IST was created to be the university’s research arm in M&S. For more than 35 years the institute has stretched the horizons of simulation and training knowledge.

With one of the nation’s first truly multidisciplinary graduate programs in M&S, the university and IST provide numerous opportunities for research and scientific advancement.
IST has helped modeling, simulation, and training emerge as a recognized field of study and a viable commercial business sector. Our mission is to advance the state of the art and science of human-centered Modeling and Simulation (M&S) by:

- Performing basic and applied simulation research
- Supporting education in M&S and related fields
- Serving public and private simulation communities

Although Defense supports many research efforts at IST, a strong bi-directional transfer exists amongst IST, Defense, and non-Defense sponsors, expanding IST’s growing portfolio of research for other government and industry.

IST maintains close contacts with many UCF departments and centers participating in MS&T research. Joint faculty appointments, graduate research sponsorships, and positions on various committees help accomplish this. UCF provides an impressive pool of scientific backgrounds and laboratories available to augment IST’s research efforts.

The Institute actively recruits UCF students to help its research scientists provide solutions to real-world challenges. Graduates of IST internships and of the numerous disciplines at the university that support MS&T research are advancing technology through careers in academia and industry.

Major Research

Ongoing programs below sharpen IST’s MS&T focus on areas related to enhancing human performance.

- Innovative I/O devices
- Modeling complex systems
- M&S maturation processes
- Information systems
- Computer graphics
- Additive manufacturing
- Adaptive, intelligent systems
- Interactive entertainment
- Robotics/Autonomous systems
- Virtual, mixed, augmented reality
- Advanced research computing
- Human-agent, human-computer interface
- Mixed, augmented, virtual reality systems
- Multi-modal M&S
- Distributed learning
- Team performance
- Cognitive science
- Mobile learning
- Public safety

Numbers

Over the past 10 years IST has secured more than $150 million in research funding. More than 900 students graduated from UCF with a minimum of one year working on MS&T-related research projects at IST, most having secured positions in MS&T-related industry and in government. Currently, the Institute has 67 research faculty and over 100 Graduate Research Assistants (GRAs). The GRAs gain valuable research and career-enhancing experience at IST while working on advanced degrees.

Facilities

IST Laboratories and administrative offices occupy more than 80,000 sq. ft. at its four locations in Central Florida Research Park (to the left in order mentioned). IST’s simulation & training labs and offices occupy two floors of the five-story Partnership II building alongside the US Army, a major tenant occupying two floors. Nearby Partnership III houses IST labs, training rooms, and conference rooms on two floors. Three remaining floors are devoted to U.S. Army and Marine Corps simulation-and training-related activities. IST occupies approximately 2,000 sq. ft. of office space in the new Partnership IV building, formally known as the SIAC building before being purchased by UCF. The Army Research Laboratory - Orlando, SFC Paul Ray Smith Center (30,000 sq. ft.) houses labs for U.S. Army and IST research projects.

IST houses UCF’s high performance computing systems, dedicated to advancing MS&T-related research with improved interactivity. The system is available to others in the research community.

To the left is one of our many spacious conference rooms and to the right is the beautiful lobby of Partnership III.