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## **TRANSLATION OF STRATEGIC ELECTRONICS TECHNOLOGY: DYNAMIC CHALLENGES**

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**Abstract:** Translation is an important branch of 'Applied Linguistics'. In our Indian education system applicability of knowledge with relation to knowledge have very important and vital role. Our new 'National Education Policy Draft' has given significant focus to 'Technical Translation'. National Education Policy Draft- 2019 has clearly emphasized regarding 'High quality Translation' vide 'Point No. P 4.8.4' i.e. "In Indian Institute of Translation and Interpretation (IITI) will be established as a constituent unit of existing National level Institution or University, in collaboration with states, to carry out high quality translations of materials of importance between foreign languages and Indian Languages. The IITI will be equipped with state-of -the art equipment to enable it to use latest processes and adopt modern approaches to translation of materials into different languages. In particular through IITI, all NCERT developed text books and nationally recommended teaching-learning materials (with collaboration from SCERTs) will be made available in all major Indian Languages".

So, in order to equip with technical domains 'Translation Studies' subject have a very big challenges and opportunities ahead. Now a days, translation is becoming one of the most dynamic and challenging discipline day by day. The invention of internet, together with the latest technological developments in communication and digital materials has entirely changed the traditional method of translation. Daily new concepts are emerging in the electronics institutions. Annual Report translation of any strategic sector institutes or public sector, as well as private sector needs an extra ordinary exposure. It requires and also expects the basic knowledge of technical domains, technical projects, statutory terminology of the accounts and audits and also overview of the respective corporation.

**Keywords:** Nuclear, Aerospace, Defence, Security, IT and Telecommunication, Notes, Semantic, Equivalence, e-Governance, Borrowing, Descriptive equivalent and Couplets.

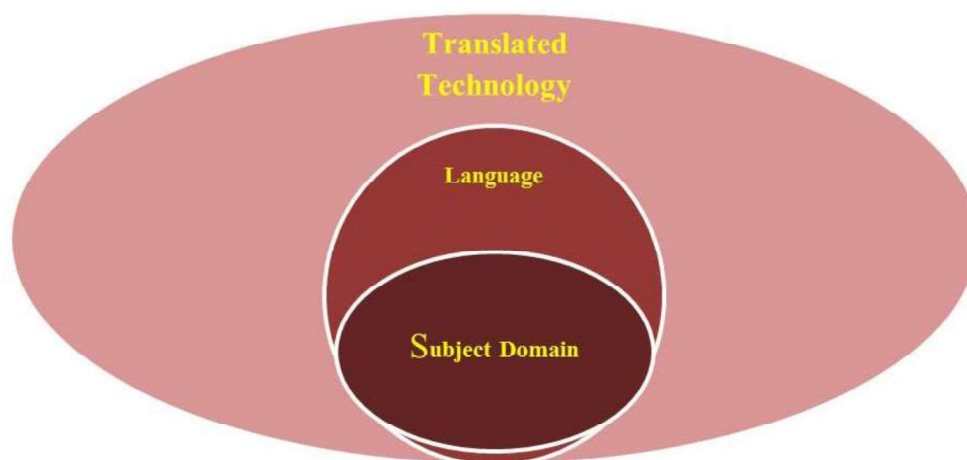
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**Introduction:** When translator is having knowledge about corporation's products, projects and overview and other important concepts, he/ she can start the translation work. He/ She should always remember two basic goals and objectives of translation, "Adequacy" & "Fluency", both in theory and application. These are the main criteria that translator should always remember. Focusing exclusively on the translation of technical, engineering and scientific documents especially strategic electronics in the field of Nuclear, Defence, Aerospace, Security, IT and Telecommunication and e-Governance, where precision, accuracy and consistency are paramount importance and notoriously these are challenging to achieve. How to achieve this, is the 'Acid Test' for any translator.

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Our linguistics theories never imagined the ever numeric figures will be more communicative than words. In fact, for numeric terms, there is no translation. We have to use, as it is. For example 26/11 (terrorist attack in Mumbai) and 9/11 (terrorist attack in USA) have no translation. In Indian context 26/11 is 26th November but the 9/11 has been expressed in American form. In the Indian context, generally it will be thought that 9/11 is 9<sup>th</sup> November but actually, it is 9<sup>th</sup> September.

At the outset, translator must know the use of concept in the appropriate place and time. In the same way, another example is also very important. As famous scientist Albert Einstein was born on the pie day of 1879. Now, to translate this, translator has to know the meaning of mathematical term pie. Generally, most of the translator will assume that he was born on 22-07-1879, as the value of pie is 22/7, But, the real translator should think beyond that, as pie is having another value 3.14 also. In the American system, this 3.14 will be written as 14.3. So, Albert Einstein was born on 14-03-1879. In scientific organisations various documentaries of world class scientists are being lettered. In this case, translator should be very alert and cautious.



This type of translation should be managed by translators with background in science and technology. In this context the whole responsibility lies not only with the translator but the reader should also understand the various complications of translation. When translator starts 'Annual Report' or 'Technical Report' translation, he/ she comes across various areas of translation, hence it requires knowledge of following topics:-

**Knowledge of Technical Subjects:** Though the translation is exercise between two languages, but one cannot overlook the technical aspects of translation. One field of vocabulary cannot be applied into other field of vocabulary. While translating, writer of this paper has experienced the word 'Outstanding' has got extreme positive meaning in scientific organisations. 'Outstanding Scientist' is a well dignified designation, but in Accounts department, 'Outstanding' means 'due'. It is in negative sense. So, when translating, the translator must understand that particular word belongs to which domain.

**Knowledge of Technical Projects:** Translation of technical projects is also helpful in translation. Some of the words are not having equivalent in other language. So these words can be transliterated.

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**Overview of the Corporation:** Translation is not just transfer from one language to other. The translation should reflect the 'Vision' and 'Mission' of Corporation.

**Knowledge of Accounts and Audits Including Balance Sheet:** While translating balance sheet, one must be thorough and careful. Even a single mis-adjustment can lead a mistake in tallying up the balance sheet. For this, translator can take the help of accounts experts.

**Terminology of Statutory Audit:** In Statutory audit, particularly in 'Draft Paras' utmost care should be taken. Only the legal terminology words should be used.

**Knowledge about Applicability of Various Products:** Products translation is somewhat difficult. Because the translator should know the operation activity of products - even a single mistake can hamper the reputation of Corporation's product in the market. Hence, the translation must submitted for getting duly vetting and approval to particular product expert.

Many researches, scholars, linguists and scientific translators have come across challenges with respect to the flow and adequacy of translation. In this context renowned physicist and scientific translator Martin Greenlinger made an appeal and alert to readers while translating original book *"Physics for everyone: Book-1 physical bodies"* from Russian to English that while reading the translation reader should stop for a while to understand and then they should give pause for thought. He has used very perfect and appropriate adjective for readers i.e. *"A careful reader"*. In his words *"A careful reader, I realize, we feel the difference. But I have tried to preserve the presentation principles that thou that I followed. These are the deductive principles rather than the Historical. We also felt that it will be well to use the language of everyday life and inject some humour at the same time we did not over simplify. If the reader wants to fully understand the subject, he must be prepared to read some places many times and pause for thought"*.

In Public Sector Undertakings (PSUs) procedural and operational translation, mostly scientific terminology is used. In most of the PSUs, same types of products and projects are executed. But some of the PSUs, different types of production activities are undertaken. Electronics Corporation of India Limited, a Govt. of India Enterprise under the Department of Atomic Energy is doing 'Research & Development' work and various projects under following verticals:

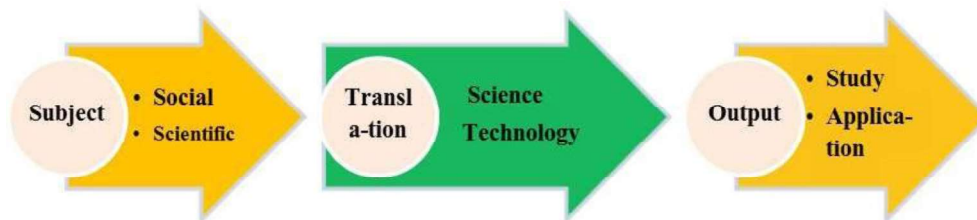
- Nuclear Sector
- Aerospace Sector
- Defence Sector
- Security Sector
- IT and Telecommunication Sector
- e-Governance Sector

For translating "Annual Report" as well as "Technical Brochures" of Public Sector Undertakings (PSUs), which are having their domains in various verticals, translator should be well acquainted with technical aspects of Annual Report. Knowledge of lingual and theoretical aspects of Annual Report will be an added valued advantage.

The translation of any 'Annual Report' is a time bound project. Therefore, 'Time Management' is another most important factor in translation. Many input giving sections are being involved in Annual Report compilation. This should not be dealt as a normal routine translation work, but it should be taken as 'Domain Specific Translation Project'. In most of the University's

translation studies courses 'Time Management in translation process' has not been covered. To meet the 'dead line' translator should manage himself/ herself. In all the aspects he/ she should use many translation practices. He/ She should follow the critical approaches of translation techniques.

Before using above practices of translation, every chapter of translation should be analyzed with respect to subject, reference and its application. For this, translator should apply following Methods, Techniques and Procedures:



### (1) Methods

1. Word for Word Translation
2. Literal Translation
3. Faithful Translation
4. Semantic Translation
5. Free Translation
6. Idiomatic Translation
7. Communicative Translation

**1. Word for Word Translation:** This is often demonstrated as interlinear translation, with the Target Language (TL) immediately below the Source Language (SL) Words. The SL words order is preserved and the words translated singly by their most common meanings, out of context. Cultural words are translated literally. The main use of word-for-word translation is either to understand the mechanics of the source language or to construe a difficult text as a pre-translation process.

**2. Literal Translation:** The Source Language (SL) grammatical constructions are converted to their nearest Target Language (TL) equivalents but the lexical words are again translated singly, out of context. As a pre-translation process, this indicates the problem to be solved.

**3. Faithful Translation:** A faithful translation attempts to reproduce the precise contextual meaning of the original within the constraints of the Target Language (TL) grammatical structures. It transfers cultural words and preserves the degree of grammatical and lexical 'abnormality' (deviation from SL norms) in the translation. It attempts to be completely faithful to the intention and the text realization of Source Language (SL) writer.

**4. Semantic Translation:** Semantic translation differs from the 'faithful translation' only in as far as it must take more account of the authentic value (that is, the beautiful and natural sound) of the Source Language (SL) text, compromising on 'meaning' where appropriate, so that no assonance, word play or repetition jars in the finished version. Further, it may translate less important cultural words by cultural natural third or functional terms but not by cultural equivalents and it may make other small concession to the readership. The distinction

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between 'faithful' and 'semantic' translation is that the first is un-compromising and dogmatic, while the second is more flexible, admits the creative empathy with the original.

**5. Free Translation:** Free translation reproduces the matter without manner, or the content without the form of the original. usually it is a paraphrase much longer than the original, a so called inter-lingual translation; often prolix and pretentious, and not translation at all.

**6. Idiomatic Translation:** Idiomatic translation reproduces the message of the original but tends to distort nuances of meaning by preferring colloquialism translation; often prolix and pretentious, and not translation at all.

**7. Communicative Translation:** Communicative translation attempts to render the exact contextual meaning of the original in such a way that both content and language are readability acceptable and comprehensible to the readership. Translation is a very complex subject. Here three things are most important

1. Map of discipline interfacing with translation studies
2. Translator Training
3. The Characteristics of Translation profession.

When translation work is completed, translator should read his own translation and evaluate not as a translator but as a third person. In fact, nobody can evaluate his/ her translated text better than himself/ herself. When appropriate meaning will be restored co-relation between field, Tenor and Mode will be established *Suo-motu*. In conclusion, the new translators should come forward with the best and most appropriate practices of translation. It will take this discipline towards the knowledge production in India in long way. Now to boost-up the 'Skill India', 'Start up India' and 'Stand up India', Technical Translation is going to play very vital role. In this context the role of Higher Educational Institutions and Strategic Electronics Institutes will be very important.

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