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Research Article

DEVELOPMENT OF BASICS OF ELECTRICAL ENGINEERING AND ELECTRONICS IN HIGHER MILITARY EDUCATION

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ABSTRACT

The article discusses an effective lesson, its conditions, and also discusses ways to improve the logical, creative, analytical, non-standard thinking of cadets using interactive methods using the example in fundamentals of electrical engineering and electronics.

KEYWORDS

Effective, interactive, method, tool, assessment, Venn diagram, concept analysis.

INTRODUCTION

A review of the current state of teaching the discipline of electrical engineering and electronics in higher military educational institutions shows the need to improve the study of it in accordance with modern requirements for the professional training of future officers. First of all, it is necessary to determine scientifically based methods of enhancing the training of the discipline in connection with the reduction in the amount of hours allocated to electrical engineering and electronics. At lectures and laboratory classes, it is necessary to put forward problems that encourage work on the independent training of cadets. Self-study should complement and develop the ideas and lessons learned in the classroom. Independent work of cadets with literature and lecture notes in order to master the most complete program material and improve

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professional training is one of the important areas of independent training. And the incentive for any type of independent work is the interest of the cadet in it and the awareness of its usefulness [1,2].

THE MAIN RESULTS AND FINDINGS

In improving the teaching of the course of electrical engineering, the most important are the following educational and methodological activities. It is necessary to improve the provision of cadets with educational and methodological manuals that meet the requirements of the main educational program for training a specialist in this profile. It is necessary to improve the subject of research and training works, which ensure the activation of the involvement of cadets in all types of educational activities. It is important in the development of the discipline of electrical engineering and electronics to conduct practical classes on problem solving. Therefore, it is necessary to systematize the execution of a cycle of independent calculation and graphic tests with subsequent defenses when they are passed. The organization and implementation of such work requires the development of a cycle of tasks on topics and also methodological guidelines for solving typical examples-calculations.

The effectiveness of independent work on theoretical materials is provided in the presence of methodological guidelines on certain important topics, such as "DC electric machines", "Asynchronous motors", "Electric sensors", etc. The small number of existing textbooks intended for higher military educational institutions requires systematization in compliance with the generally accepted graphical symbols established by GOST, and a more rigorous approach to the presentation of educational material that technical disciplines require. A review of the status of the issue shows the need for a textbook on electrical engineering and electronics for military universities that meets the modern requirements of science and practice. In the existing textbooks of electrical engineering and electronics, the importance of the use of advanced electrical technologies for use in military affairs is not sufficiently covered [3].

In the acquisition of skills and skills for conducting experimental research, an important place is given to laboratory classes. The content of these classes should provide the study of the most common electrical measuring devices, electrical machines and other objects of electrical engineering and electronics used in military equipment.

The most important stage of laboratory classes is the preparatory stage, which includes: introduction to the goals, content and means of the forthcoming experiments; identify theoretical study of patterns and relationships that form the basis of an experiment, experimentation and execution. And the success of the preparatory stage is mainly determined by the availability of a methodological manual for laboratory work, which provides preparation for experiments in advance during independent training and directly in the classroom. Practice shows that in many cases, the preliminary independent preparation of cadets for laboratory work during independent training, allows you to conduct theoretical training effectively. As the review of the literature shows, guidelines for laboratory work in electrical engineering for military universities were not issued.

The development of lecture demonstrations and the skillful use of screen tools is one of the most effective ways to increase the activity of cadets at lectures. The basis for improving the efficiency and effectiveness of the cognitive activity of cadets is to involve them in active independent work and other types of

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educational activities to achieve the goals of studying the subject on the basis of didactic tools.

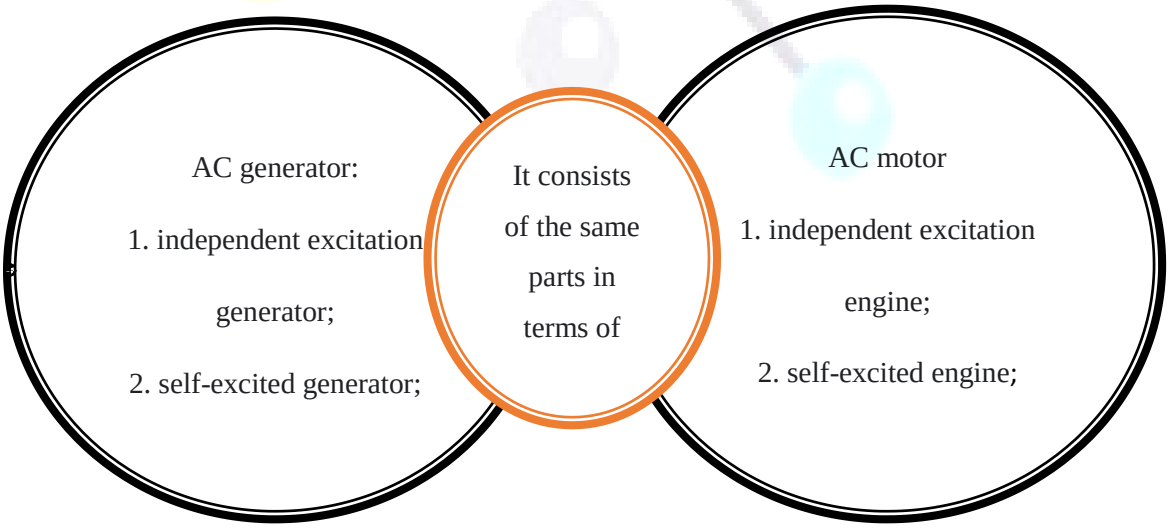
It is no secret that positive results can be achieved through the effective use of interactive methods and tools in the educational process. Here are some examples of the application of a number of interactive methods in fundamentals of electrical engineering and electronics.

Application of Assessment Techniques in the Fundamentals of Electronics and Electrical Engineering

Draw a diagram Inductive simple chain draw a diagram	Write the formula Write the capacitance resistance formula
Test What is alternating current? A) A current that changes value and direction per unit time; B) A current that changes its value but does not change its direction; C) A current whose value changes per unit time; D) A current that does not change its value per unit time, but changes direction.	Definition Electric current generator and the set of devices that enable it to be read is called .....

The method of "Venn diagram" provides students with an analytical approach to the topic, the general essence of the topic on the basis of individual sections focused on developing assimilation (synthesis) skills.

Similarities in the structure of AC machines [4]:



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CONCLUSION

In order to make up for the lack of time allowed for studying the course of electrical engineering and electronics, it is proposed to introduce extracurricular classes and works with various intended purposes. Any training session can be effective only if the student understands the purpose of the lesson and the methods of achieving this goal and has the relevant theoretical knowledge. In order to solve this problem, it is necessary to search for an effective method of organizing the study of the course of electrical engineering and electronics as an integral academic discipline that meets the professional training of cadets in this field of knowledge.

REFERENCES

1. Efremov O. Yu. Military pedagogy: A textbook for. Publishing house:Peter, 2008. - 640 p.
2. Volkov N. So Personality-oriented training of cadets of higher military educational institutions: Diss. Cand. PED. Science / N. T. Volkov.- Yaroslavl, 2000. - 157 p.
3. Batyshev S. Ya. Scientific organization of the educational process. Profpedagogika. - 3rd ed. - Moscow: Higher School, 1980. - 456 p.
4. Пазилова Ш.А. Технология организации и проведения занятий по электротехнике в высших военных учебных заведениях/ XIII Международная научно-практическая конференция. Актуальные проблемы гуманитарных и социально-экономических наук, - Вольск, 2019,С.102- 108.