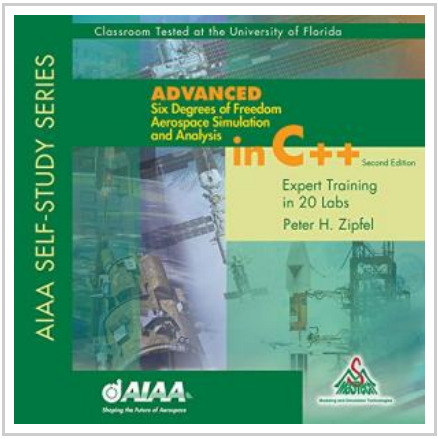

Advanced Six Degrees of Freedom Aerospace Simulation and Analysis in C++

By Peter Zipfel

American Institute of Aeronautics Astronautics, United States, 2014. CD-ROM. Book Condition: New. 2nd Revised edition. Language: English . Brand New. The culmination of the AIAA Self Study Series on modeling and simulation (MS) is this course on high fidelity aerospace simulations. If you have mastered Peter Zipfel s previous publications, or if you are a professional working in MS, you will profit from this interactive training on advanced aerospace systems in C++. In 20 Labs you learn how to formulate the six-degrees-of-freedom equations of motion over the WGS-84 rotating elliptical Earth and study the aerodynamics, propulsion, and flight controls of a hypersonic ascent vehicle. Then you insert a transfer vehicle into orbit, and release an interceptor that rendezvous with a space station or intercepts a satellite. You use 17 progressively more complex simulations that model such advanced systems as INS, GPS with Kalman filter, star tracker, rendezvous, and intercept guidance with phased array seeker. You will be rewarded with a sophisticated simulation of a three stage hypersonic vehicle with orbiting space station and ground tracking radar, as well as Matlab(R) m-files for flight controller design. This course builds on two other self-study courses entitled Building Aerospace Simulations in C++, Third...

Reviews

Most of these publication is the perfect ebook accessible. It is amongst the most awesome publication i have got read through. You wont truly feel monotony at whenever you want of the time (that's what catalogs are for regarding in the event you request me).

-- ***Prof. Edgar Kshlerin***

It is easy in study safer to comprehend. It can be writter in basic phrases and never confusing. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Emmitt Harber***