

July 3, 2018

## University of Michigan-Dearborn Racing Adopts SantosHuman Inc. Technology for Improving Race Car Design

This month, the University of Michigan-Dearborn Racing team will begin using the Santos® predictive human modeling capabilities from SantosHuman Inc. (SHI) to improve driver performance with the interface of its Formula SAE® racecar. Santos® technologies are provided to institutions of higher education and research in the USA through the **Santos® University Program** which provides free access to state-of-the-art digital human modeling software.

"The software provides the team with the ability to optimize driver performance virtually to avoid the trial and error approach typically used to address operator-centric elements in design," said Steve Beck, President and CEO of SantosHuman Inc.

For 2018, the student-led UM-Dearborn Racing team set several goals to improve driver task performance including more accurate modeling of various body types to support a range of operator sizes and predicting centers of gravity. The team is employing SHI's first-of-its-kind predictive human modeling software, Santos® Pro, to obtain task-based driver performance trade-off analysis data which will be used to inform and support critical design decisions at the earliest stages of the Team's racecar development where change is still an option.

"It is especially exciting to be working with UM, given their expertise and extensive past involvement with the digital-human-modeling (DHM) community," said Dr. Tim Marler, Chief Research Officer and Director of the Santos Institute which oversees the Santos® University Program at SHI. "Not too long ago, there were only pockets of applied research with DHM software in academia and industry, but that's changing, and software like Santos is increasingly pervasive in various fields and commercial sectors. Santos Institute is honored to be part of this growth and to provide novel capabilities and tools to tomorrow's engineers and designers. Frankly, it's just fun to see where innovative students take DHM."

SHI welcomes the University of Michigan to its educational and research partnerships in Europe, North America, and South America which include University of California-Berkeley, Oregon State University, Politecnico di Milano, Pontificia Universidad Javeriana, the University of Waterloo, the University of Ontario Institute of Technology, Brock University, and Nipissing University.

For more about UMD Racing, visit <a href="https://umdearbornfsae.weebly.com/">https://umdearbornfsae.weebly.com/</a>.

## July 3, 2018

## **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 <a href="mailto:institute@santoshumaninc.com">institute@santoshumaninc.com</a> to participate in the Santos® University Program.

## **About SantosHuman**

SantosHuman Inc. provides virtual human-in-the-loop solutions to some of the most recognizable global companies in the world. The software offers the only existing comprehensive approach to predicting physical human behavior and performance that can consider strength, fatigue, flexibility, balance, vision, body-borne equipment, external forces and environmental conditions. Learn how to predict market failure at the earliest stages of design at <a href="https://www.santoshumaninc.com">www.santoshumaninc.com</a>.