2014 NTSA Modeling & Simulation Awards

for Outstanding Achievement in Modeling & Simulation

Each year, the Governor's Awards and NTSA M&S Awards are presented to individuals or teams for outstanding achievements in the development or application of models and simulations. Awards may be given for outstanding achievement in the specific M&S functional areas of Training, Analysis, and Acquisition, and for outstanding achievement in support of the overall M&S effort (Cross-Function). Individual Lifetime Achievement awards may also be presented.

NTSA is pleased to announce the following winners of the 2014 Governor's Awards and the 2014 NTSA M&S Awards for Outstanding Achievement in Modeling & Simulation.

2014 Governor's Award for Lifetime Achievement in Training & Simulation

Mr. Stephen A. Jackson
The DiSTI Corporation

Mr. Stephen A. Jackson has made significant contributions to the simulation and training industry during his nearly 40-year tenure. Beginning in the 1970s as a programmer for nuclear power plant simulators, he went on to develop Reflectone's Dynamic Preemptive Scheduler, and also to serve on the FAA Advisory Committee that paved the way for today's zero-flight time training simulators. In the 1990s, he was instrumental in the development of simulator rides at Busch Gardens and Sea World. In recent years, Mr. Jackson's management of 3-D virtual maintenance training programs has helped shape how these devices are scoped, acquired, and developed.

2014 Governor's Award for Outstanding Achievement in Training & Simulation

Gaming Research Integration for Learning Laboratory (GRILL)
Air Force Research Laboratory, 711th Human Performance Wing, Human Effectiveness Directorate

The Gaming Research Integration for Learning Lab, part of the Air Force Research Laboratory

(AFRL), Warfighter Readiness Research Division, has demonstrated continued outstanding achievement in modeling and simulation (M&S) since their science, technology, engineering and mathematics (STEM) program's inception in 2011. The program's goal is to mentor students in fields of study related to M&S, increase teachers' proficiency with M&S, and explore the application of game-based technology to support the warfighter and enhance military readiness.

2014 NTSA Modeling & Simulation Award Winners

Acquisition

Framework for Assessing Cost and Technology (FACT)
Marine Corps Systems Command (MCSC), Naval Surface Warfare Center (NSWC), Georgia Tech Research Institute (GTRI)

FACT brings system acquisition into the 21st Century; FACT streamlines the trade space analysis effort by allowing engineers, logisticians and cost analysts to concurrently assess the impacts of changes in design, budget or maintenance strategy on a system's cost and performance. FACT uses a model-based systems approach to enable a rapid, comprehensive evaluation of system designs during early phases of an acquisition program. It provides the acquisition team a "System of Systems" understanding of the interrelationships of design, cost and reliability factors to evaluate hundreds of thousands of configurations in a single data environment. FACT is instrumental in MARCORSYSCOM's plan to execute acquisition programs according to Better Buying Power initiatives.

Analysis

ALEGRA
Sandia National Laboratory, U.S. Army Research Laboratory, and Project Manager Armored Brigade Combat Team

The team from Sandia National Laboratory, Army Research Laboratory, and Project Manager Armored Brigade Combat Team is commended for maturating ALEGRA into an invaluable, highly advanced hydrodynamics code for the development of protection technologies. Their efforts have produced sophisticated armor modeling using "multiphysics" capability. This capability has been used to develop current armors for Army platforms such as MRAP, Abrams, and Bradley. ALEGRA is also critical to the development of next generation technologies, including electromagnetic armor.

Cross-Function

AMSAA FDHS M&S Analysis Team
U.S. Army Materiel Systems Analysis Activity (AMSAA)

The Field Deployable Hydrolysis System (FDHS) needed to be rapidly deployed to meet a national priority - to eliminate the chemical weapon agents and precursors from the Syrian Arab Republic. The FDHS is designed to change chemical warfare materiel into compounds not useable as weapons. The need for shipboard operational capability – and the criticality of the effort - necessitated analyses and design changes to be implemented in several weeks instead of the normal several months or years usually required for this magnitude of project. The FDHS M&S Analysis Team made direct system changes that significantly reduced risks to operators and the mission. These enhancements, developed with significant analytical underpinnings, are now part of the FDHS system design and operating procedures. This was an incredible analytical success wherein modeling and simulation shaped decisions, systems, procedures, and deployments.

Training

F-35 Lightning II Training System Team
U.S. Air Force 33rd Fighter Wing and Lockheed Martin

In a joint effort across 12 nations, the F-35 Lightning II program is the centerpiece of the 21st century global security strategy. The F-35 Training System is redefining how pilots and maintainers train; historically, pilots trained by flying, and maintainers reached competency through on-the-job training. The F-35 Training System is the first fighter platform to accomplish the majority of initial qualification (72 percent) through simulation, to deliver the most efficient path to learning. On the maintenance side, 95 percent of training occurs during computer-based courses and hands-on exercises with simulators, and 5 percent occurs during training with the aircraft at the flight line. The F-35 Training System advances simulation to deliver an affordable and highly effective training experience.

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