Check for new additions (highlighted)

The 2014 INCOSE International Symposium will be held June 30th – July 3rd in Henderson, NV at the Green Valley Ranch Resort (GVR). The INCOSE Transportation Working Group (TWG) has a full program of events planned, including an industry roundtable session, panel and paper presentations, a technical tour, and networking events. This document provides focused details on your TWG program.

**Anticipated Industry Attendees:**

We are anticipating the following industry attendees for our program:

- **Mohamad Azman Bin Othman**
  Senior Engineer
  Systems Assurance & Integration Division
  Singapore LTA, Singapore

- **Phil Guzzardi**
  Deputy Systems Engineering Officer
  Capital Program Management
  New York City Transit, USA

- **David Springstead**
  Senior Director of Engineering and Development
  MARTA, USA

- **Graham Fletcher**
  Lead Technologist (Modelling), Operations - Transport Systems Catapult
  London Underground, UK

- **Nita Rabadia**
  Lead Specification and Assurance Manager
  High Speed 2, UK
  (seconded from Network Rail)

- **Kuleep Gharatya**
  Engineering Director – Transport Systems Catapult/Head of Railway Systems
  London Underground, UK

**Anticipated Participating Organizations:**

- MARTA
- Transport for London
- ProRail
- Network Rail
- hs2
- New York City Transit
- Land Transport Authority

24th Annual INCOSE International Symposium
Keynote Speaker: Thinking differently about systems engineering change programs – dogs, bears and magic numbers

Scott McArthur is an organizational development consultant, leadership trainer, facilitator and coach with 10 years experience in industry followed by 10 years as a business consultant. In this speech, Scott will introduce key developments in the field of behavioral psychology and will explain how to improve industry wide effectiveness.

Industry Roundtable: Love at first sight? How can we attract more System Engineers into transportation?

This roundtable will explore the shared opportunities and challenges the transportation industry faces in attracting and developing Systems Engineering talent. Perspectives included are universities, a major source of systems engineers, and agencies and suppliers, major sources of demand for trained systems engineers.

Panels and Papers

This year we have an exciting range of panels and papers, covering a variety of topics relevant to SE in transportation. Refer to the tables on next page for details.

TWG Technical Tour: Las Vegas Monorail system - Monday

...presented by Atkins North America. Ride and see behind the scenes of the only privately owned public transportation system in the U.S. running for nearly 4 miles parallel to the famous Las Vegas strip. Bus will transport attendees at 9:30 am from GVR and return by lunchtime. Space is limited. RSVP required to Jennifer.Shaw@atkinsglobal.com by June 23rd.

Evening Dinner - Tuesday

The TWG is holding an evening dinner event at Elephant Bar Restaurant directly across the street from GVR (~2 min walk), from 6.30-9.30pm. Each year attendance is higher; we hope you can make it to share a meal and get to know your fellow Systems Engineers. Please RSVP to Jennifer Russell at RussellJe@PBWorld.com by June 23rd.

TWG Working Session - Wednesday

At this year’s working session we will be kicking-off a significant initiative to develop a strategic 5-year plan for the TWG – come and be part of the future!
Join the movement...

Look for the distinctive orange badge sticker shown below. When you see this it will identify the person as a fellow Transportation systems engineer – come and claim yours at the Welcome Reception on Sunday night, the Technical Tour on Monday, or the Transportation Roundtable on Tuesday.

Detailed TWG Program Highlights include:

Sunday, June 29th

<table>
<thead>
<tr>
<th>When, Where</th>
<th>What</th>
<th>Who (or Description)</th>
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<tbody>
<tr>
<td>8-12:10pm Del Mar I</td>
<td>Presentation</td>
<td>John Collins, Douglas Hamelin, Kirt Jamison (Idaho National Laboratory)</td>
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<tr>
<td>8-12:10pm Del Mar II</td>
<td>Presentation</td>
<td>Brian Berenbach (Georgia Tech Research Institute)</td>
</tr>
<tr>
<td>1:30-4:55pm Del Mar II</td>
<td>Presentation</td>
<td>Brian Berenbach (Georgia Tech Research Institute)</td>
</tr>
<tr>
<td>6-8pm GVR Lobby Lounge</td>
<td>TWG Welcome Reception</td>
<td>Join TWG members for evening drinks and networking at the Lobby Lounge (Green Valley Ranch, Henderson)</td>
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Monday, June 30th

<table>
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<tr>
<th>When, Where</th>
<th>What</th>
<th>Who (or Description)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30-11:55am Assemble: Look for Posting</td>
<td>TWG Technical Tour: Las Vegas Monorail RSVP required to <a href="mailto:Jennifer.Shaw@atkinsglobal.com">Jennifer.Shaw@atkinsglobal.com</a> by June 23rd.</td>
<td>Technical tour and facilitated transportation systems discussion at the Las Vegas Monorail system</td>
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## Tuesday, July 1st

<table>
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<tr>
<th>When, Where</th>
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<th>Who (or Description)</th>
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</table>
| 8:00-9:30am Check location during registration | **Keynote speaker**  
Thinking differently about systems engineering change programs – dogs, bears and magic numbers | Scott McArthur, Sculpture Consulting Ltd |
| 10:00-12:10pm Track 4 La Sirena IV | **Paper Session**  
Perspectives on SE  
On Motivating People to Implement Systems Engineering Getting from the Necessary to the Impossible  
What color is your nail polish? How to use Myers-Briggs personality characteristics to identify potential Systems Engineers in your organization  
Coming in Under Par: What Golf Can Teach Us About Systems Engineering | Session chair: Nita Rabadia (HS2)  
Oliver M. Hoehne (Parsons Brinckerhoff, Transit & Rail Systems)  
Jennifer L. Russell (Parsons Brinckerhoff)  
David D. Walden (Sysnovation, LLC) |
| 3:30-4:55 pm Track 2 La Sirena II | **Roundtable**  
Love at first sight? How can we attract and grow more transportation System Engineers? (Roundtable) | Moderator: Simon Smith (IBI Group)  
Panelists: London Underground, NYCT, Ansaldo, University of Bristol Systems Centre |
| 6:30-9:30pm Elephant Bar Restaurant 2270 Village Walk Dr | **TWG Evening Dinner**  
Please RSVP to Jennifer Russell at RussellJe@PBWorld.com by June 23rd | Join us for a wonderful evening meal and drinks in sunny Henderson, NV.  
http://www.elephantbar.com/ |
**Wednesday, July 2nd**

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<th>When, Where</th>
<th>What</th>
<th>Who (or Description)</th>
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<tbody>
<tr>
<td>10am-12:10pm Track 2 La Sirena II</td>
<td>Paper Session</td>
<td>Session chair: Don S. Gelosh (Worcester Polytechnic Institute)</td>
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<tr>
<td></td>
<td>Engineering Cognitive Competency Model</td>
<td>Moti Frank (HIT - Holon Institute of Technology)</td>
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<td></td>
<td>Developing the Next Generation of the INCOSE Systems Engineering Competency Framework</td>
<td>Don S. Gelosh (Worcester Polytechnic Institute); Mimi Heisey (Lockheed Martin Corporation); James F. Anthony Jr. (Senior Systems Engineer); John R. Snoderly (Defense Acquisition University); Ken Nidiffer (Software Engineering Institute)</td>
</tr>
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<td></td>
<td>Early Findings from Interviewing Systems Engineers who Support the U.S. Department of Defense</td>
<td>Nicole Hutchison, Devanandham Henry, Art Pyster, Ricardo Pineda (Stevens Institute of Technology)</td>
</tr>
<tr>
<td>1:30-2:55pm Track 2 La Sirena II</td>
<td>Paper</td>
<td>Duncan Kemp (Ministry of Defence); Jon Elphick (Atkins); Rhianne Evans (University of Birmingham); Doug Cowper (Cleave Systems Ltd)</td>
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<td></td>
<td>To V or not to V - that MUST be the Question Knowing When to Apply the Right Approach</td>
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<tr>
<td>3:30-4:55pm Salon: Look for Posting</td>
<td>TWG Working Session</td>
<td>Join your TWG colleagues for a working session to advance working group objectives</td>
</tr>
<tr>
<td>6:45pm Cocktails 7:30pm Dinner Opium Terrace/Grand Ballroom</td>
<td>INCOSE Banquet</td>
<td>Join your INCOSE colleagues for an evening of fun and festivity as the 2014 International Symposium winds down. Dress code is business casual.</td>
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**Thursday, July 3rd**

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<th>When, Where</th>
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<th>Who (or Description)</th>
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<tbody>
<tr>
<td>8:00-11:00am Assemble: Look for Posting</td>
<td>Plenary session:</td>
<td>Kuldeep Gharatya: Engineering Director – Transport Systems Catapult / Head of Railway Systems – London Underground</td>
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<td></td>
<td>Future vision of SE in transportation</td>
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