

The development of professional English competence in the field of electric power engineering: a philological perspective.

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ANNOTATION

The article examines the interdisciplinary connection between electric power engineering and philology with particular emphasis on the development of professional English competence. In the context of globalization and digital transformation, English functions as the dominant language of scientific and technical communication. The study analyzes the linguistic features of technical discourse in electric power engineering, including terminology formation, syntactic patterns, academic writing conventions, and translation issues. Special attention is given to the role of philological analysis in improving clarity, precision, and safety in professional communication. The research highlights the importance of integrating linguistic training into engineering education to enhance international collaboration and knowledge exchange in the global energy sector.

Keywords: *electric power engineering, professional English, technical discourse, terminology, philology, academic writing, multilingual education, translation studies, engineering communication.*

In the modern world, electric power engineering plays a crucial role in economic development, technological progress, and social stability. At the same time, globalization has transformed professional communication into an international process where English functions as the primary language of science and technology. Therefore, the integration of philology and electric power engineering becomes an important academic and practical task. Philology, as a discipline that studies language, discourse, and communication, provides tools for analyzing and improving professional interaction in technical fields.

Electric power engineering is characterized by a complex terminological system that includes highly specialized vocabulary related to power generation, transmission, distribution, renewable energy technologies, and smart grid systems. Accurate understanding and usage of such terminology require not only technical knowledge but also linguistic competence. From a philological perspective, professional discourse in electric power engineering demonstrates specific lexical, syntactic, and stylistic features. Technical texts are typically characterized by precision, logical structure, passive constructions, nominalization, and standardized terminology. Studying these features helps future engineers develop clear and effective communication skills.

One of the key aspects of philological analysis in electric power engineering is terminology formation and translation. Many technical terms originate from Latin and Greek roots, while others emerge from technological innovation. The rapid development of renewable energy sources, digital monitoring systems, and artificial intelligence in power management leads to the constant creation of new lexical units. Philologists analyze semantic changes, borrowing processes, abbreviation patterns, and the adaptation of English terms into other languages. This is particularly relevant in multilingual educational environments, where students must master both native and foreign professional vocabularies.

Another important issue is academic writing in the field of electric power engineering. Engineers are expected to publish research articles, prepare technical reports, and participate in international conferences. Philological competence ensures coherence, clarity, and adherence to academic standards. The structure of scientific articles in engineering typically includes an abstract, introduction, methodology, results, and conclusion. Understanding discourse organization, cohesion devices, and rhetorical strategies significantly improves the quality of technical documentation.

Digitalization also influences professional communication in electric power engineering. Online platforms, smart monitoring systems, and automated reporting tools require concise and unambiguous language. Philological research contributes to optimizing technical documentation, user manuals, and safety instructions to prevent misinterpretation. In high-risk industries such as power generation and transmission, linguistic precision directly affects operational safety.

Thus, the interdisciplinary connection between electric power engineering and philology enhances both technical efficiency and communicative effectiveness. The integration of linguistic analysis into engineering education supports the development of professional English competence, improves international collaboration, and facilitates knowledge exchange in the global energy sector. In conclusion, philology not only studies language as a cultural phenomenon but also serves as a strategic instrument in shaping professional communication within electric power engineering.

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