

# 2017 Muscatine E-Week Banquet

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*The Annual Engineering Week banquet will be convened the evening of Tuesday, February 21, 2017 at the Stanley Auditorium, Muscatine, Iowa.*

*Our featured guest and speaker will be Dr. Karim Abdel-Malek, PhD, Professor of Biomedical Engineering at the University of Iowa.*

*Also scheduled is the award of IES/Muscatine Chapter scholarships.*

**Date:** Tuesday, February 21, 2017  
**Location:** Stanley Auditorium, 225 Iowa Ave, Muscatine, IA 52761  
**Time:** Social – 5:30 pm  
Dinner/Program - 6:15 pm  
**Cost:** Free to Students.  
\$20 for non-students and IES members.

**Mark your calendars - It's the annual event you don't want to miss!**

RSVP by Feb. 17th, 2017 to Andy Ungerman, 563-264-6460, [UngermanAndy@stanleygroup.com](mailto:UngermanAndy@stanleygroup.com)





# VIRTUAL SOLDIER RESEARCH

HUMAN FACTORS ENGINEERING

# Presentation to the The Muscatine Chapter of the Iowa Engineering Society

## **SANTOS The Virtual Soldier**

A human simulator developed at the University of Iowa, aids in the reduction of load for the US Marines, tests new equipment, and helps design new vehicles. Santos® is a computer program developed over the past 12 years by a large team of researchers. Biomechanics, physiology, intelligence and much more has gone into creating new enabling technologies for simulating human motion, performance, and interactivity with equipment. To lighten the load for the military, Santos is able to simulate various load configurations, test a multiple of scenarios, and report back the most optimum designs that enable an agile and light force. Similarly, in the design of equipment and vehicles, Santos is used to test in the virtual world. Santos operates inside a computer, can check for all types of scenarios before the equipment or vehicle is built, thus reducing cost and time.



### **About the presenter**

Dr. Karim Abdel-Malek is internationally recognized in the areas of robotics and human simulation. Dr. Malek is Senior Associate to the Provost, Professor of Biomedical and Mechanical Engineering at the University of Iowa, and serves as the Director of the Center for Computer Aided Design, a world renowned research center with 6 departments, including a national lab and a portfolio of research spanning the Modeling and Simulation area. Dr. Abdel-Malek leads projects with all services of the US Military, and several industry partners including Ford, GM, Chrysler, Rockwell Collins, Caterpillar, and others. He directs the Virtual Soldier Research program for the US Military.

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