

The subtechnical terms hold a notable percentage in a journal-article abstract. For examples: competition, application, investor, enterprise, etc.

Many of these terms are normal words which lose their “normal” meaning and acquire their special meanings in this subject. For instance, the normal meaning of the word “title” is “name of a book, work of art” (tiêu đề) meanwhile in the usage as an scientific term, its special meaning is “right to ownership of property with or without possession” (quyền sở hữu).

Followings are some more examples of subtechnical terms:

- Location: vị trí
- Algorithm: thuật toán
- Equation: phương trình
- Condition: điểm bất động
- Solution: nghiệm phương trình

Unless the users of subtechnical terms have made themselves acquainted with the general meaning of the words which popularly exist in General English it is possible that they may be confused in the usages of these words as they take on special meaning in a concrete scientific and technical field. These terms are only clear to them when they have a thorough understanding about that subject.

1.3.2. Scientific acronyms

Acronyms are an increasingly common feature of all non-literary texts and they are words formed from the initial letters of words that create a term or a proper name. Scientific acronyms investigated belong to the following type.

The type is acronyms for international signs such as “GA” (Genetic Algorithm) (Giải thuật di truyền); (Wireless Mesh Network) (Mạng lưới không dây); (Next Generation Network) (Mạng thế hệ mới).

Abstract:	Tóm tắt:
<p>This paper aims to study the challenging problem of optimizing gateway placement put in Wireless Mesh Networks (MWN) and propose a novel algorithm based on Genetic Algorithm (GA) for it.</p>	<p>Trong bài báo này, tôi tập trung nghiên cứu bài toán tối ưu vị trí đặt gateway đảm bảo thông lượng trong mạng lưới không dây (MWN) từ đó đề xuất thuật toán dựa trên giải thuật di truyền (GA) để giải quyết bài toán.</p>
<p>The Next Generation Network (NGN)</p> <p>With the ability to integrate multiple services on the same shared infrastructure has been a new development trend of telecom sector in</p>	<p>Mạng Thế Hệ Mới (NGN – Next Generation Network)</p> <p>Với khả năng tích hợp nhiều dịch vụ trên cùng một cơ sở hạ tầng chung đang là một xu hướng phát triển mới của ngành viễn thông thế giới và Việt</p>

the world and Vietnam.	Nam.
When business environments are increasingly complex and competitive, the quality of services (QoS) has become the key to success.	Khi môi trường kinh doanh đang ngày càng phức tạp và mang tính cạnh tranh cao thì chất lượng dịch vụ (QoS) trở thành chìa khóa cho sự thành công.

Unlike the first abstract, each acronym in the second abstract is accompanied by its full original expression, which, for the purpose of achieving terminology's nationalism, the second one did a better job. Although accurateness should be equal since these terms:

- Quality of Services - **QoS**
- Next Generation Network - **NGN**
- Genetic Algorithm – **GA**
- Wireless Mesh Networks have already achieved this quality along with their internationalism.

CHAPTER III: SOME STRATEGIES IN THE TRANSLATION OF THE SELECTED JOURNAL-ARTICLE ABSTRACTS

1. Loan translation

In loan translation procedure, the lexical components of the source term is translated, and then arranged in the target language in an order similar or nearly similar to that of the lexical components of the source term.

Example:

- analogue + signal

tương tự + tín hiệu = tín hiệu tương tự

- milk + tooth

sữa + răng = răng sữa

- musculus + sterno + cleido + mastoideus

cơ + ức + đòn + chũm = Cơ ức đòn chũm

Abstract	Tóm tắt
Use of Anoectochilus setaceus species have increased in the past few years due to the antidepressant and antiviral activities found in extracts of those plants. As a result of its potential as a pharmaceutical, a new system was developed for in vitro culture of this species. The goal of this investigation was to produce multiple shoot via in vitro techniques for Anoectochilus	Lan kim tuyến (Anoectochilus setaceus) là một loại thảo dược có giá trị kinh tế cao và khả năng chữa trị các bệnh ung thư, chống tăng huyết áp. Trong những năm qua ở Việt Nam, loài lan kim tuyến do bị thu hái với số lượng lớn để bán thuốc và xuất khẩu, nên chúng đang có nguy cơ đe dọa mạnh, rất có thể sẽ bị tuyệt chủng ngoài tự nhiên nếu không có biện pháp bảo tồn hữu

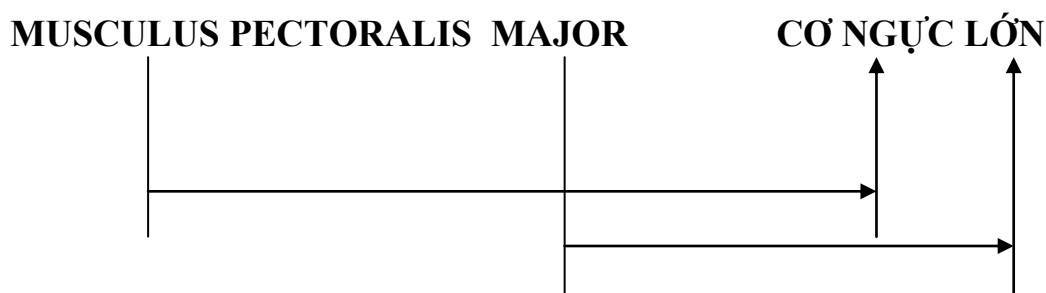
<p>setaceus. The basal MS and Knud medium were tested and shown to be equally suitable of them for shoot culture of <i>A. setaceus</i>. Other cultures were initiated from shoots inoculated onto MS medium supplemented individually with six different concentrations of 6-Benzylaminopurine (BAP) and Kinetin (Kn). The highest number of shoots was obtained on medium supplemented with 0.6 mg l-1 BAP (3.8 shoot/explant). Out of all the investigated concentrations of Kn, the best result was obtained on medium supplemented with 1.0 mg l-1 Kn (3.2 shoot/explant).</p> <p>Keywords: <i>Anoectochilus setaceus</i>, plant hormones, the multiple shoot induction.</p>	<p>hiệu. Để bảo tồn nguồn gen quý này, chúng tôi đã tiến hành phân lập và nuôi cấy. Hai môi trường MS và Knut đã được dùng để nhân nhanh chồi, kết quả sau 8 tuần nuôi cấy, số lượng chồi bất định hình thành và phát triển tốt trên cả hai loại môi trường. Hai loại cytokinin (BAP và Kin) đã được bổ sung vào môi trường rắn MS để nghiên cứu khả năng chồi và sự hình thành rễ bất định, kết quả thu được trên môi trường MS có bổ sung 0.6 Mg/1BAP là sự thích hợp cho sự hình thành chồi bất định với 3,8 chồi/mẫu cấy. Trong khi đó Kin thu được ở nồng độ cao hơn 1.0 mg/1 số lượng chồi thu được 3,2 chồi/mẫu cấy.</p> <p>Từ khóa: Hoa lan kim tuyến (<i>Anoectochilus setaceus</i>), kích thích tổ thực vật, cảm ứng nhiều chồi.</p>
--	--

A loan translation of a particular kind: a complete syntactic unit is borrowed, but its individual elements are translated literally. So, some words in the above abstract may be a loan of expression.

Example: ***Anoectochilus setaceus*: Lan kim tuyến**

2. Literal Translation

Literal translation tends to occur when the set of semantic components and the set of lexical components coincide, especially when the source term consists of Latin lexical components queuing in an order similar to that of the lexical components of the Vietnamese term:



The above instance illustrates the coincidence of loan translation and literal translation, however, literal translation tends to entail the semantic relationship among the components, more the syntax of the components.

For example:

Loan translation: data + structure

↓ ↓
dữ liệu cấu trúc = cấu trúc dữ liệu

Literal translation: loop + structure

↓ ↓
vòng cấu trúc = cấu trúc vòng lặp

Literal translation elucidates the semantic relationship between the two components “loop” and “structure”, so “loop structure” is translated as “cấu trúc vòng lặp” (instead of “cấu trúc vòng”) highlighting the iteration (which “lặp” means) of this structure.

Abstract:	Tóm tắt:
<p>The <i>Next Generation Network</i> (NGN) with the ability to integrate multiple services on the same shared</p>	<p><i>Mạng thế hệ mới</i> (NGN- Next Generation Network) với khả năng tích hợp nhiều dịch vụ trên cùng một cơ sở</p>

<p>infrastructure has been a new development trend of telecom sector in the world and Vietnam. When business environments are increasingly complex and competitive, the quality of services (QoS) has become the key to success, leading to the increasing demand to possess new high speed media services with lots of gadgets every time and everywhere. Since network speed depends on the processing of time packets in the routers, the processing of content packets at high speed has become very important in network security, network monitoring and load balancing. In this paper we generalize and apply techniques from pattern matching to develop high performance packet ring systems that can be used in a variety of applications such as intrusion detection systems and network monitors based on automata model. The algorithm aims to minimize the matching time and space requirements of the generated packet filtering system using pattern matching in NGN services.</p>	<p>hạ tầng chung đang là một xu hướng phát triển mới của ngành viễn thông thế giới và Việt Nam. Khi môi trường kinh doanh đang ngày càng phức tạp và mang tính cạnh tranh cao thì chất lượng dịch vụ (QoS) trở thành chìa khóa cho sự thành công. Điều đó cũng đồng nghĩa với nhu cầu sở hữu các dịch vụ truyền thông mới tốc độ cao với nhiều tiện ích ở mọi nơi. Bản chất tốc độ mạng phụ thuộc rất nhiều vào thời gian xử lý các gói tin trên các bộ định tuyến, vì thế việc xử lý nội dung gói tin với tốc độ cao đã trở nên rất quan trọng trong an ninh mạng, giám sát mạng và cân bằng tải. Trong bài báo này, chúng tôi sẽ phân tích các yêu cầu về không gian bộ nhớ và độ phức tạp của một số kỹ thuật so khớp nội dung gói tin dùng mô hình ô-tô-mat dựa trên các mẫu trong các mạng truyền thống. Thuật toán nhằm mục đích giảm thiểu các yêu cầu về thời gian và không gian phù hợp của hệ thống lọc gói được tạo bằng cách sử dụng khớp mẫu trong các dịch vụ. Từ đó đánh giá cải tiến trong mô hình so khớp nội dung gói tin trong môi trường đa dịch vụ của mạng thế hệ mới.</p>
--	--

3. Transposition

Transposition entails the grammatical changes but no semantic changes. The following examples denote the change in syntax from the source term to its translation.

Example: Ring main (ring: dependent: main: dominant) mạch vành chính (mạch vành (= ring): dominant: chính (= main): dependent.)

Abstract	Tóm tắt
<p>In this paper, I study the challenging problem of optimizing gateway placement for throughput in Wireless Mesh Networks (MWN) and propose a novel algorithm based on Genetic Algorithm (GA) for it. By generating the locations of gateway randomly and independently, I calculate the fitness value of each scheme, and update them step by step with the best method to quickly find the optimal scheme. Numerical results show that the proposed algorithm has achieved much better than previous studies.</p>	<p>Trong bài báo này, tôi tập trung nghiên cứu bài toán tối ưu vị trí đặt Gateway đảm bảo thông lượng trong mạng lưới không dây (MWN) từ đó đề xuất thuật toán dựa trên giải thuật di truyền (GA) để giải quyết bài toán. Bằng cách sinh ngẫu nhiên và độc lập các vị trí của Gateway, tôi sẽ tính toán giá trị hàm mục tiêu cho mỗi lược đồ và cập nhật chúng từng bước với phương pháp tốt nhất để tìm ra lược đồ tối ưu. Kết quả thí nghiệm cho thấy thuật toán được đề xuất cho kết quả tốt hơn các nghiên cứu trước đó.</p>

4. Modulation

Van Hoof (1989) also uses the term “modulation” as a type of transposition at the global level, applying to categories of thought, not grammatical categories.

In the information technology (IT) English, the adjective “online” composed of the preposition “on” and the noun “line” is defined as “connected to a computer or the Internet”. However, it is not translated as “nối mạng”, the equivalent of this definition, but translated as “trực tuyến” composed of the verb “trực” (i.e. move straight) and the noun “tuyến” (i.e. line). “Trực tuyến”, which implies “move straight through the line to” and so, implies “connected”, is a transposition of thought or modulation.

Likewise, the adjective “offline” composed of the preposition “off” and the noun “line” is defined as “disconnected from a computer system or the Internet”. It, nonetheless, is not translated as “ngắt mạng”, the equivalent of the aforementioned definition, but translated as “ngoại tuyến” composed of the preposition “ngoại” (i.e. outside) and the noun “(i.e. line). “Ngoại tuyến”, which implies “outside the line” and so, implies “not connected”, is another transposition of thought or modulation.

In the below abstract, the word “organic waste” is translated “rác thải hữu cơ”. It is the translation procedure: abstract for concrete.

Abstract:	Tóm tắt:
The aims of this research focus on accumulation and transportation of selected heavy metals in thermophilic anaerobic co-digestion municipal sewage sludge and organic waste on the laboratory scale. Organic waste was	Trong nghiên cứu này, tập trung nghiên cứu sự tích tụ và vận chuyển của một số kim loại nặng trong quá trình ổn định bùn thải kết hợp với rác hữu cơ bằng phương pháp lên men nóng trên quy mô phòng thí nghiệm. Rác thải

<p>collected from market and sewage sludge was collected from Kim Nguu River in Hanoi city. Organic waste and sewage sludge were mixed on optimal anaerobic digestion ratio. The influent substrate was put into experimental equipment. During experiment, some parameters such as pH, EC were measured daily, others parameters such as COD, heavy metals concentration were measured after 3 to 5 days. The heavy metals content in influent substrates and effluent substrates were paid more attention in this research.</p>	<p>hữu cơ được lựa chọn và bùn thải được lấy từ hệ thống song thoát nước thành phố trên địa bàn thành phố Hà Nội. Rác hữu cơ và bùn thải được phối trộn với tỉ lệ thích hợp theo hướng tối ưu hóa quá trình phân hủy yếm khí. Hỗn hợp bùn thải và rác hữu cơ được đưa vào mô hình thí nghiệm hoạt động theo kiểu mẻ. Trong quá trình tiến hành thí nghiệm các chỉ tiêu như PH, độ dẫn điện (EC), được đo hàng ngày, các chỉ số khác như COD tổng, kim loại nặng được đo định kỳ theo kế hoạch thực nghiệm. Hàm lượng kim loại trong đầu vào và sản phẩm đầu ra của quy trình xử lý được đặc biệt quan tâm trong nghiên cứu.</p>
--	---

PART C - CONCLUSION

1. Recapitulation

This study on the English - Vietnamese translation of journal-article abstracts ends by a brief summary of the steps taken through strategies and procedures used to in the translation. Suggestions for further research should also be available here.

The study started with an overview of the strategies and procedures to deal with non-equivalence at word level. Then it aimed to analyse the translation of journal-article abstracts with regard to the strategies and procedures. To achieve the purpose of the study, some journal-article abstracts were selected.

It can be seen in the study that the translators have used a lot of strategies and procedures in translating journal-article abstracts from English into Vietnamese to achieve the equivalence at word level.

The study has also showed that though there are a lot of potential problems facing the translators such as non-equivalence, terminology, limited knowledge of science, differences between the two languages. Nevertheless, they have come over those problems by using various strategies and scientific translation, among which the most popular are loan and shift/transposition.

Further study on this topic is needed to shed light on many issues which remain unsearched in this thesis. Further study should focus on the structural patterns of journal-article abstracts, different types of journal-article abstracts so as to make the study more thorough.

2. Implications of the study

The findings of the present study have pedagogical implications for the students or teachers of Universities with passion in scientific research. The move structure and some linguistic features of research article abstracts should be incorporated into academic writing courses for graduate and postgraduate students to prepare them to participate in the research world. In such courses students need

to be aware of move structure and some linguistic features of the research article abstracts in economic discipline. Such knowledge is essential for them in the course of their study and their academic career. There is an apparent mismatch between recommendations in the technical writing literature and actual practice. Many handbooks on research paper writing only give a very general description of a journal-article abstract and provide a sample journal-article abstract. In order to provide useful instruction on abstract writing to novice writers, they need to show readers how to translate a journal-article abstract and how to realize the terms in journal-article abstracts. It is very important that the novice writers need to know not only how to understand a journal-article abstract in any journal of sciences. To reach the goal, such information needs to come from corpus-based research findings. Therefore, the analysis has been conducted to analyze procedures and rules that are used to translate a journal-article abstracts from English into Vietnamese.

3. Conducting remarks

The thesis focusses on the procedure and equivalence of terminology translation of journal-article abstracts. It also clarifies how the term is translated on word level only.

The loan and shift translation is applied on translation of journal - article abstracts from English into Vietnamese.

It is hoped that the thesis will be of some use to the translators who are dealing with English - Vietnamese translation of journal-article abstracts.

4. Limitations of the study

Within the framework of a thesis, this thesis only pays attention on some journal - article abstracts in Journal of Science of Hai Phong and international journal of science. And most of them journal-article abstracts are about biology, medicine, journal-article abstracts of mathematics and information technology. And they are written by Vietnamese and they are not famous translators. In addition, the thesis has just applied translation methods as well as procedures of

Peter New mark, Vinay and Dabelnet and based on some characters of journal-article abstracts. So, the scope of the thesis is still limited.

5. Suggestions for further study

Since journal-article abstracts are one of the fundamental fields in science, there will be many interesting things to research. Besides research of journal-article abstracts, there are other sections of a journal-article abstracts such as “introduction”, “discussion section” or “method section”, etc. So, in the further study, it is possible to expand the scope of the study. In addition, we can apply translation methods or procedures of other section in the study to find out a lot of scientific texts which are written by famous translators in different fields.

REFERENCES

English

1. Baker, M.(1994): *In Other Words*, a Course Book on Translation. Routledge.
2. Baker, M.(1998): *Routledge Encyclopedia of Translation Studies*. Routledge.
3. Catford, J. (1967): *A Linguistic Theory of Translation*. Oxford: OUP
4. Cleveland, D. (1983): *Introduction to Indexing and Abstracting*, Libraries Unlimited Inc.
5. Johnson, F. (1995): *Automatic abstracting research*, Library review
6. Graetz, N. (1985): *Teaching EFL students to extract structural information from abstracts*. In Ullrich J. M
7. Hatim, B; Mason. (1990): *Discourse and The Translator*. London / New York: Longman.
8. Herverly, S; Higgins, I. (1992): *Thinking Translation, A Course Book on Translation*.
9. Nida, E. A. (1975): *Language structure and Translation*. Essays by Eugene.
10. New Mark, P. (1988): *Approach to Translation*. Oxford Pengamon.
11. New Mark, P. (1988): *A Text Book of Translation*. Prentice Hall International.
12. Swales. (1990), *Genre Analysis: English in academic and research settings*, Cambridge University.
13. Vinay, J; Darbelnet, J. (1995): *Comparative Stylistics of French and English: a Methodology for Translation*.

Vietnamese

1. Đỗ Hữu Châu. (1998): *Cơ sở ngữ nghĩa học từ vựng*. NXB Giao Duc
2. Nhung Lê Đắc. (2012): *New genetic Algorithm applied to optimize gateway placement in Wireless Mesh Network*. Hai Phong Journal of Sciences.
3. Nhung Lê Đắc. (2012): *Fast pattern-matching techniques for packet filterin*. Hai Phong journal of Sciences.
4. Cao Vũ Hưng, Bùi Duy Cam, Trịnh Lê Hùng, Bạch Quang Dũng. (2013): *Accumulation and transportation of selected heavy metals in thermophilic*

anaerobic co-digestion of municipal sewage sludge and organic waste. VNU journal of Natural Sciences and Technology.

5. Nguyễn Trung Thành. (2012): *The role of different medium and plant hormones on multiple shoots of Jewel orchids (Anoectochilus setaceus)*, VNU Journal of Science, Natural Sciences and Technology.

APPENDIX I

The role of different medium and plant hormones on multiple shoots of Jewel orchids (Anoectochilus setaceus)

Nguyen Trung Thanh, Pham Luong Hang, Nguyen Van Ket, Truong Thi Lan Anh, Phung Van Phe, Nguyen Thi Hong Gam, Phi Thi Cam Mien. VNU Journal of Science, Natural Sciences and Technology 28

Abstract:

Use of *Anoectochilus setaceus* species have increased in the past few years due to the antidepressant and antiviral activities found in extracts of those plants. As a result of its potential as a pharmaceutical, a new system was developed for in vitro culture of this species. The goal of this investigation was to produce multiple shoot via in vitro techniques for *Anoectochilus setaceus*. The basal MS and Knud medium were tested and shown to be equally suitable of them for shoot culture of *A. setaceus*. Other cultures were initiated from shoots inoculated onto MS medium supplemented individually with six different concentrations of 6-Benzylaminopurine (BAP) and Kinetin (Kn). The highest number of shoots was obtained on medium supplemented with 0.6 mg l⁻¹ BAP (3.8 shoot/explant). Out of all the investigated concentrations of Kn, the best result was obtained on medium supplemented with 1.0 mg l⁻¹ Kn (3.2 shoot/explant).

Keywords: Jewel orchids (*Anoectochilus setaceus*), plant hormones, the multiple shoot induction.

Tóm tắt:

Lan kim tuyến (*Anoectochilus setaceus*) là một loại thảo dược có giá trị kinh tế cao và khả năng chữa trị các bệnh ung thư, chống tăng huyết áp. Trong những năm qua ở Việt Nam, loài lan kim tuyến do bị thu hái với số lượng lớn để bán thuốc và xuất khẩu, nên chúng đang có nguy cơ đe dọa mạnh, rất có thể sẽ bị tuyệt chủng ngoài tự nhiên nếu không có biện pháp bảo tồn hữu hiệu. Để bảo tồn nguồn gen quý này, chúng tôi đã tiến hành phân lập và nuôi cấy. Hai môi trường MS và Knut đã được dùng để nhân nhanh chồi, kết quả sau 8 tuần nuôi cấy, số lượng chồi

bất định hình thành và phát triển tốt trên cả hai loại môi trường. Hai loại cytokinin (BAP và Kin) đã được bổ sung vào môi trường rắn MS để nghiên cứu khả năng chồi và sự hình thành rễ bất định, kết quả thu được trên môi trường MS có bổ sung 0.6 Mg/ 1BAP là sự thích hợp cho sự hình thành chồi bất định với 3,8 chồi/ mẫu cấy. Trong khi đó Kin thu được ở nồng độ cao hơn 1.0 mg/l số lượng chồi thu được 3,2 chồi/mẫu cấy. Thể chồi mập, xanh, xuất hiện một số lông tơ từ gốc thể chồi.

Từ khóa: Hoa lan kim tuyến (*Anoectochilus setaceus*), kích thích tố thực vật, cảm ứng nhiều chồi.

Fast pattern-matching techniques for packet filtering

Nhường Lê Đắc. (2012). Hai Phong Journal of Sciences, Vol.8, No.3.

Abstract:

The Next Generation Network (NGN) with the ability to integrate multiple services on the same shared infrastructure has been a new development trend of telecom sector in the world and Vietnam. When business environments are increasingly complex and competitive, the quality of services (QoS) has become the key to success, leading to the increasing demand to possess new high speed media services with lots of gadgets every time and everywhere. Since network speed depends on the processing of time packets in the routers, the processing of content packets at high speed has become very important in network security, network monitoring and load balancing. In this paper we generalize and apply techniques from pattern matching to develop high performance packet ring systems that can be used in a variety of applications such as intrusion detection systems and network monitors based on automata model. From this we evaluate the improvements in the packet contents pattern-matching for the multi services environments of next-generation network. The algorithm aims to minimize the matching time and space requirements of the generated packet filtering system using pattern matching in NGN services.

Tóm tắt:

Mạng thế hệ mới (NGN- Next Generation Network) với khả năng tích hợp nhiều dịch vụ trên cùng một cơ sở hạ tầng chung đang là một xu hướng phát triển đang là một xu hướng phát triển mới của ngành viễn thông thế giới và Việt Nam. Khi môi trường kinh doanh đang ngày càng phức tạp và mang tính cạnh tranh cao thì chất lượng dịch vụ (QoS) trở thành chìa khóa cho sự thành công. Điều đó cũng đồng nghĩa với nhu cầu sở hữu các dịch vụ truyền thông mới tốc độ cao với nhiều tiện ích ở mọi nơi. Bản chất tốc độ mạng phụ thuộc rất nhiều vào thời gian xử lý các gói tin trên các bộ định tuyến, vì thế việc xử lý nội dung gói tin với tốc độ cao đã trở nên rất quan trọng trong an ninh mạng, giám sát mạng và cân bằng tải. Trong bài báo này, chúng tôi sẽ phân tích các yêu cầu về không gian bộ nhớ và độ phức tạp của một số kỹ thuật so khớp nội dung gói tin dùng mô hình ô-tô-mat

dựa trên các mẫu trong các mạng truyền thống. Từ đó đánh giá cải tiến trong mô hình so khớp nội dung gói tin trong môi trường đa dịch vụ của mạng thế hệ mới.

*New genetic Algorithm applied to optimize gateway placement in
WirelessMesh Network,*

Nhường Lê Đắc.(2012) Hai Phong Journal of Sciences ,Vol.4, No.2

Abstract:

In this paper, I study the challenging problem of optimizing gateway placement for throughput in Wireless Mesh Networks (MWN) and propose a novel algorithm based on Genetic Algorithm (GA) for it. By generating the locations of gateway randomly and independently, I calculate the fitness value of each scheme, and update them step by step with the best method to quickly find the optimal scheme. Numerical results show that the proposed algorithm has achieved much better than previous studies.

Tóm tắt:

Trong bài báo này, tôi tập trung nghiên cứu bài toán tối ưu vị trí đặt gateway đảm bảo thông lượng trong mạng lưới không dây (MWN) từ đó đề xuất thuật toán dựa trên giải thuật di truyền (GA) để giải quyết bài toán. Bằng cách sinh ngẫu nhiên và độc lập các vị trí của gateway, tôi sẽ tính toán giá trị hàm mục tiêu cho mỗi lược đồ và cập nhật chúng từng bước với phương pháp tốt nhất để tìm ra lược đồ tối ưu. Kết quả thí nghiệm cho thấy thuật toán được đề xuất cho kết quả tốt hơn các nghiên cứu trước đó.

Accumulation and transportation of selected heavy metals in thermophilic anaerobic co-digestion of municipal sewage sludge and organic waste

Cao Vũ Hưng, Bùi Duy Cam, Trịnh Lê Hùng, Bạch Quang Dũng. (2013).

VNU Journal of Natural Sciences and Technology, Vol. 29, No. 1.

Abstract:

The aims of this research focus on accumulation and transportation of selected heavy metals in thermophilic anaerobic co-digestion municipal sewage sludge and organic waste on the laboratory scale. Organic waste was collected from market and sewage sludge was collected from Kim Nguu River in Hanoi city. Organic waste and sewage sludge were mixed on optimal anaerobic digestion ratio. The influent substrate was put into experimental equipment. During experiment, some parameters such as pH, EC were measured daily, others parameters such as COD, heavy metals concentration were measured after 3 to 5 days. The heavy metals content in influent substrates and effluent substrates were paid more attention in this research.

Tóm tắt:

Trong nghiên cứu này, tập trung nghiên cứu sự tích tụ và vận chuyển của một số kim loại nặng trong quá trình ổn định bùn thải kết hợp với rác hữu cơ bằng phương pháp lên men nóng trên quy mô phòng thí nghiệm. Rác thải hữu cơ được lựa chọn và bùn thải được lấy từ hệ thống song thoát nước thành phố trên địa bàn thành phố Hà Nội. Rác hữu cơ và bùn thải được phối trộn với tỉ lệ thích hợp theo hướng tối ưu hóa quá trình phân hủy yếm khí. Hỗn hợp bùn thải và rác hữu cơ được đưa vào mô hình thí nghiệm hoạt động theo kiểu mẻ. Trong quá trình tiến hành thí nghiệm các chỉ tiêu như PH, độ dẫn điện (EC), thể tích khí được đo hàng ngày, các chỉ số khác như COD tổng, kim loại nặng được đo định kỳ theo kế hoạch thực nghiệm. Hàm lượng kim loại trong đầu vào và sản phẩm đầu ra của quy trình xử lý được đặc biệt quan tâm trong nghiên cứu.