

ScaleDEM – Modelling the dynamical behaviour of particulate systems in industrial processes

DESCRIPTION OF INVENTION

ScaleDem is a software designed for modelling the dynamical behaviour of particle assemblies using the discrete element method (DEM). The software is specialized in an optimal treatment of computational resources and therefore is usable in user-level computing equipment. The innovative simplification method developed in the software has been validated by the scientific community for the industrial application. The software was initially design having in mind the tile manufacturing process, however now it could be use for any industrial application where particulate material is handled.

More information about the innovation and the software can be found in the following webpage:

www.scaledem.org

ScaleDEm is a collaboration between ITC and Ghent University

BUSINESS APPLICATIONS

- Tile manufacturing
- Food industry (harvesting of corn, wheat, etc.).
- Pharma sector
- Plastic manufacturing

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Dynamic analysis of the particulates when experimental analysis is not possible
- Virtual prototyping of new equipment and variables without incurring in expensive experimental procedures
- Improves the decision-making process as it provides scientific data with the specifics of the client
- Detection of homogenization defects in the particulate process during its manipulation, for example segregations of particles or variations in apparent density

STATE OF TECHNOLOGY DEVELOPMENT

The core software has been completely developed, it can be adapted to the specific necessities of a process or a company.

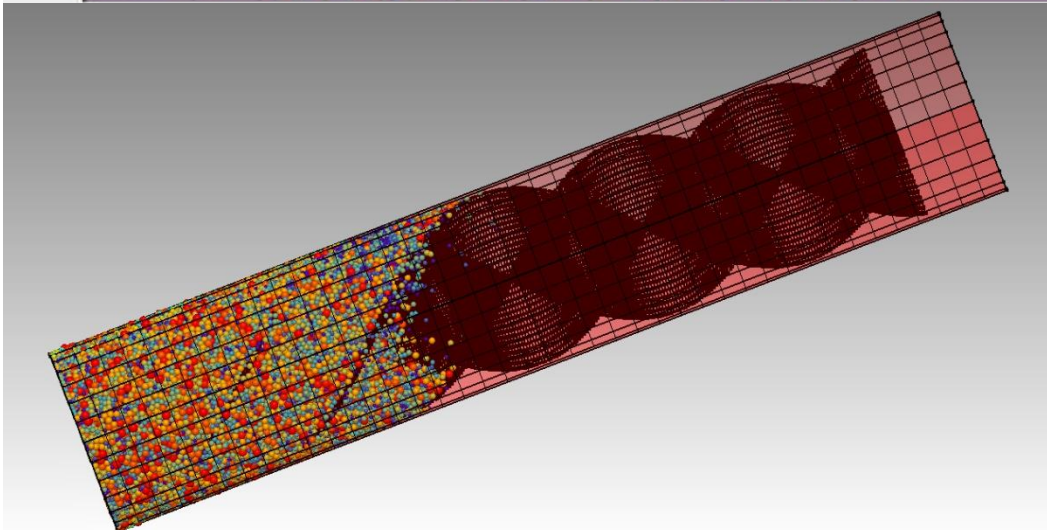
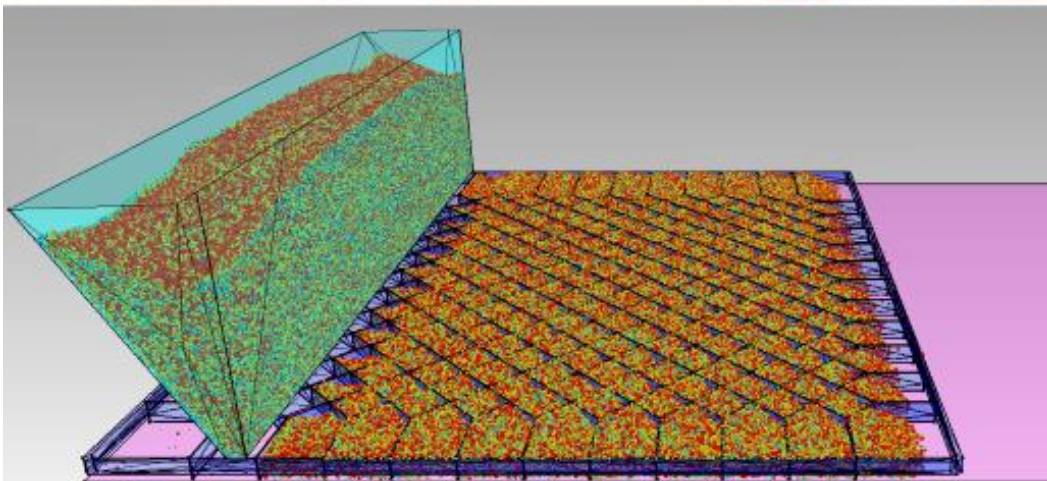
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The software has been developed in-house and it is protected by copyright.



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