

fective and easy. These include back translation, consultation with other people and interviews or questionnaires or any kind of test that will eventually help to solve translation problems.

When it comes to translation it has always been sound advice that the translation product should be accurate, which includes the adequacy and equivalence of the translation. In addition, most linguists believe that there are two types of equivalence: formal and dynamic. Formal equivalence focuses on the form as well as the content of the message, whereas dynamic equivalence focuses on producing an equivalent effect on the target language. The concept of the translation equivalent effect may however be rather vague.

Many translators perform translation using different techniques which they would think will suit to the translation type and the complexity of the area. However, the main point here is that the translation process has to find the effective ways in order to obtain the most accurate translation possible for clients. Expertise in the specialised field and linguistic proficiency are the most essential factors needed in order to produce a high-quality translation product. Without it, translation Free Reprint Articles, including communication and understanding would be vague.

We come to the conclusion, saying that the problem described in this article is very important. A text written or translated by a person with technical background should be edited by a person with good writing skills, who takes responsibility not only for the facts but also for the language. Good technical translations can seldom be achieved by only one person.

#### References:

1. Sue Ellen Wright, Leland D. Wright Scientific and Technical Translation. John Benjamins Publishing, 1993.
2. Standardizing Terminology for Better Communication: Practice, Applied Theory, and Results. – Richard Alan Strehlow, Sue Ellen Wright, ASTM International, 1993

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#### **Formation and Translation of Power Engineering Terms**

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In the sphere of science and technology, particularly in electric and power engineering fields, multi-partite terms form more than 80% of the whole word stock. This reflects in occurrence of a numerous multi-partite terminological combinations, such as power-flow-type relay, capacitor-compensated transmission line, secondary grid-type distribution system etc.

Word borrowings from other languages are negligible in this point of consideration, these lexical units average out at no more than 3-4%. Suffixation is the most common type of morphological word formation; 5-18% of terms are formed this way.

Current scientific and technical literature in English is characterized by a growth trend of various contractions (abbreviations) among all morphological word classes and combinations as well as by formation of new words via contraction of the existing ones (today there more than 250 000 abbreviations registered in Romanized counties) [1] This is a result of message informational optimization and a tendency of communication to minimize complicated signs, e.g.;

- VAR- Volt-Ampere-reactive
- RMS – root-mean-square;

- EMF – electro-motive force;
- STATCOM – Static Synchronous Compensator;
- SVC – Static VAR compensator;
- TCR – Thyristor Controlled Reactor;
- TSR – Thyristor Switched Reactor;
- MSC – Mechanically Switched Capacitor.

Multi-partite terms present the major problem of understanding and usage of them in speech, these are word combinations formed according to a certain pattern.

Chain-building as a way of terms formation is becoming more and more widespread in practice. Attributive clusters as a main method of terms formation become more and more widespread in practice. This is reasoned by external factors. First of all, any language has a limited amount of lexical units. Secondly, the results of scientific and technical revolution have led to new discoveries and phenomena which require specific definitions and nominations.

At this juncture the update of language lexicon is mainly realized through the specific terminology which is the most flexible part of lexical-semantic system. Such an increase amounts more 1000 of new terms annually.

Lexical-semantic way of terms formation creates a serious competition to such traditional methods as semantic and morphological; these combinations are the most used nowadays. Terminological phrases are semantically cohesive combinations of two and/or more words linked with a preposition (e.g. battery-to-high-voltage DC power supply – a storage device for a direct-current power supply of high voltage) or without it (e.g. air-gap-wound generator – a generator with windings in the air gap). Such combinations can be either a set expression or a free phrase. When using a certain terminological phrase it is necessary to understand the order of its translation [2] Terminological phrases are built of nouns usually in the singular (phrase kernel with other parts of speech which stand usually before it).

The main word in the non-prepositional terminological phrase is the last one, and all the words to the left of it play a secondary role – attributive, e.g.:

- step-down transformer – понижающий трансформатор,
- free-running generator – автономный генератор,
- gear motor – редукторный двигатель,
- wattage transformer – миниатюрный трансформатор.

Non-prepositional phrases can contain a large amount of information, e.g.:

- dry-type self-cooled transformer – сухой трансформатор с воздушным охлаждением,
- alternating-continuous current commutating machine – электромашинный преобразователь переменного тока в постоянный.

Terminological phrase are usually classified according to their lexical composition. There are terminological phrases consist

- only of nouns;
- of adjectives and nouns;
- of participles and nouns;
- of adverbs, participles and nouns etc [3].

Let's consider the basic ways of their formation.

1. Terminological phrases consist of nouns, e.g.:

- current rise – фронт кривой тока,
- current transformer phase angle – угловой сдвиг в трансформаторе тока,

- reference winding – обмотка, питаемая опорным сигналом,
  - stator end winding – лобовые части обмотки статора.
2. Terminological phrases consist of adjectives and nouns, e.g.:
    - high negative interference – высокая отрицательная интерференция;
    - short-circuit – короткое замыкание.
  3. Terminological phrases consist of participles and nouns, e.g.:
    - padding capacitor – сопрягающий конденсатор;
    - distributed amplifier – усилитель с распределённым усилением.
  4. Terminological phrases consist of three components (adverb + participle (adjective) + noun), e.g.:
    - separately-mounted circulating circuit component – отдельно монтируемый элемент циркуляционной систем;
    - continuously-adjustable capacitor – конденсатор переменной емкости.
  5. Terminological phrases consist of three components (noun + adjective + noun), e.g.:
    - voltage-sensitive device – прибор, чувствительный на напряжение;
    - net-dependable capability – плановая располагаемая генерирующая мощность.
  6. Terminological phrases consist of three components (noun + participle + noun), e.g.:
    - voltage-controlled capacitance – ёмкость, управляемая напряжением;
    - gas-filled rectifier – ионный вентиль.
  7. Terminological phrases consist of word groups where gerund is the main one, e.g.:
    - full loading – полная загрузка;
    - brush sparking – искрение щеток.
  8. Terminological phrases with infinitive, e.g.:
    - value to maintain relay closed – параметр удержания реле;
    - time to stable closed condition – время устойчивого замыкания контактов.

In terminological phrases consist of a long word-chain there can exist separate units linked to each other with a hyphen, e.g.:

- six-phase double-wye power rectifier circuit – силовой выпрямитель по схеме двойной звезды с междуфазным трансформатором,
- series-tuned circuit – последовательный резонансный контур;
- double-acting diesel engine – дизель двойного действия.

Terminological phrases are characterized by a main word standing before a preposition, and the words after it play an attributive role, e.g.:

- path of a winding – ветвь обмотки;
- coat of varnish – лаковое покрытие.

Terminological phrases can also have prepositional phrases as a part of them, which are the definition to the main word [4], e.g.:

- step-by-step regulator – ступенчатый регулятор;
- front-of-panel mounting – передний монтаж на панели.

Provided analysis of terminological phrases draws us to a conclusion that their type is defined by the number of components, and this in turn has a bearing upon the motivation of terminological phrase. Terminological phrase allows to feed concisely with information and to form inter-phrase connection between sentences and paragraphs in scientific and technical texts [5].

Formation analysis of English scientific and technical terms in the field of electrical and power engineering leads to the conclusion that the main ways of their formation is syntactic, semantic and morphological, they can also built through the borrowings from

other languages and special-field terminology. Most of the nowadays English terms have syntactical origin [6].

Литература:

1. Tarasova, E.S., 2010. Technical documentation teaching to non-linguistic students (on the example of patents and manuals) // Tomsk State Pedagogical University Bulletin 10: 71-75.
2. Hyde Parker, R., 2009. Professionalizing Literary Translation Education // Translation Journal. Univ. of East Anglia, UK. Volume 13, No. 2.
3. Klimzo, B.N., 2006. The work of a technical translator. M.: Valent, pp: 508.
4. Kvo, Ch.K., 2008. Translation Technologies. M.: Akademia, pp: 256.
5. Alekseeva, I.S. 2004. Professional translator training. M.: Soyuz, pp.: 288.
6. Hann, M. 1992. The Key to Technical Translation. Volume 1: Concept specification. John Benjamins Publishing Company, pp. 248 p.

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**Scientific and technical discourse: linguistic and technical synergy**

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Since the end of the twentieth century, the time when technology started to develop extremely rapidly, there have been debates among people worldwide as to whether this technology has changed our life for the better or for the worse. There is no point all people hold the same opinion on, but I believe some treat new inventions unfairly when they say that they are a curse rather than a boon and make human life complex and stressful. Computers are certain to have made the world a better place to live in and no one can deny its getting an integral part of our everyday life. Technology has contributed to opening up many new avenues that were inaccessible before, especially in the system of education. Speaking of the pros and cons of the Internet as a source of knowledge, people of all walks of life see eye to eye about it as extremely helpful and convenient. With the help of technology, and the Internet in particular, students nowadays can learn more information and learn it much faster; while for teachers it is another source of data which enables them to provide a well-rounded education. Being a student myself and doing my major in foreign languages, I can assure everybody who takes a dim view of the Internet that it is a really great help in studies. Do not wonder why it takes you so long to get a good grasp of other languages if you object to using the Internet. The answer would be simple: it is just high time you started using it.

First of all, the Internet is a high-speed source of information. No matter what field one specializes in, whether it is foreign languages or not, people of today are supposed to be well up in the latest news and changes in politics, culture, novelties in cinematograph, different competitions and exhibitions taking place not only in the native country but also in others, news in fashion industry and so on, which gives them certain knowledge and, in turn, makes them educated and turns them into a good company. Nothing can be more helpful in your succeeding in it than the Internet is at the moment, since no sooner have we fed the necessary word or sentence into the search system than the Internet gives us a lot of information about it. As it does not drag on for long hours, the search does not eat up our time, which is really precious. Now let us step back a few years from now. Books,