advancing systems engineering

preVIEW

International Council On Systems Engineering UK Chapter Newsletter

December 2004

Autumn assembly 2004 and 10th anniversary dinner

Welcome to this festive issue of Preview. The main feature of this edition is the Autumn Assembly held on the 8th & 9th November at the Marriot hotel in Swindon and the 10th Anniversary dinner held at the Steam museum. For those of you unfortunate not to be able to make either events there are some special features on pages 4 to 6.

Doug Cowper
Editor, Preview

The 'Railway Men'

Dinner Next To Carmarthen Castle

Past and Future Presidents

Our Overseas Guests Hosted by John

In brief

EUSEC 2006 in the UK

INCOSE UK have been invited to host the European System Engineering Conference in (EUSEC) 2006. The INCOSE UK Chapter board have accepted this challenge to hold this high profile event in the UK (the last major event staged by the UK was the International Symposium in 1999 held in Brighton). Preliminary planning is already underway with a likely location being Edinburgh. There will be plenty to do and the UK board will be looking for volunteers to help. So if you feel willing and able to contribute please contact any of the board members (see back page for contact details).

Doug Cowper
University College London

SE handbook version 3 needs your help

The Systems Engineering Handbook version 3 effort is bogging down. The team are very short of authors and task leads. They are at least two months behind schedule due to the ISO problems getting 15288 (now solved) and lack of authors. They specifically need folks that can help with the following areas:

... Section 4 - Technical Processes

... Section 6.1-6.3 - Technical and Management Processes and Support Activities

... Section 8 - Tailoring

If you can help, please contact Jim Chism at james@jameschism.com

Jerry Fisher

Please email your news and views to d.cowper@ucl.ac.uk
www.incose.org.uk

In profile - Simon Hutton, communications & membership chair (CMC) - INCOSE UK

Simon Hutton is a Principal Consultant with Structured Software Systems Limited, specialising in the application of systems engineering processes and requirements engineering techniques. Simon joined 3SL in 2003 after 20 years in the Royal Navy spent mainly at sea as a submarine warfare specialist. Submarines included HMS Trenchant, HMS Sovereign and HMS Victorious, the latter as the Operations Officer during Contractor Sea Trials, post build acceptance and work up, a trident missile firing on the Canaveral Range and the first strategic patrol. Simon worked within the MOD operational requirements community from 1997, initially with DOR(Sea), the predecessor to the Capability Customer, and then within the Defence Procurement Agency as a 'Smart' Requirements Manager. Having played most stakeholder roles during all stages of the life cycle, Simon left the RN convinced he was a systems engineer and joined INCOSE to prove it! In common with several INCOSE members he has a degree in Physics, and gained an MSc in Information Systems Design at the Royal Military College of Science. He is also a certified APM Project Manager and a member of the BCS. When not keeping 3SL customers happy, Simon lives in the Lake District with his wife and children. higher percentage of the younger fraternity are taking up the discipline. A lot of work remains but the potential is there.

What are the key points of your strategy for future communications of the UK Chapter?
I took on the Communications and Membership Committee (CMC) role 6 months ago, and have spent this time trying to understand what I have let myself in for! INCOSE is unlike many professional organisations as it is not seen as a career necessity that leads to chartered status, for example. It is also run for the benefit of the members by the members, with the only professional support coming from the invaluable and eternally cheerful John Mead! We have a solid, pro-active core of around 150 members, and another 250 members who occasionally dip in to see what INCOSE can add to their professional lives. The CMC will be focusing on bringing benefit to all our current members, to encourage the occasional members to re-join every year and to participate. Wider participation is, I believe, the key to making INCOSE work. We have a considerable body of corporate knowledge, and the main thrust of the CMC efforts over the next couple of years will be encouraging members to share this knowledge and use the experiences we have to our mutual benefit. Once we have brought real benefit to the members and increased the size of the pro-active core, the aim will be to focus on building the membership.

What measures are you going to use to assess the current quality of the UK Chapter's communications with the membership and to demonstrate future improvements?
In addition to the tangible benefits of being an International INCOSE member, the UK Chapter has several products that suggest we have extremely firm foundations. Our web-site, run by Stuart Cornes, and this newsletter produced by Doug Cowper provide the main communication channels, and show what enthusiastic, pro-active INCOSE members can really do! But it is noticeable that whilst the quality of contributions is always excellent, the quantity often varies – the October edition of Preview only had 3 pages! In line with the strategy of unlocking knowledge, I will be looking at increased audience participation as one measure of success. I will also be starting an annual survey to understand better what the membership wants. I am hoping the responses to this survey will, over time, give an indication of how well we are doing, and I intend running the first survey in time to report the results at the Spring Conference.

What practical barriers do you think there are in achieving your strategy?
Being run by the membership as a non-profit organisation with little professional support, we rely on people taking the time to do things. I am fortunate to have an understanding wife and an employer who allows me to use company time to benefit INCOSE! The biggest barrier to overcome will be getting people to give up some of their time to contribute. The second barrier that gives me some concern is the need to retain personal contact without becoming a virtual organisation that exists only as a web-based chat room and a electronic newsletter. Like many who attended, I thoroughly enjoyed the recent Autumn Assembly and Dinner, and hope these events continue to attract members who can meet, talk, learn and exchange ideas over a drink.

How do the local groups fit into the strategy?
We have local groups in Stevenage, London and Bristol, and the possibility of groups starting in Scotland, the Midlands and Hampshire/Dorset. These groups are extremely important if we are to give a wider audience the opportunity to meet regularly and discuss systems engineering under the INCOSE banner. The local groups also encourage networking and the exchange of ideas with other professions and professional bodies, which supports our broader aim to be the natural home for systems engineering best practice in the UK. I am hoping that the CMC will be able to provide a focus for embryonic groups to help them grow, as well as some co-ordination between the mature groups to ensure best practice is shared.

What do you think your greatest challenge will be in the role of CMC chair?
Apathy – I need say no more!

In profile next time,

President's corner

Due to personal circumstances Preview is unfortunately unable to provide this edition of the President's Corner.

Doug Cowper
Editor

If you have a question you would like answered by our panel of experts or a point of view you would like to share with Preview readers then please send to:

d. cowper@ucl.ac.uk

or write to:
Preview
c/o UCL Business
2-16 Torrington Place
London WC1E 7HN

Systems engineering core competency working group

The UKAB held a workshop on the 4th February this year to formalise its requirements for a set of Core Competencies for Systems Engineering and how these might be achieved (see the March edition of Preview). The conclusion drawn from this workshop was set up a working group to define a set of Core Competencies for Systems Engineering that would adopt the following approach:

1. An initial list of SE Core Competencies should be produced using lists that already have been produced by the UKAB organisations. This list to include identification of whether the competency is Core or on the Boundary of SE.
2. A review should be conducted to identify SE Core Competencies from the following best practice: ISO15288, CMMI, EIA731, INCOSE SEBok & Handbook Version 2, and the NASA Handbook.
3. A workshop to debate the initial list of SE Core Competencies from the UKAB members and those identified from best practice. The workshop will also review the applicability of the SE Core Competencies for other sectors, for example Rail and Health. If the workshop is unable to review the applicability to other sectors representatives from these industries will need to be sought to assist the process.
4. The output of Workshop is an Initial draft of SE Core Competencies, Initial Definitions & a Revision of this Plan with the allocation of tasks, (Health Check - Rail, Health, Automotive - All need to consider who for the health check).
5. Definition of SE Core Competencies and Measures. This activity will be split among the UKAB representatives and will involve regular review meetings.
6. Workshop to review the relationship between Systems Engineering and the Systems Engineer and the team.
7. A draft report to be produced giving the list of SE Core Competencies, their definitions and measures and their relationship to a Systems Engineer or a project team.
8. The draft report will be circulated to seek views and opinions from the SE community.
9. The comments received back from the SE Community will be incorporated into the report.
10. The SE Core Competency report to be presented at the INCOSE Spring Conference 2005.
11. Seek national acceptance.

After 6 one-day workshops and a large amount of individual effort by the working group team, the working group is now in a position to circulate a draft document for discussion. This draft document was presented and launched at the Autumn Assembly. The document is available to INCOSE members through the INCOSE website: www.incose.org.uk. Please take time to review the document and forward any comments to: d.cowper@ucl.ac.uk by the 8th January 2005.

The working group will collate all the comments from the community by the end of January 2005 and plan to hold a workshop in January 2005 to review the comments and update the document. The formal issue of the document is planned for the UK Spring Conference 2005 and the working group have submitted a paper for the International Symposium in Rochester.

The next phase of the project will be to identify measures for the competencies and to review how the competencies effect team structures.

Acknowledgements

I would like to thank my working group colleagues for all their hard work and our employers who have sponsored our involvement in this activity. My co-conspirators are:
Richard Allen-Shalless (Thales)
Keith Barnwell (Ministry of Defence)
Samantha Brown (BAE SYSTEMS)
Ayman El Fatatry (BAE SYSTEMS)
John Hooper (Loughborough University)
Sandra Hudson (General Dynamics UK)
Les Oliver (EADS Astrium)
Alan Smith (University College London)
Jocelyn Stoves (Thales)

Doug Cowper
University College London

Working Group Session at the Autumn Assembly

Events calendar

2005

January

28th January - 3rd February 2005

INCOSE International Workshop 2005 Tamper, Florida

March

23rd - 25th March 2005

Conference on Systems Engineering Research, Stevens Institute, USA

May

9th - 11th May 2005

INCOSE UK Spring Conference
Come and enjoy a 3 day mix of tutorials, networking, refereed papers, panels, working groups, conference dinner, and more.

July

10th - 15th July 2005

INCOSE 2005, 15th International Symposium, Rochester, USA

If you have an event you would like published in Preview then please contact:
d.cowper@ucl.ac.uk

Autumn assembly — in colour

How was it for you?

By the number of congratulations for a well run event and for the happy smiling faces during most of it I can only conclude that the Autumn Assembly 2004 was thoroughly enjoyed by most of you.

Region III Meeting on Sunday

It was a pleasure to meet again a number of the European members including our regular autumn visitors Terry and Cecilia from Norway. Also present were Paul Schreinemakers and his lady from The Netherlands. Paul is the Netherlands Chapter President and was here for the Region 3 meeting on Sunday afternoon, but also stayed with us for Monday and the tenth anniversary dinner. Also present on Sunday was Dieter Scheithauer from the German chapter. Ricky Curran and Juliana Early joined us from Belfast for the first time.

We had a total of 96 over the two days proper of our autumn event and about 85 on each day. There were 71 of us at the Anniversary dinner including all of our previous presidents but excluding the current one Philip John who was confined by his doctor to keep his leg in the air and not to put any weight on it. Our immediate past president Paul Davies was to be seen hobbling around on his crutches.

As I hardly saw any presentations –there are always other things to

Former President Bill Bardo

do – I will only pass comment briefly based upon your comments on the questionnaire improvement forms. We only had 40 back out of the 96 but I am going to have to assume that these were representative.
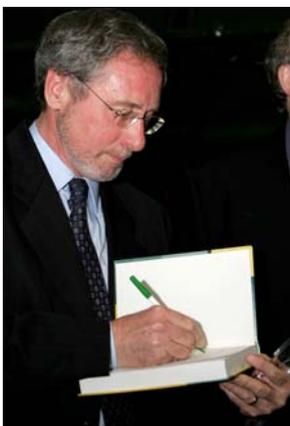
Thank you for your comments on, and help with, the marketing. It appears that all of our methods of spreading the word bring in someone or another. I particularly like the one who said the marketing was not good as he only found out about it by a miss-directed email. Just like a few years ago when one replied that the marketing was rubbish as he would not have known about it if he had not found this flyer on his desk. I prefer to think that this shows how good members are at passing the information to the right place, so well done keep it up. We had almost thirty new members this time. Every one loved the Marriott except perhaps those who left it late so could not get in and those who found the accommodation expensive. It was more expensive than usual but we had better facilities and service and a better conference room rate. I expected most to get corporate rates –if your company has an arrangement.

Session 1 (including the AGM) was dull to some, but they are things that we have to do. Others found session 1 useful, informative and even very interesting. I cannot think that it was it necessary to do it again, but in future just present the results or products that eventually emerge and hopefully it will give a bit of a boost to local and working groups. Samantha Brown's organisation of the technical structure was the highlight for most.
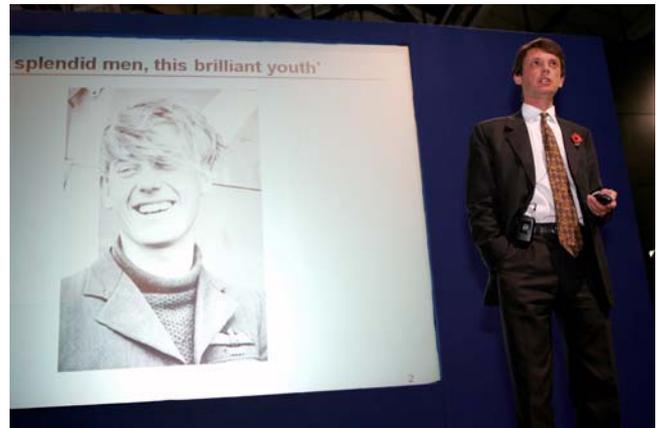
Risk management included something to please everyone I think although some found they did not have enough time and some thought it too elementary but the overall judgement was very positive. I have pages of comments on it.

Then there was the dinner. All a

bit nerve racking for me with the speaker Stephen Bungay wanting to set up his lap-top and play with the projector (good job we did as it did not work) and the band playing up and coaches arriving and having to shuttle back between one and the other in Swindon busy period. I did find time to order a beer but not time to drink it. Once we were all at STEAM of course it seemed to go very well. Comments provided include " Absolutely fabulous –great food, speaker, band -and also - no beer!" Cannot have everything can we? We had a professional photographer at this event so you should see some pictures on the website shortly and hopefully Doug managed to fit a few into this newsletter.

Session 3 How can Systems Engineering add value to your business?

You all apparently enjoyed this one "Good coverage of core problems – relevant to the real world – super audience participation – excellent content – very stimulating – it would be great to see more – Exactly what I came to hear about" etc. Any negative comments were generally in the

After Dinner Speaker Stephen Bungay

"Mixed but good bits useful – too many slides – more time needed – very slow" etc.

Session 4 Frameworks and modelling

Excellent appeared a number of times in the responses plus " the most useful session to me – Good session too short - Well presented – Lots of good material – Again fantastic talk" and – "Too quick, too detailed, too much information - Clear if not a little basic – Too Artisan Marketing –Interesting but not particularly relevant to me -" . It is difficult to gain an overall impression when we have the two following comments on the same presentation "Nothing really new – same as last year" & "Finally some-

thing new and forward looking".
 Session 5

The comment "This sort of case is very important & we need more of these!" probably sums it up with the "Too much DOORS" probably the only downside.

Thank you all very much also for your comments on the event as a whole. There were encouraging things like "Well worth attending- good business value – good networking opportunities quality papers/ presentations – well organised and managed". Your suggestions for improvement " Very varied quality could be improved by asking for draft content of presentations not only abstracts – agreed and we do at the Spring event, at the AA we try to give every one (almost) a chance to air their views. "There was no introduction to INCOSE for newcomers" – agreed and we do it sometimes but we get new members every time so probably should do the intro every time. Maybe the new members CD (coming soon) will reduce the need for this? The most repeated criticism and area for improvement was – and I will say this only once was "TIMEKEEPING" and we will do better!

The tenth anniversary dinner – "Excellent venue, excellent dinner, excellent after dinner speaker, generous supply of wine, great jazz band" were all repeated many times. We agree there was no beer yet there was only one such comment but there were planned vegetarian options because some had them but if you did not ask before sitting at the table you would have been too late!

To answer the title question I think we can conclude that to you it was very good but we will still listen to your suggestions and aim to make the next one even better!

John Mead
UK Administrator

Please email your news and views to d.cowper@ucl.ac.uk
www.incose.org.uk

AA04 session 1— working groups and local groups

'Helping You to help yourself'!

The session was aimed at informing delegates of the current activities of Working groups and Local groups. WG and LG activities will be regularly reported on in future AA's. The first speaker was Samantha Brown (BAE Systems), the newly appointed INCOSE Technical Board Chair, who shared her new technical vision and strategy (See presentation under AA04). She was followed by Dipesh Patel, the SEPDC Chair, who appealed to delegates to encourage more active participation to form Working groups and grow the technical base. He informed delegates that the SEPDC technical strategy would align closely with the new corporate technical vision. These were exciting times giving members the opportunity to influence the future, but only through their active participation.

Dipesh was followed by progress reports from Chairs from 3 active working groups : Doug Cowper, Chair of the Core Competencies Working Group, Colin Ingamells, Chair of the Region 3 Requirements Management Working Group and Duncan Kemp, Chair of the Smart Acquisition Working group. For further information see the website for contact details.

The second part of the session consisted of reports from Local group chairs. Les Oliver, Chair of Stevenage Local group, reported on their years activities, with some interesting statistics. The most disappointing observation was that there was more interest and participation from non-members than members. The London group chair, Derek Price, also reported on a low turn out. The recently formed Bristol local group, Chaired by Gordon Woods, had the most encouraging report, with a well attended first event. But the challenge is set for ensuring that this continues.

Simon Hutton, the newly appointed Chair of the Communications and Membership Committee (CMC) assured delegates that significant changes were afoot to keep the membership better informed on Working group and Local group events and activities.

If you would like to take part in any of the above, please don't hesitate to contact Dipesh or Simon, or even the Chairs directly. Contact details are at the back of the newsletter and on the website.

Please see the website, under AA04, for details of some of the presentations.

Dipesh Patel
SEPDC Chair

INCOSE UK annual general meeting — 8th November 04

Report on the INCOSE UK Annual General Meeting held at the Marriott Hotel, Swindon on Monday 8th November.

INCOSE UK AGM

The annual General meeting was held when members were gathered together for the Autumn Assembly. Unfortunately the President, Philip John, was incapacitated and restrained from attendance under doctor's orders due to a leg injury. Under these circumstances the AGM was conducted by President Elect Hillary Sillitto.

The first item on the agenda was the President's report and Hillary presented this for Philip giving his status report for the current year (it is proposed to provide detail on this either in the next newsletter or by putting Philip's presentation onto the web site).

The Secretary Allen Fairbairn was unable to attend, and no Secretary's report was available.

Peter Lister presented the Treasurer's report based upon un-audited figures. Peter answered several questions from the members present concerned primarily with ensuring the maintenance of an adequate reserve. The small amount that the Chapter retains from the membership fee, enforcing the raising of funds at events was also discussed. The recently announced membership fee increase by Central Office was raised and explained, but as the Board have not met since this recent announcement, no decision was available as to the impact on the UK subscription levels. However, the potential options were discussed.

Anyone wishing to receive a copy of the accounts please contact Peter Lister on peter.lister@siemens.com.

A brief SEPDC report was given by Dipesh Patel, since everyone present had heard details of current local group and working group activities during the morning session of the Autumn Assembly.

John Mead then conducted the election of officers for the forthcoming year. He advised that no further nominations had been received from volunteers as a result of the AGM Calling Notice and therefore called for confirmation of the list as proposed by the President. This was done by a show of hands and details of the Board as confirmed by the members present are provided below.

Hillary concluded the meeting by presenting the President's " Key Issues for 2004/2005 which will also be shown together with his status report for the current year.

INCOSE UK Board members as confirmed at the AGM on 8th November.

President	Prof. Philip John
President –Elect	Hillary Sillitto
Immediate Past President	Paul Davies
Secretary	Allen Fairbairn
Treasurer	Peter Lister.

The following Board appointees agreed to continue for a further year.

Chairman of the CMC	Simon Hutton
Chairman of the SEPDC	Dipesh Patel
Liaison with external professional and standards bodies	Stuart Arnold.
Liaison with education and training bodies	Doug Cowper.

John Mead
UK Administrator

Three New Members Enjoying the 10th Anniversary Dinner

AA04 session 3 — back to basics — can we define a Bart Simpson's guide to SE?

Before lunch on the first day of the UK Chapter's Autumn Assembly, we posed the question: *How do we sell systems engineering convincingly to:*

... your customer?

... your CEO?

... the technical director of a 10-man SME?

... Your 17-year-old son or daughter?

... A 2nd year undergraduate?

... Tony Blair?

And having sold, how do you make sure you deliver on the expectation?

"Actors" role-played each character to give a 2-3 minute précis of things they have heard about systems engineering that interested them, and their objections to using it. Thanks to all of them: to avoid potential embarrassment, "Chatham House Rules" apply – all quotes are unattributed.

The Customer:

"I want **reassurance** that I will get what I asked for and am paying for.

If the supplier has to change things or has to do trade-offs I won't feel hoodwinked but will be **included** in the process.

Traceability will allow me to understand how technical features relate to my needs and help me to decide when it is worth persisting to solve difficult technical problems."

The CEO:

"I have been offered all sorts of **silver bullets** over the past ten years - EFQM, 6 sigma, PRINCE 2, TQM, CMMI, - - and none has delivered the claimed benefits. I agree most of my projects are running late and I'd like to im-

prove that situation. But you're telling me that systems engineering will add delays up front.

So if you want me to take you seriously, you have to show me the **ROI** from introducing systems engineering - and **prove it!**"

The technical director of a 10-man SME:

"I want systems engineering to be sold as a simple exercise to **integrate** engineering activities to deliver **what's** wanted **when** it's wanted, and give me a broad perspective on the technical aspects of the business."

The Prime Minister

"Systems engineering would be interesting if it can resolve conflicts to **deliver vital public services** - health service - transportation - schools - and deal with the huge **security** issues we now face.

This is important to me because I want to make sure I am remembered for the **enduring success** of the achievements of my three terms in office.

But there isn't much time left and I need results **soon**."

The 17-year-old:

"Dad (or mum); Can you explain to me what you do at work in 2 minutes in words I can understand?

Why are you often so stressed when you get home?

Can you make me a mobile that looks cool and works properly?

Will I get paid more as a systems engineer than as an accountant? And by the way, can I have the car keys please?"

Second year undergraduate:

"INCOSE needs to know what it's selling.

I've only been involved in systems engineering for 2 months and

lots of people have described systems engineering to me but all the descriptions are different. A "unified theory of everything" would be a really good idea.

We need to show how systems engineering works with other disciplines and what other disciplines need to understand about systems engineering."

The recent graduates provided a really useful critique of the subject and their views.

What does a systems engineer do?

INCOSE needs to know and present the purpose of systems engineering - as with any project, we need to present a unified front. We need to understand and explain the interaction of SE with other disciplines. To sell SE to undergraduates, the SE community needs to know what they are selling, and know how to sell it and show benefits to different groups.

Show SE is part of all engineering disciplines

Make sure undergraduates on other engineering courses understand SE needs to be part of their skill base. Show them how what they are learning can be applied within SE. Show the undergrads what they can expect in the future. NOT ALL OF THEM WILL BE RIGHT FOR SE. Empower them with the information they will need to make that decision for themselves.

Unified theory - very difficult but necessary

Other disciplines are very well defined. By contrast, SE has many definitions (some complementary, some at different ends of spectrum). We need fewer but better defined diagrams, processes and lifecycles; we need to simplify language and terminology, and remove buzzwords

Relate ideas to known domains,

everyday events,

We need simple ideas, analogies, case studies: supermarket choice, mountaineering, - -. Sell through use of SE on real projects: show successes/failures of exciting projects with/without SE. Notable and exciting successes include the Battle of Britain; failures include many defence projects

Final thought

It's not just about recruiting new systems engineers - it's also making sure that other undergrads understand the role of SE at an early stage in their career

Consider re-branding Systems Engineering: "Structured problem solving" does it for school kids!

Key themes:

The Key Themes emerging were:

... SIMPLE

... UNIFIED THEORY

... STRUCTURED PROBLEM SOLVING

... REASSURANCE

... ROI

... MAKE A DIFFERENCE

Next steps

This "quick snapshot" article establishes a baseline that can be developed further. The East Midlands local group plans to take this work on under the banner of "systems engineering for SMEs". Desired INCOSE UK product(s) include a 2-side A4 sheet that sells SE effectively to "non-believers", and if possible validation and expansion of the stakeholder viewpoints and well-documented case studies of successes, failures and why.

Hillary Sillitto
President Elect
INCOSE UK

Centre for railway systems research — whole system performance theme workshop

In April 2003 the Engineering and Physical Sciences Research Council (EPSRC) funded a centre for railway systems research. The centre, called Rail Research UK (RRUK), is a collaboration of UK universities managed jointly by Birmingham and Southampton Universities with the aim of working alongside industry to create a world-class rail system for the UK.

One of the research themes of the RRUK is "Whole System Performance" (Theme B). The research focus for this theme includes:

... The influence of human behaviour on system performance

... Strategies for high-level traffic management

... Development of a system-level cost framework for the assessment of trade-offs between sub-systems.

On Tuesday 30th November, the RRUK Theme B held a workshop at the Institution of Mechanical Engineers to develop new proposals for research. The workshop began with a brief overview of the work already underway in RRUK Theme B and presentations from the following speakers giving their views of system performance and the

areas requiring research:

... Hedley Calderbank, Deputy Director Infrastructure Regulation, ORR

... Andrew McNaughton, Chief Engineer Network Rail

... Richard Gostling, Director Railway Industries Association and Chairman of AGRRI

The workshop then broke into groups to discuss particular issues in more detail before reconvening to present results and where possible draw conclusions. The output of the workshop will be collated and translated into a set of research aims and projects.

For more information about

RRUK please visit their website at www.railresearchuk.org.uk.

Doug Cowper
University College London

Around the regions

London

Despite the publicity of a potential "Systems Engineering Management Plan Workshop", the London Local Group has unfortunately been unable to arrange this event in November. It is hoped that the LLG will be able to stage this event early in the new year.
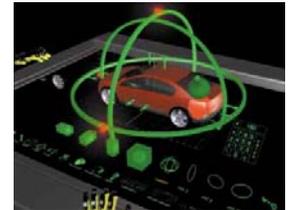
The LLG is also planning to hold an event on Terminal 5 of Heathrow Airport in the new year. Watch this space for further information about these events.

Doug Cowper
University College London

Scotland

INCOSE Scotland held a workshop on 'Visualisation and Innovation' at the Digital Design Studio (DDS), Glasgow School of Art on the 11th November. It is hoped to bring you a report on this event in the next issue.

Stevenage

"The Seven Samurai of Systems Engineering - Dealing with the Complexity of 7 Inter-related Systems"

The Stevenage Regional Group are pleased to host a presentation / talk by James N Martin, outlining his paper of the same title.

Monday 6th December 2004, EADS Astrium Ltd Site Canteen, Gunnels Wood Road, Stevenage, Herts, SG1 2AS 6pm for 6-30pm - Refreshments Provided

The new paradigm of the "Seven Samurai" is a holistic approach to systems engineering, which demonstrates that complex problems can be seen in terms of 7 inter-relating systems or samurai, and can be understood through their 15 underlying relationships. James will outline how much of system engineering practice focuses too much on just one of these samurai, and that the Seven Samurai framework can be used to develop true systems thinking, which is increasingly important for the ever more complex systems of the 21st Century.

James Martin is a systems architect and engineer at The Aerospace Corporation developing solutions for information systems and space systems. Mr. Martin led the working group responsible for developing ANSI/EIA 632, a US national standard that defines the processes for engineering a system. He previously worked for Raytheon Systems Company as a lead systems engineer and architect on airborne and satellite communications networks. He has also worked at AT&T Bell Labs on wireless telecommunications products and underwater fibre optic transmission products. His book, Systems Engineering Guidebook, was published by CRC Press. Mr. Martin is an INCOSE Fellow and leader of the Standards Technical Committee.

Members and non-members are welcome alike. Non-EADS employees who would like to attend are invited to e-mail steve.willis@astrium.eads.net with name, affiliation, and citizenship details (UK citizen or, if not, citizenship and passport number) in order to gain access to the Stevenage site.

Steve Willis
EADS Astrium

Bristol

The Bristol Local Group held its requirements engineering event on Wednesday 24th November 2004 at the University of the West of England (UWE). It is hoped to bring you a report on this event in the next issue.

How do you get involved with regional activity?

Are you looking to participate in local INCOSE activities?

Are you looking to set up a regional group?

For more information about regional activities or how to go about setting up a regional group, please contact:

John Mead on 01344 422325

INCOSE UK Spring Conference 2005
Call for Papers

After a highly enjoyable and successful 10th anniversary Autumn Assembly, INCOSE UK invites contributions to the 2005 Spring Conference.

'Interoperability'
How do you ensure the system you introduce fits into its environment?

The 3-day event consists of a tutorial day followed by a 2-day conference. The theme for the conference is 'interoperability'. This seems to be the latest challenge facing all industrial sectors. We are interested in papers that describe how Systems Engineering techniques are helping to deliver interoperable systems. What techniques are being applied to integrate different platforms and supply chains, identify and manage interfaces, and satisfy multiple stakeholder expectations?

However, papers can also cover ground-breaking techniques or verifiable theories benefiting the Systems Engineering community.

Please consider the following when drafting your paper and presentations:

1. What environments are the SE techniques being applied to?

2. What SE techniques are being applied, and how did this help achieve interoperability?

3. An explanation as to why these techniques have been selected?

4. What value did this add?

The following are a selection of topics that members have requested:-

Operational Concepts :

E.g. Using SE techniques (i.e. requirements, modeling) to define Operational Concepts and elicit operational and interface requirements.

Interface Management :

E.g. How can SE help to identify and manage interfaces between systems, contracts and supply chains?

Integrating SE and Project Management :

E.g. Demonstrating mutual benefit from Requirements Management, Architecture Frameworks, Validation & Verification, Re-use, Metrics, Risk management, and Business Processes.

Methods and Tools for Systems Engineering in Complex Environments :

E.g. Hard and Soft Systems Methods; System Dynamics; Simulation and Modelling.

People Issues in Systems Engineering:

E.g. Skills ; competences; accreditation ; education; training; Continuing Professional Development.

And of course, the most common and regular requests from delegates are for **Case Studies**.

Please share your experiences so that we can enrich our understanding, and advance our profession. The event is also an excellent opportunity to network and discuss issues with key people. As always, there will be a conference dinner followed by lively after dinner speaker.

Please send in a short (150 word) abstract, with a brief justification of your qualification to speak on the subject. The successful candidates will be asked to prepare a full paper for review, and to present at the conference.

Email abstracts to Dipesh Patel (pateldipesh9@aol.com) by Friday 4th February 2005 LATEST.

Any other matters on the event please contact John.Mead9@ntlworld.com

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