



**AIAA/AFA/IEEE(AES)  
Joint Section Meeting**

Thursday, February 26, 2015

**Dr. Joseph R. Fragola  
President and CEO, Asti Group, LLC**

**“Risk Based Design”**



**Location: Bethpage Public Library  
47 Powell Avenue  
Bethpage, NY 11714**

**Time: 6:00 PM Social Time  
6:30 PM Pizza  
7:00 PM Presentation**

**Cost for Pizza: \$5, Members and Guests  
Free, for Students**

**RESERVATIONS REQUESTED  
RSVP BY February 25, 2015  
to: David Paris at  
davidsparis@optonline.net  
or (516) 458-8593**

Design, a distinctly human process and one that distinguishes man, has existed since prehistoric times and has always involved risk; addressing risk directly as part of the design process has facilitated the rapid advances in the designs we see today. The lecture will cover the history of design going back to the Greeks and Romans; minimizing and controlling risk; rules of thumb and factor of safety; qualitative and quantitative methods; risk assessment using reliability and game theory. Examples of real world creations will be shown to illustrate design and risk concepts.

Dr. Fragola is President and CEO of the Asti Group, LLC. He has over 40 years of experience in the aerospace, offshore oil, nuclear power and nuclear science industries. He has worked for Grumman Aerospace Corporation, and IEEE Headquarters and has been a Principal Scientist and Vice President at SAIC and Valador, Inc. He has established an international reputation in the areas of hardware, software and human reliability and risk analysis and has been awarded the NASA Astronaut Silver Snoopy Award, the NASA Exceptional Public Service Medal, the IEEE Region 1 Award and Fellowship. He is an AIAA Associate Fellow and has been a visiting professor at the University of Strathclyde in Glasgow Scotland from which he received a D.Sc, Honoris Causa.

Dr. Fragola has presented over 100 papers and authored three books. He has lectured widely in the US, China, the Netherlands and elsewhere. He has twice received the P.K. McElroy Award for best paper and the Alan O. Plait Award for best tutorial at RAMS.

Dr. Fragola was the Principal Investigator of the 1995 Space Shuttle Risk Assessment, was one of the few contractor participants in the NASA Exploration Systems Architecture Study, and was the contractor lead on the NASA Exploration Safety Study. He has been one of the pioneers of the concept of Risk Based Design in NASA and elsewhere over the past decade

**Directions:** The library is west of Route 135 in Bethpage. Take Route 135 to Exit 8, then West on Powell Ave. for about 0.25 miles. The library is on the south side of the street. Park across Powell Ave., opposite the library.