

December 19th, 2017

Brock University Becomes a SantosHuman Worker Safety Research Partner



Brock University's Neuromuscular Mechanics and Ergonomics Lab in Ontario, Canada, has partnered with SantosHuman Inc. through the Santos® University Program to use the company's predictive virtual human modeling and simulation software in studying the relationship between workplace injuries, ergonomics and fatigue.

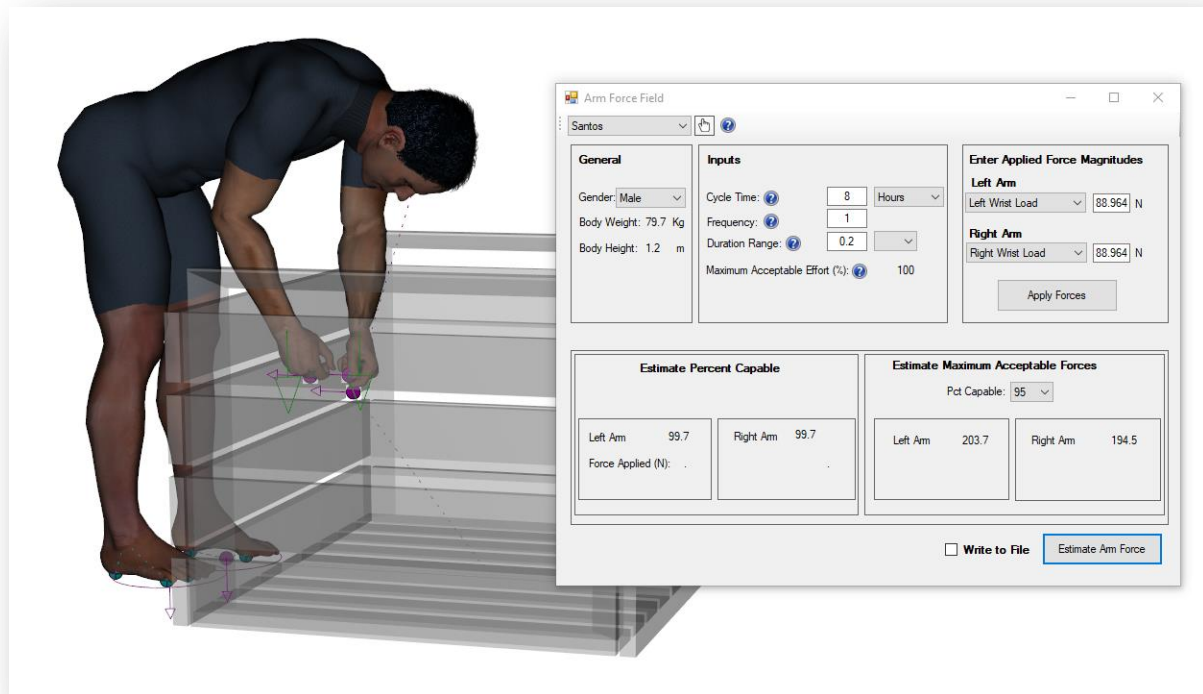
"The Santos Institute is excited to be a part of Brock University's research on upper extremity pain and injury, including carpal tunnel syndrome and repetitive strain injury," said Dr. Tim Marler, Chief Research Officer and Director of the Santos® Institute. "This is an important area of research, and supporting work like this is one of the reasons SHI incorporated Dr. Jim Potvin's and Dr. Nick La Delfa's Arm Force Field (AFF) method (now available through the Santos® AFF Plug-In)."

"SantosHuman has emerged as a world leader in digital human modeling, and the power of this technology is an innovative step forward for the Ergonomics profession," said Michael Holmes, Assistant Professor of Kinesiology at Brock University. "The software allows us to evaluate, in detail, the physical demands of a user while interacting with various workplace and tool designs. This approach can lead to improved worker safety."

Holmes explained that Brock University's Neuromuscular Mechanics and Ergonomics Lab integrates motion capture, robotics and neurophysiology to understand muscle recruitment, fatigue and injury. The Santos University Program provides Brock University with an additional virtual human resource to enhance and expand the university's high-fidelity workplace simulations. In addition, the program provides students in undergraduate and Masters of Professional Kinesiology ergonomics courses with access to SantosHuman's first-of-its-kind predictive human simulation software.

"The SantosHuman partnership provides Brock students with experiential learning opportunities that use state of the art technology to solve real world problems," said Holmes. "Our undergraduate and graduate courses in Ergonomics will use the software for unique applied and practical learning opportunities. This sets our students up for success in a competitive work environment."

December 19th, 2017



Researchers at Brock University will use the SantosHuman Arm Force Field Plug-in to better understand why some people experience workplace injuries and others do not.

Holmes is a Tier 2 Canada Research Chair in Neuromuscular Mechanics and Ergonomics. His research examines how the brain and nervous system interact with the mechanics of hand, arm, shoulder and neck muscles as we perform a variety of tasks. The Canada Foundation for Innovation recently awarded Holmes a grant of nearly \$100,000 for equipment purchases from its John R. Evans Leaders Fund. Learn more about Professor Holmes' educational and research efforts at:

<https://brocku.ca/applied-health-sciences/kinesiology/faculty-research/faculty-directory/michael-holmes-bkin-hons-msc-phd/>

SantosHuman's research partnerships in Europe and North and South America now include University of California-Berkeley, Oregon State University, and Politecnico di Milano, Pontificia Universidad Javeriana, the University of Waterloo and the University of Ontario Institute of Technology.



December 19th, 2017

About the Santos® Institute

Provided through the **Santos® Institute**, the **Santos® University Program** is designed to complement and contribute to projects, courses, and curricula related to:

- Industrial Design
- Computer science
- Digital Human Modeling
- Simulation
- Engineering
- Occupational Health & Safety
- Ergonomics
- Human Factors
- Objective Analysis of Motion Capture
- Biomechanics
- Robotics (the foundation of the Santos® predictive models)

Contact the **Santos® Institute** at institute@santoshumaninc.com to participate in the Santos® University Program.

About SantosHuman

SantosHuman Inc. (SHI) provides virtual human simulation solutions to some of the most recognizable Global companies in the World. The software offers the only existing comprehensive approach to predicting human physical human behavior and performance that can consider human strength, fatigue, flexibility, balance, vision, body-borne equipment, external forces and environmental conditions. Learn more at www.santoshumaninc.com.