



# Chesapeake Chapter INCOSE

International Council on Systems Engineering

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Vol. 1 Issue 3

## March 2010 E-Newsletter

### Dinner Meeting - Wednesday 17 March 2010

#### Business Value of Agile Methods

*Dr. David F. Rico; Boeing Cyber Solutions*

**Presentation:** This brief is an introduction to Agile Methods, an overview of popular Agile Methods, and a brief survey of the benefits of Agile Methods as reported by major industry studies (including rarely seen, late-breaking economic data and results from the top consulting firms).

**Meal:** Corned Beef and Cabbage; Parsley potatoes; and Green beans

**Reservations:** By website: Credit card via PayPal, go to our [>>Events](#)

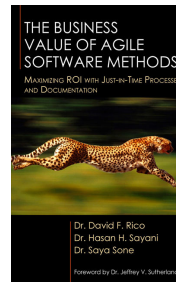
[Page<<](#)

**By phone or email:** Contact Dave Griffith at [d.griffith@ngc.com](mailto:d.griffith@ngc.com) or call 410-993-2806

*For details on the presentation, more about the speaker, cost details, cancellations, and directions - [>>please download this month's flyer](#) [HERE<<](#)*

**Presentation ONLY: FREE (no reservations necessary)**

The purpose of the Chesapeake Chapter is to foster the definition, understanding, and practice of world class systems engineering in industry, academia, and government. In light of that goal, every month at our dinner meeting we have a drawing for the latest in Systems Engineering literature. So come on out for a chance to win.



#### **This month's door prize is:**

**Business Value of Agile Software Methods Maximizing ROI with Just-in-Time Processes and Documentation**

*by Dr. David F. Rico, Dr. Hasan H. Sayani, and Dr. Saya Sone*

#### **Get to Know ...**

##### **Our new President: George Anderson**



Mr. Anderson has more than 40 years experience as a practicing Systems, Aeronautical and Mechanical engineer. He has worked in the Aviation, Automotive and Defense Contracting Business areas and is currently employed by Camber/I2s, in Columbia, MD as a senior systems engineer working in standards and strategic planning. Prior to joining Camber, he worked

### March 2010

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This is the monthly newsletter for INCOSE Chesapeake, a local chapter of INCOSE International. We are a not-for-profit organization dedicated to providing a forum for professionals practicing the art and science of Systems Engineering in the Northern & Central Maryland & Southern Pennsylvania area.

for Titan, Inc. as a Systems Architect, for TASC, as a Process Engineer, and, for the National Transportation Safety Board (NTSB), as a member of the Major Aircraft Accident Investigation (Go) Team. He earned his BS degree at the US Air Force Academy in 1964 and a MSAE from the Air Force Institute of Technology (AFIT) School of Engineering in 1973. He has recently been recognized by recent company and DoD citations for his work with architecture development, process improvement, and contributions to improving network interoperability.

Learn even more about the other Board Members in the [About section of our new improved Website.](#)

### Did You Miss Last Month?



### Putting MANAGEMENT Into Your Requirements Management

*Peter Baxter -- President; Distributive Management*

A well done presentation on the practical guidance on why and how to measure, and then manage, requirements. Mr. Baxter even provided some recommended Requirements Management visuals. If you missed it, not to worry -- you can download his presentation >>[HERE](#)<<

Mr. Baxter also provided several Requirements Management white papers to supplement his talk. All of those can be found and downloaded at the our [INCOSE Chesapeake Chapter Website.](#)

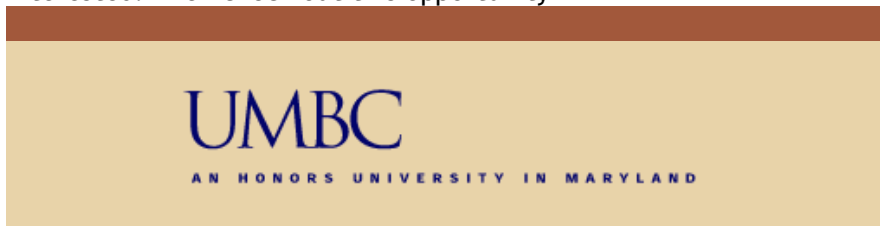
Visit our [Library section of our new improved Website](#) to also find other copies of presentation materials from previous meetings or other gatherings of interest. Poke around and see if anything looks interesting.

### SE Education Opportunity

UMBC has Systems Engineering graduate programs designed for working engineers, taught by the region's top systems engineers from leading defense contractors and overseen by a board of faculty and industry leaders. Programs include:

- Master's Degree in Systems Engineering
- Graduate Certificate in Systems Engineering

Interested? Then check out this opportunity --



### Mark your Calendars:

**Date:** 21 Apr 2010

**Presentation:** *Focus of DoD's AT&L Systems Engineering Office in the Area of SE*

**Standards and Guides**

**Speaker:** Mr. Donald J. Gantzer, SE Support Office (SESO-SAIC)

[>>download Apr flyer HERE<<](#)

**Date:** 19 May 2010

**Presentation:** *Risk Profile for NASA's Crew Exploitation Vehicle (CEV, named ORION)*

**Speaker:** Dr. Paul Mahata

[>>download May flyer HERE<<](#)

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our Programs Director, [Mr. Donald York](#), if you would like the opportunity to speak or can recommend someone.

**Did You Know?** The International Council on Systems Engineering has established a multi-level Professional Certification Program to provide a formal

## UMBC's Engineering Management and Systems Engineering Information Session

**REGISTER TODAY!**

**Wednesday, April 14, 2010  
6 - 8 p.m.  
UMBC Tech Incubator**

**Come to our information session and walk away with:**

- An understanding of the practical applications of our programs
- Tips for applying and navigating the application process
- One-on-one time with our faculty, staff and students

**Don't miss this opportunity!**

method for recognizing the knowledge and experience of systems engineers, regardless of where they may be in their career.



[Read more details at the INCOSE Website.](#)

### Feature Article

## King Tutankhamun's Dagger

By George Anderson



One of Tutankhamen's daggers with hilt and sheath of gold - this blade is made from meteoritic iron

Everybody likes a good story - one that has mystery, and a surprise ending.

Systems engineers and

systems engineering (SE) practices can play a significant role in some of these stories by gathering information in one area and applying it to another. More generally stated, SE can establish communication between sciences or disciplines and create new knowledge from the collaborative effort. The science of forensics and its success stories may best illustrate the power of this SE approach when solutions are found to problems that are illstructured, lacking in information, or obscured by prior erroneous conclusions.

Everyone has read, or seen descriptions of the artifacts found in King Tutankhamun's tomb discovered in 1922 in Egypt's Valley of the Kings. The SE interest, here, focuses on one artifact, a dagger that was described by various observers as having a blade made from iron. It was one of two daggers found on the king's mummy with the other being described as having a blade made from gold. Scholars have pointed out that the iron dagger is not the only iron-like material found in Egyptian burials. At least one of the pyramids contains alleged iron plates and cleats installed as architectural features. The location and configuration of these artifacts suggests a striking similarity to modern construction methods. What conclusions could the Archeologist draw from the presence of "iron" in a 1300 BC tomb? What conclusions could a metallurgist draw?

# UMBC

**Training Centers**  
is offering  
**a CSEP Prep Course**

**Dates:** Four  
Successive Saturdays  
(9:00 am - 4:00 pm)  
**March 6 - 27, 2010**

**Location:** UMBC  
Training Centers @  
1450 S. Rolling Road,  
Baltimore, MD 21227

[>>Register Details  
Here<<](#)

Also check out local  
CSEP Exam Preparation  
and other Systems  
Engineering training  
opportunities at our  
[Education page](#)

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colleagues are  
reading in Systems  
Engineering**

While there may have been other speculation in the 1920's, it appears that the Archeologists were content to explain the presence of iron in the tomb as a product of the Hittite civilization. Based on excavations and writings, the Hittites were forging primitive iron objects during this time frame. Perhaps this explanation delayed the moment when metallurgists made a scientific analysis of the metal content of the blade. We don't know precisely when the analysis was made, but a possible impetus for seeking this analysis was the growing availability of the literature of astronomy that deals with meteors and their remnants.

History is replete with eyewitness accounts of meteors falling from the sky and impacting the earth. Further, there is a continuous record of metal being recovered from the meteoric remnants and frequently being described or labeled as meteoric iron.

Modern and advanced metallurgical analysis of the metal found in some meteor sites, has established that the metal recovered is not iron but a complex alloy containing varying amounts of iron, nickel, chromium, and cobalt. Furthermore, the nickel content is very high (5-25%) making this alloy totally distinguishable from those currently made by modern man.



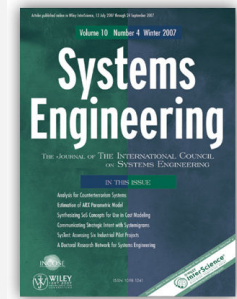
A little technical discovery like this can unleash a great deal of reinvestigation and pose questions about the little descriptive signs attached to "iron" artifacts in the world's museums. The results can be found among many sites on the Internet. Specimens of meteoritic iron artifacts are now more widely identified and have origins that include ancient burial mounds of both the old and new worlds.

And so it is that King Tutankhamun's iron dagger is now labeled as made of meteoric iron.

One last thought before concluding. Was this meteoric metal alloy, which is not of terrestrial origin, a superior material for a knife blade as compared to Hittite iron? How might it compare with modern nickel-iron or nickel-steel alloys?

References and further reading:

- <http://www.instructables.com/id/Etching-and-Working-with-Meteorite-Iron/>
- <http://en.wikipedia.org/wiki/Meteorite>
- [http://en.wikipedia.org/wiki/Iron\\_meteorite](http://en.wikipedia.org/wiki/Iron_meteorite)
- <http://warehamforgeblog.blogspot.com/2009/01/known-meteor-iron-blade->



Read the following top downloaded 2009 articles free for a limited time:  
[The Many Views of a Process: Toward a Process Architecture Framework for Product Development Processes](#)

[An Obsolescence Management Framework for System Baseline Evolution - Perspectives Through the System Life Cycle](#)

[Systems Engineering Leading Indicators for Assessing Program and Technical Effectiveness](#)

As a member of INCOSE you have online Access to the current and past issues of The Journal of Systems Engineering via the Wiley InterScience site. Search the archives and download papers of interest. Registration on the Wiley site is required. Instructions for accessing the SE Journal can be found in [INCOSE Connect](#)

**This Newsletter is to serve our members and is open to all for contributions. Do you have an interesting**



[from-1600.html](#)

- <http://www.meteoris.de/basics/cult1.html>
- <http://www.eternaegypt.org/>

idea for an article? A review of a new book related to engineering? [Let us know](#). We'd love to hear about it. It may wind up in a future issue of our Newsletter.



Keep up with the latest news and events. Find out about our new Board of Directors. Explore our extensive library of previous lectures from our Monthly Dinner Meetings. Learn of the Benefits of Joining INCOSE. Check out Systems Engineering education in the local area. All this and more awaits you at our [INCOSE Chesapeake Chapter Website](#).

For any comments or suggestions about this newsletter please e-mail our [President, George Anderson](#) or our [Communications Officer, Paul Martin](#). We value your feedback.

**Board of Director Officers, 2010**

- President: Mr. George Anderson
- Past President: Mr. Glenn Townson
- President Elect: Mr. John Lewis
- Treasurer: Mr. Dave Griffith
- Secretary: Mr. Bob Berkovits

**Directors at Large**

- Communications: Mr. Paul Martin
- Programs: Mr. Donald York
- Membership Committee: Ms. Bhanumati Sunkara

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