

Development of a Virtual Model Prototype of Teaching and Material Resources of University with Chemical Technology Specialization

**V.A. Nemtinov, V.V. Yukhanov, E.N. Malygin,
S.V. Karpushkin, S.Ya. Yegorov, V.G. Mokrozub,
A.B. Borisenko, Yu.V. Nemtinova**

*Tambov State Technical University, Tambov;
OOO “Morshanskhim mash”, the Tambov region, Morshansk*

Key words and phrases: information technology; software and hardware complex; teaching and material resources; university of chemical technology specialization; virtual model.

Abstract: The article covers the issues of creating a virtual model of educational resources of major university departments with technical specialization including virtual laboratories corresponding to research areas of their staff and specializations for bachelor's, master's and specialist's degrees:

- laboratory of 3D-modeling of components and units of technological equipment;
- laboratory of virtual modeling of industrial equipment and technological systems;
- laboratory of technological systems simulation;
- laboratory of virtual simulators for operators of chemical and technological systems;
- laboratory of virtual models of geographically-distributed objects.

The development of a virtual model of teaching and material resources was based on methods and algorithms of creating virtual models of industrial objects of technological systems created by the team of authors at the Department of “Computer-aided design of processing equipment” at Tambov State Technical University.
