

Contact: Diana Gonzalez

**PRESENTATION AT THE UNIVERSITY OF IOWA:**  
**“SANTOS™ – THE VIRTUAL SOLDIER MAKES A DIFFERENCE FOR THE U.S. MARINES”**

**Action Requested:** Receive the presentation.

**Executive Summary:** A human simulator developed at the University of Iowa helps in the reduction of load for the U.S. Marines; tests new equipment; and helps design new vehicles. Santos™ is a computer program developed during the past 12 years by an integrated team of university researchers. Experts in biomechanics, physiology, intelligence and related areas contributed to the creation of new enabling technologies which simulate human motion, performance, and interactivity with equipment. To lighten the load for the military, Santos™ simulates different load configurations, tests a variety of scenarios, and reports on optimum designs that enable an agile and light force. Similarly, in the design of equipment and vehicles, Santos™ is used for virtual testing. Santos™ operates inside a computer and checks for different types of scenarios before the equipment or vehicle is built, which reduces cost and time. The presentation will highlight its capabilities and the current use of Santos™ by military and industry sectors.



Dr. Karim Abdel-Malek, internationally recognized in the areas of robotics and human simulation, is a Professor of Biomedical Engineering. He is the Director of the Center for Computer Aided Design (CADD), a world renowned research center with six departments, including a national lab and a portfolio of research in the Modeling and Simulation areas. Dr. Abdel-Malek leads projects for all services of the U.S. military and several industry partners, including Ford, GM, Chrysler, Rockwell Collins, and Caterpillar. He directs the Virtual Soldier Research program for the U.S. military.