

*Materials of Conferences***ELECTRONIC TRAINING COMPLEX
“DISPATCHING CONTROL OF
ELECTRICAL POWER SYSTEMS”**

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There are many digital courses on various disciplines, created in different digital educational environment, but among them all we were unable to find analogues in master's disciplines, related to operative-dispatch management in electric-energetic systems, therefore, it proves urgent to describe principles of projecting, structure, functional purpose, methodic of implementing digital training-methodical complex (DTMC) within educational process, created with usage of modern simulation systems for professional operative personnel training [1, 2].

Nowadays the department of electric systems and electric technical facilities carries out works of creating a digital DTMC on operative-dispatch management within electric-energetic systems that includes a block of business games with usage of regime simulators and simulators of operative switch.

The basic purpose of creating such DTMS is to form a professional competence via specialized programme means and multimedia technologies. The foundation of DTMC principles is formed of didactic, psychological, methodical, and ergonomic requirements towards DTMC. IN order to develop a DTMC, we have selected digital educational environment (module objective-directed training system) LMS Moodle that allow us to create a complete module of digital training materials from standard means with an ability to edit and manage them. The basic objectives are: development of concept and structure of DTMC, methodical provision of business games, organization of audit and independent work of students, technical and instrumental equipment of audiences.

The described DTMC includes the following basic components: digital textbook, laboratory practical guide in form of business games, and block of training results diagnostics. The digital textbook is designed for independent learning of theoretical material by students. A test system realizes functions of checking flow and results of theoretical and practical mastering of education material by students. Laboratory practical guide contains methodical guides for business games on operative switch in electric facilities and maintaining electric-energetic system regime. A simulator of operative

switch “Modus” has been selected as a tool for business games on operative switch. Regime simulators of dispatcher “Fenix” and “Finist” have been selected as a tool for business games on maintaining EES [3]. As shows the practice of training personnel of energetic enterprises, it is reasonable to use regime simulators and simulators of operative switch in order to obtain the necessary professional skills as they reflect nature of operative personnel activity in different regimes of operation of electric-energetic systems. Implementation of simulators within educational process requires development of a special training-methodical provision, as students use them as educational, but not training systems.

As primary results show, business games are an efficient method of mastering a wide circle of practical problems on management in electric energy sector by students. This fact supports the purposefulness of their further development as an element of educational process DTMC enables a tutor to assist students in learning and systematizing theoretical knowledge, present material in different ways, combine various technologies of education, control quality of education, realize individual approach towards training, and manage individual work of students. Development of DTMS on operational-dispatch management in electric energy systems within digital training environment Moodle will allow us to present educational materials in a convenient multimedia form, evaluate knowledge quality via testing tasks, and masters will be able to implement the totality of received knowledge and skills during the process of business games and their professional activity.

References

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