

SEMINAR

**IMAGE-BASED CHARACTERIZATION AND DISCRETE
ELEMENT MODELING OF RIGID AND DEFORMABLE
GRANULAR MATERIALS****Speaker****Prof. Qiushi CHEN**

Clemson University , USA

Abstract

Granular materials, such as geomaterials (e.g., sands, gravels, extraterrestrial regolith), biomass feedstocks (e.g., wood chips, switchgrass), are ubiquitous in nature and in engineering applications. The mechanical behavior of granular materials is essentially encoded at the particle level, and methods for characterizing, modeling, and upscaling particle-scale behavior across relevant scales of interest are needed for understanding and predicting the behavior of such materials and the engineering system that they form or interact. In this presentation, Dr. Chen will share recent research efforts on the characterization and discrete element modeling of various rigid and deformable granular materials including geomaterials and deformable biomass particles for various engineering applications.

Biography

Dr. Qiushi Chen is an Associate Professor in the Glenn Department of Civil Engineering at Clemson University. Dr. Chen received his M.S. and Ph.D. degrees from Northwestern University in the USA and his B.S. degree from Shanghai Jiaotong University. He is the vice chair of the ASCE Geo-Institute's Computational Geotechnics Committee and served on review panels of various federal funding agencies. Dr. Chen's research expertise is in the mechanics and computational modeling of granular and porous materials, earthquake-induced liquefaction hazard assessment and mapping. Before joining Clemson, Dr. Chen was a postdoc at the Department of Energy's Sandia National Laboratories and a visiting scholar at Caltech.

**14 August 2023
Monday****10:30 am - 11:30 am****Room 5583 (lift29/30)****Enquiry:**Ms. Rebecca Yau
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