Abstract

In The ability to visualize our thoughts has always fascinated us. Even more intriguing is the subject of making a computer able to visualize those thoughts, just by understanding the human language. In this paper, a text to scene generation system is proposed for the educational domain where a basic Newtonian physics problem is conveyed to the system in natural language and the scene depicting the problem is generated and displayed to the user. The paper describes the implementation of the system as well as the results obtained. It is based on the integration of advances in NLP and computer graphics technology to generate a virtual environment. It makes it easier for students to visualize the problems and also helps teachers
Visualization of Mechanics Problems based on Natural Language Processing

in explaining better.

References

- Zeng, Xin, Mehdi, Q. H. and Gough, N. E. 2005 3D Scene Creation using story based descriptions. School of Computing and IT, University of Wolverhampton, UK.
- https://gate.ac.uk/: General Architecture for Text Engineering (accessed on 18/7/2014)
- www.blender.org: Blender 3D modeling software (accessed on 1/3/2015)

Index Terms

Computer Science

Information Sciences

Keywords

Natural language processing  Knowledge representation  scene generation  Physics education.