

Three-dimensional models' usage in courses placed on Moodle platform

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Abstract— One of the biggest benefits of virtual education is the ability to easily explain complex processes and principles using animations and interactive 3D models. The purpose of this study is to determine which 3D software product should be used for the display of interactive graphic engineering documents, so that the visualization and manipulation of 3D models provide useful support to students of industrial engineering. In order to create these didactic materials a multitude of tools can be used: AutoCAD, SolidWorks, Inventor, Adobe Acrobat Pro etc. This paper proposes some examples of the above-mentioned didactic materials, including animations and interactive 3D models used in Moodle. **Keywords** — distance learning, e-learning, Moodle, 3D, interactive, CAD, cloud services, educational motivation, Learning Management System LMS, 3DPDF

REFERENCES

- [1] Barbero, B. R., Pedrosa, C. M., & Maté, E. G. "Assessment of 3D viewers for the display of interactive documents in the learning of graphic engineering", Educational Technology & Society, 15 (4), 2012, pp.167-180.
- [2] David Brazinaa, Rostislav Fojtkb, Zuzana Rombovac, "3D visualization in teaching anatomy", Procedia - Social and Behavioral Sciences 143, 2014, pp 367 – 371.
- [3] Aydın Çetin, İnan Güler, "3D Technology selection for a learning management system with analytic hierarchy process, Conference ICL2010, Hasselt, Belgium, pp.1051-1058.
- [4] O. Ciobanu, S. Tornincasa, G. Ciobanu, "Web based learning and training in the field of the enterprise product lifecycle using 3D technologies", 5th international scientific conference eLearning and software for education, 9-10th April 2009, Bucharest, Romania
- [5] Ciobanu, O., Tornincasa, S., "The use of dynamic interactive 3D images of biomedical devices in education," Second International Conference in Visualisation, 15-17 July 2009, Barcelona, Spain, pp. 40-43.
- [6] Kotov S.O., "Interactive 3D objects in educational resources of MOODLE", Open and distance education. 2015. № 4(60), pp,5-11.
- [7] <https://www.pdf3d.com/products/pdf3d-in-powerpoint/>
- [8] <http://www.simlab-soft.com/>
- [9] http://www.adobe.com/aboutadobe/pressroom/pressmaterials/pdfs/Acrobat_3D_AAG.pdf
- [10] <http://www.3dpdf.com/en/client-solution/features.html>
- [11] <https://tetra4d.com/tetra4d-enrich/>
- [12] <http://www.slac.stanford.edu/cgi-wrap/getdoc/slac-pub-15295.pdf>