

# DEPARTMENT OF MECHANICAL ENGINEERING

## WILLIAM MAXWELL REED SEMINAR SERIES

### “STS – 51L (Space Shuttle Challenger) Accident Case Study”

Sujit Sinha

University of Kentucky

**Abstract:** The Space Shuttle Challenger Accident was one of those rare historic moments in which everyone recalls exactly where and when they learned of the tragedy. The event shut down US human space flight for 2.5 years and serves as a case study that is used in both Engineering and Business Schools. The presentation will cover the events leading up to that day, the decision to proceed with the launch, and the subsequent accident investigation and solid rocket motor redesign. I will also discuss my personal perspective of the Challenger launch, as I was a flight controller on that fateful day. Included in the presentation will be actual charts from the teleconference where engineers sought to postpone the launch; plus, actual documentation from the Presidential Commission’s Challenger Accident Investigation Team, such as charts, photographs, and video. The lessons to be learned cover a wide array of topics from engineering design, to presentation skills, to business pressures, to decision making processes. The objective of the presentation is to help prepare students for the host of factors that they may face during their careers.

**Bio:** Mr. Sinha has acquired over 30 years of broad ranging experience from fashion to high-tech/aerospace product development, to business strategy, to information technology. He began his career part of the Space Shuttle launch team at NASA, where he played a key role on the Presidential Commission's Challenger Accident Analysis Team, and in the subsequent Solid Rocket Motor redesign and Shuttle return-to-flight. From there he went on to Marketing at American Airlines, and then as an advisor to the Secretary of Defense’s Office at the Pentagon. Mr. Sinha then transitioned to management consulting for A.T. Kearney, where he was an expatriate in Europe, and helped Global Fortune 1000 CEO’s with business strategy and operational improvements. He next moved to Motorola and led IT Strategy, Architecture, and Innovation, followed by leading Global IT Supplier Management at Motorola Mobility, which was acquired by Google. Mr. Sinha then became the CIO at Rev Up Brands, a global designer, manufacturer, and retailer of dance and figure skating apparel. He is currently a Ph.D. student at the University of Kentucky and serving on College of Engineering’s Alumni Board. Mr. Sinha has served on the AmberPoint board of directors and the Hewlett-Packard Advisory Board. He was selected as a Top 100 IT Leader by ComputerWorld magazine. Mr. Sinha earned an MBA from The Wharton School, University of Pennsylvania. He has also received an M.S. in Mechanical Engineering from the University of Alabama in Huntsville, and a B.S. in Mechanical Engineering from the University of Kentucky.

**Date: Friday, Feb. 21<sup>st</sup>**

**Place: CB 106**

**Time: 3PM**

**Contact: Dr. Alexandre Martin 257-4462**

Meet the speaker and have refreshments

Attendance open to all interested persons