Presented by Binghamton University, Thomas J. Watson School of Engineering and Applied Science, in cooperation with the American Institute of Aeronautics and Astronautics Modeling and Simulation (AIAA) Technical Committee.

**FLIGHT AND GROUND VEHICLE SIMULATION COURSE**

**JANUARY 23-27, 2017**

The Flight and Ground Vehicle Simulation Course is a unique five-day program co-sponsored by the State University of New York at Binghamton and the American Institute of Aeronautics and Astronautics (AIAA) Modeling and Simulation Technical Committee. Their combined efforts have produced a program that addresses all major components and subsystems comprising today’s complex flight and ground vehicle simulators.

**Who Should Attend**

Engineers, system hardware and software design specialists, managers, and simulation support personnel, including product sales/marketing representatives and other professionals associated with the specification/design, testing, implementation or acquisition of modern flight and ground vehicle simulators.

**Objectives**

The course provides a comprehensive overview for professionals seeking a working understanding of the key components of flight and ground vehicle simulation. It serves as a major forum for practicing simulation engineers seeking state-of-the-art information about system design, applications and research trends.

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**Main Course Instructors and Topics**

- **Olen Atkins, Wegmann USA**
  - Computer Image Generation
- **Professor Frank Cardullo, Binghamton University**
  - Simulation Fundamentals
  - Motion and Force Cuing
  - Simulator Systems Integration
- **Dr. James L. Davis, Sagetech Corp.**
  - Visual Perception
  - Visual Display Systems
- **R. Thomas Galloway, Consultant, and David Gingras, Bihrle Applied Research Inc.**
  - Mathematical Modeling of Vehicle Dynamics
  - Simulation Validation and Evaluation of Flight Simulators
- **Dr. Valerie Gawron, MITRE Corp.**
  - Simulation Applications in Training
- **Roy W. Latham, CGS Development Corp.**
  - Real-Time Computing
- **Dr. Jeffery Schroeder, Federal Aviation Administration**
  - Flight Simulator Qualification
- **James R. Takats, OPINICUS Corp.**
  - Flight Control System Simulation
- **Dr. Andreas Tolik, MITRE Corp.**
  - Distributed Simulation/High-Level Architecture Overview

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**Specialized Short Courses**

**Visual System Specification and Acceptance Tests Course**

January 30 – 31, 2017

*Dr. SaiKou Y. Diallo, Old Dominion University*

Introduction to visual databases, “real-time” simulation, the database as a component of the visual system and of the simulation, database design, structure and development tools, database components, source data, optimization tricks and shortcuts.

**Simulation Interoperability Standards**

January 30 – 31, 2017

*Dr. Saikou Y. Diallo, Old Dominion University*

This advanced course provides training and exercises on IEEE Standard 1516 for Modeling and Simulation (M&S) High Level Architecture (HLA) and an introduction to IEEE 1516 Distributed Interactive Simulation (DIS). Topics covered include: Protocol Data Units of DIS, Object Models and Templates (OMT), Modular and Real-time Platform Reference (RPR) Federation Object Models (FOMs), Runtime Interface Services and building a simple federation. All topics are supported by practical exercises utilizing supplied computers.

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**Registration**

Advance registration is mandatory as enrollments are limited to ensure instructional quality.

Best method to register: flightsim.binghamton.edu

Questions: Call 607-777-2754 or e-mail wtsnindy@binghamton.edu.

Registration fees also include parking, morning and afternoon refreshments, lunches and a reception.

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**Fees**

*Early bird fees through Oct. 14 / regular rate starts Oct. 15*

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Office of Industrial Outreach
Thomas J. Watson School of Engineering and Applied Science
PO Box 6000, Binghamton, NY 13902-6000
Phone: 607.777.2754 | Fax: 607.777.2825 | binghamton.edu/watson/industry

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In 1929, Edwin A. Link, “the Father of Flight Simulation,” received his first patent for his pilot trainer in Binghamton, N.Y. What Link started as a simple and ingenious way of training pilots has evolved into an integral part of the engineering design process. Simulation saves lives, time, money and the environment, and it provides a means to prepare for tasks that cannot be trained for on a real system.

2016 marks the 32nd year that Binghamton University has proudly hosted these Flight and Ground Vehicle Simulation courses. Technical training provides a significant return on investment and educates leaders in the field. Take advantage of this opportunity to have world-renowned simulation experts guide you and your staff during your visit to Binghamton, the “Cradle of Flight Simulation.”

REGISTER
Advanced registration is required; enrollment is limited to ensure instructional quality. For more information, call 607-777-2154 or send e-mail to wtsnindy@binghamton.edu.

flightsim.binghamton.edu

33rd Annual Flight and Ground Vehicle Simulation Course
5-DAY COURSE JANUARY 23-27, 2017
2-DAY COURSES JANUARY 30-31, 2017

33RD ANNUAL FLIGHT AND GROUND VEHICLE SIMULATION COURSE

JANUARY 23 – 27, 2017, BINGHAMTON UNIVERSITY, BINGHAMTON, NEW YORK