



Mechanical and Aeronautical Engineering Department  
University of California Davis  
Davis, California 95616-5294

## 2001-2002 Monthly Seminar Series on Space Research

3<sup>rd</sup> Thursday 4:10-5:00 p.m., refreshments will be provided at 4:00 p.m.

### **LAUNCH VEHICLE DESIGN IN A CHANGING WORLD**

#### ***Dr. Charles A. Smith***

2<sup>nd</sup> Generation Reusable Launch Vehicle Program  
NASA Marshall Space Flight Center, Huntsville, AL

Date: Thursday- January 17, 2002    Time: 4:00-5:00 pm    Location: 1065 Engineering II

#### ABSTRACT

This seminar will discuss latest developments in NASA's Space Launch Initiative. Specifically, we focus on the 2nd Generation Reusable Launch Vehicle (RLV) Program, which seeks to mature the technology that would enable the development of a future low-cost and highly reliable reusable launch vehicle architecture to replace the existing Space Shuttle System. The program follows a rigorous systems engineering process, driven by requirements, to ensure appropriate trade studies and systems analyses are conducted that identify the best and most innovative design solutions. The role of NASA's Intelligent Synthesis Environment in the 2nd Generation RLV Program will also be highlighted.

#### ABOUT THE SPEAKER

Dr. Smith is the Deputy Manager of the Systems Engineering & Integration Office for the 2nd Generation RLV Program at NASA's Marshall Space Flight Center. The 2nd Generation RLV Program seeks to mature the technology that would enable the development of a future low-cost and highly reliable reusable launch vehicle architecture to replace the existing Space Shuttle System. The program will follow a rigorous systems engineering process, driven by requirements, to ensure appropriate trade studies and systems analyses are conducted that identify the best and most innovative design solutions. Prior to his current position he held a variety of technical and management positions at NASA's Ames Research Center in Mountain View, CA, including Acting Chief, Aeronautical Technologies Divisions, Assistant Director of Aerophysics for Facilities and Executive Assistant to the Director. His personal research areas are in the fields of aerodynamics and aeroacoustics. He received his BS in Aerospace Engineering from the University of Michigan and MS and Ph.D. degrees in Aeronautics and Astronautics from Stanford University.

**For more information about SpaceED program or the seminars please contact  
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Members of the campus community and visitors from the region are welcome to attend the seminar series. Sign-in is required at the event. SpaceED seminar will replace MAE297 seminar on 3<sup>rd</sup> Thursdays.

SpaceED seminars are supported in part by California Technology and Space Alliance