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# Organization of research and development work of students in the laboratory “Ionic technologies and covering” of the Department “Electronic Technologies in Mechanical Engineering”

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*The study presents the experience of organizing students' research and development work in the laboratory "Ionic technologies and covering" of the Department "Electronic Technologies in Mechanical Engineering" in Bauman Moscow State Technical University. The distinctive feature of the curriculum is the special course "Engineering Workshop" for senior students. It ensures that students regularly do research and development work. In this paper we describe technical support of the laboratories and directions of scientific and technical work, consider the issues of methodical maintenance for the discipline "Engineering Workshop" based on modern information technologies and reveal its relationship with other disciplines at the department. Particular attention is paid to the individual approach to each student and the organization of their work in the laboratory, when they interact with students doing other courses at the department. Implementation of this approach is provided by creating in the laboratory students' mini-groups performing challenging scientific, technical and development work within the engineering workshop.*

**Keywords:** *students' research work, laboratory process, thin-film technologies, information technologies.*

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