



INCOSE UK 1-Day Event
Systems Engineering Problem Solving Principles, Tools and Techniques
Thursday 24th January 2008, 9:30 – 17:00
BAWA social club North Bristol

Much of the application of Systems Engineering is tied up with lifecycle and process procedures and standards. While these are important, they are all built upon a fundamental understanding of system issues and a “systems approach” to problem solving. Embedded within the system approach are a number of methods and techniques for describing and exploring system problems and solutions.

This event is aimed at new or inexperienced Systems Engineers, who want to find out more about the Systems Engineering approach to problems; and more experienced systems engineers who feel a need to add something new to their toolbox but aren't sure which of the many methods and techniques would be most suitable.

This event will explore a complex real world problem using a systems approach, and provide visibility of some of the specific analysis techniques available. Delegates will get exposure to three different Systems Engineering problem solving approaches, using the following problem statement.

The European Joint Aerospace Authority (EJAA) require the formulation of a 100 year strategic vision of the commercial possibilities for space travel, based around a European space travel hub, taking into account the need to integrate any proposals with existing and emerging air travel routes, infrastructure and legislation.

The EJAA strategic vision is to consider an incremental approach starting with smaller scale space tourism projects and moving towards mass public space transportation worldwide and other potential applications.

Proposals are sought for projects with both a sound short term benefit, and longer term contributions to the strategic goal. Your proposal should include identification of key stakeholders, potential vehicles, necessary processes, a candidate architecture concept to include infrastructure elements, and a set of high level requirements.

During the day each individual will:

- use one approach and set of techniques in some detail to address a specified problem, led by an expert in the approach
- compare this with a second approach
- get an overview introduction and summary of a third approach.

The day is intended to give:

- an appreciation of how Systems Engineering approaches apply to large complex problems
- a sample taste of particular system analysis techniques
- an overview of how to evaluate and select between (the multitude) of Systems Engineering approaches and techniques.

Price for the 1-day is £150 for INCOSE members

Registration available via <http://www.incoseonline.org.uk/>

A detailed programme for the day, and more price information overleaf

9:00-9:30 Registration and Coffee

9.30-10.45 Plenary Introductions

Introduction to the day, overview of the system approach and three particular versions of it being considered at the event

9.30-10.00 Introduction to session, and overview of Systems Engineering

10.00-10.45 Introduction to approaches

10.45-11.00 Coffee and split into groups

11.00-15.00 Group Workshops

Three parallel group sessions each exploring the common problem statement using one of the techniques

11:00-11:30 Detailed briefing on specific technique

11.30-12.15 Definition of the problem and initial exploration with chosen technique

12.15-15.00 Problem Analysis with expert support

Volunteers playing the role of Stakeholders will be available from 12.15 to clarify issues and questions raised on the problem statement.

A working buffet lunch will available from 12.15. Tea and Coffee will also be available throughout the afternoon.

15:00-17:00 Wider Discussion

An opportunity to find out how the other groups tackled the problem and to compare the approaches on offer.

15.00-16.00 Comparison of the problem solving approaches. Three new groups will review and compare the strengths, weaknesses and issues of pairs of the approaches used above.

16.00-16.30 Feedback from each review group

16:30-17:00 General discussion of methods

17:00 Close

Prices:

£150 for INCOSE members (£75 for student members)

£186 for non members (£95 for students), which includes 6 months INCOSE membership

Note, attendance at this event will be limited to a maximum of 60 delegates

All prices are inclusive of VAT, and include refreshments and lunch. The BAWA social club is located 2 miles from the junction of the M4 & M5, see http://www.bawa.biz/htm/php/driving_directions.php. Please register at <http://www.incoseonline.org.uk/> or contact Richard.Adcock@INCOSE.ORG with any other queries.