Post-Doctoral Researcher Position

IOWA STATE UNIVERSITY
Agricultural and Biosystems Engineering

Job Opening
The Department of Agricultural & Biosystems Engineering at Iowa State University, Ames, Iowa, has an opening for a postdoctoral researcher associate. The successful applicant will work with the Physical Systems Modeling of Agricultural and Off-road Machinery Systems group. The fellow will participate in a research project to advance Discrete Element Modeling (DEM) capability to model soil/plant/machine dynamics. There will be opportunities to work in close collaboration with industrial partners.

Qualification
Applicant must have a PhD degree in agricultural, mechanical, civil engineering; or related areas such as physics, applied mathematics, material science with relevant expertise.

Responsibilities
Required qualification and experience in the following areas:
• DEM and numerical particle upscaling (particle size distribution, contact models) and associated experience in soil/granular mechanics and mechanical testing of materials.
• Validation and calibration of simulation models.
• Design of experiments and optimization methods.
• High performance computing in a C++ programming applicable to DEM codes and visualization of post-processing data.
• Publications in peer-reviewed journals and presentations at scientific meetings are expected and encouraged.

A strong candidate may also possess:
• Experience in agriculture and construction manufacturing industry.
• Good communication skills and experience to support graduate student research in this area.

Application Information
The position is scheduled to start as soon as the elected candidate is available. The position is for one year and can be renewed for up to one additional year depending on satisfactory performance.

Candidates should send their application materials including cover letter, CV and list of three references to Dr. Mehari Tekeste at mtekeste@iastate.edu.