Introduction to Propulsion Simulation Using NPSS
Short Course

Southwest Research Institute
6220 Culebra Rd.; Bldg. 256, EDO Training Center
San Antonio, TX
April 2021 (tentatively, pending COVID pandemic)
EDO Training Room

Course Overview
Numerical Propulsion System Simulation®, NPSS®, is an object-oriented, multi-physics, engineering design, and simulation environment that enables the development, collaboration, and seamless integration of system models. It is primarily used in aerospace applications for modeling air and liquid propulsion systems and for the integrated analysis of aerospace vehicles. This introductory course is divided into ten modules and one workshop that cover the basic concepts and features of NPSS. Each module is accompanied by hands-on exercises. After completing the course, the student will be able to create and run system models using the NPSS software. The course is intended for engineers responsible for modeling or analyzing the performance of thermo-dynamic and fluid/thermal systems.

Instruction is provided by experienced SwRI staff who also serve on the NPSS development team.

Cost
The short course cost is $1,250 USD per registrant.

Registration includes three and one half days of course instruction, class exercises, copies of the training materials, and three lunches.

Course Topics
- Introduction to NPSS
- Anatomy of an NPSS Model
- The NPSS Solver
- Variables, Arrays, and Tables
- Elements
- Functions, Arrays, Units
- Design and Off-Design
- Workshop: Develop a Complete NPSS Model

For more information, please contact:
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