



## Seminar Announcement: *An Introduction to Cost Risk Analysis* Presented by Mr. Paul Garvey

The Greater Alabama Chapter of the Society of Cost Estimating and Analysis (SCEA) and the Huntsville Regional Chapter of the International Council on Systems Engineering (INCOSE) are hosting a one-day seminar for both members and non-members on the subject of Cost Risk Analysis. Paul Garvey, one of the leading experts in the field, is teaching the seminar. We welcome anyone interested in this cutting edge cost topic to attend. Please contact Christian Smart, Greater Alabama SCEA Chapter President at 256-705-8537 or [christian.b.smart@saic.com](mailto:christian.b.smart@saic.com) to express your interest in attending or to request further information. Registration instructions and form follow.

### Seminar Details

**Topic:** An Introduction to Cost Risk Analysis

**Presenter:** Mr. Paul Garvey, The MITRE Corporation

**Date:** Tuesday, March 15, 2005

**Time:** 8:00 – 5:00 (registration is at 8:00, speaker begins at 8:30)

**Location:** Research Park, Huntsville, AL

**Price:** \$150 per person for SCEA and INCOSE members, \$200 for non-SCEA/INCOSE members (includes box lunch and refreshments)

**Continuing Education:** CEU credit will be awarded for attending the course which can be used for recertification points for SCEA Certified Cost Analysts

**Materials:** All attendees will receive a 200+ page notebook containing the presentation materials

### Topic Summary

#### **An Introduction to Cost Risk Analysis**

“The Only Certainty is Uncertainty” – Pliny the Elder

Cost is a driving consideration in decisions that determine how a high-technology system is developed, produced, and sustained. Critical to these decisions is quantifying how technological and economic risks may affect a system's cost.

This course provides a comprehensive introduction on how probability methods are applied to model, measure, and manage risk in the cost of engineering today's advanced systems. The course material is developed from the book *Probability Methods for Cost Uncertainty Analysis – A Systems Engineering Perspective*

(<http://www.dekker.com/servlet/product/productid/8966-0>).



Throughout the lecture, detailed discussions on technical issues associated with cost uncertainty analysis are given. This includes the treatment of correlation between the cost of various system elements, how to present the analysis to decision-makers, and the use of bivariate probability distributions to capture the joint

interactions between cost and schedule. Analytical techniques from probability theory are stressed, along with the Monte Carlo simulation method. Hands-on examples and case discussions are provided to illustrate the practical application of theoretical concepts.

### Speaker Biography

**Paul R. Garvey** is Chief Scientist, and a Director, for the *Center for Acquisition and Systems Analysis* – a Division at The MITRE Corporation. Mr. Garvey is internationally recognized and widely published in systems cost analysis, cost uncertainty/risk analysis, and in the application of decision analytic methods to problems in systems engineering risk management. He lectures frequently on these and related topics to government agencies and academic institutions in the US and abroad.

Mr. Garvey has served on numerous government and industry technical panels and committees. These have included: the national peer review committee on the use of risk models by the Department of Energy (1991), the Federal Workshop on Risk Assessment Techniques (1991), the government's acquisition reform review team for the United States Air Force risk management guide (1996), and membership on the OSD risk management working group (1998). In 1995, Mr. Garvey was among 100 scientists invited by NATO Panel 7 (Operations Analysis Group) to present research on modeling uncertainty in defense decision-making. During the spring of 2001, Mr. Garvey was the co-lead for government requested independent reviews of two critical FAA acquisition programs, whose findings were presented at hearings by the *US House Committee on Transportation and Infrastructure*.

He authored the textbook *"Probability Methods for Cost Uncertainty Analysis: A Systems Engineering Perspective"*, currently in its third printing, published by Marcel Dekker, Inc., January 2000. In 2001, Mr. Garvey was invited by Marcel Dekker's Chairman to serve on the Editorial Advisory Board of the firm's *Statistics Series* of textbooks. His technical articles have appeared in books published by the IEEE Computer Society Press, Springer-Verlag's *Economics and Mathematical Systems* series,

and John Wiley & Son's *Encyclopedia of Electrical and Electronics Engineering*. In addition, his articles have appeared in professional refereed journals such as *IEEE Software*, *Military Operations Research*, *The Journal of Cost Analysis*, and the *Acquisition Review Quarterly*, published by the Defense Acquisition University. Mr. Garvey is a four-time best paper award recipient from the United States Department of Defense Cost Analysis Symposium.

### Pricing

The seminar cost for SCEA and INCOSE members is \$150. For those who are not members of either organization, the cost is \$200 (includes SCEA membership). Included in the cost of the seminar are lunch as well as morning and afternoon refreshments.

### Registration

To register for the seminar, please fill out the form below.

If paying by check, make it payable to SCEA and mail it to:

SAIC c/o Gayle Reese  
675 Discovery Drive  
Suite 300  
Huntsville, AL 35806

If paying by credit card, mail it to the address listed above or fax it to Gayle Reese at 256-705-8608.

Be sure to sign up by February 28<sup>th</sup>. Cancellations allowed until two weeks preceding the seminar. After the two-week point, substitutions are allowed, but no refunds will be issued.

# 2005 SCEA Greater Alabama and INCOSE Greater Huntsville Cost RiskSeminar Registration Form

Please fill out the form and submit payment (make checks payable to SCEA) to:

SAIC c/o Gayle Reese  
675 Discovery Drive  
Suite 300  
Huntsville, AL 35806  
Fax: 256-705-8608

Name:	
Organization:	
Address:	
E-mail:	
Phone Number:	
Are you a SCEA member?	
Credit Card Type (Visa, MC):	
Credit Card Number:	
Expiration Date:	
Signature:	