

**INCOSE**  
**2009**  
**SINGAPORE**



**20 – 23 July 2009**

19<sup>th</sup> Annual International Symposium of INCOSE &  
3<sup>rd</sup> Asia-Pacific Conference on Systems Engineering

*Hosted by the Region VI Chapters of Australia,  
Beijing, Japan, Korea, Singapore and Taiwan*

东 dōng - east

西 xī - west

# East Meets West

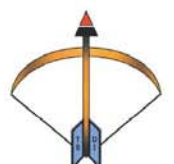
## The Human Dimension to Systems Engineering

The theme for INCOSE / APCOSE 2009, **East meets West: The Human Dimension to Systems Engineering**, highlights the dramatic expansion in the scope of contemporary systems engineering where the human cognitive dimension is becoming an integral part in the systems engineering processes. Future systems, where the machines are designed around the man, will benefit from systems engineering best practices and processes.

This premier event will present delegates from the East and the West an opportunity to share and deliberate on the latest systems engineering developments in education, research and applications. The exchange of ideas across different cultures can only spur greater dynamism and thinking in stretching the existing boundaries of systems engineering. Do not miss this great opportunity to network, develop and grow partnerships.

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Presented by



Temasek Defence Systems Institute

# Welcome

## Welcome from the INCOSE President



Since Marco Polo became the first Western explorer to pioneer a route to the Orient during his voyage to China in 1266, Westerners have been fascinated by the adventure of travels to the exotic Far East. Now, in 2009, there are compelling new reasons for East to meet West, and for the

two to truly learn about and understand each other. Many of the most exciting and urgent systems engineering challenges, and much of the new knowledge in our discipline, will come about as a result of a global INCOSE community working together and refining our young body of theory and practices so that we can successfully apply systems engineering to all of our complex development and operational needs.

It is fitting that our first symposium in Asia takes place in the unique, systems engineered city-state that is Singapore. I have been fascinated by the full life cycle planning that Singapore's leadership employs, and I am certain that all of you will

recognise the 'intellectual fingerprints' of systems thinkers throughout the environs of INCOSE 2009. With a history of remarkable rates of growth and extraordinarily efficient use of limited real estate, Singapore remains a cultural and commerce crossroads for the world and a gateway to Asia.

INCOSE is a dynamic professional community, a valuable networking hub and a home for life-long learners—the 2009 symposium is a unique opportunity to grow the size and vitality of your community while learning about new domains of practice, new cultures and, especially, the human dimensions of systems engineering. I invite you to join your fellow members and me in Singapore for a landmark symposium!

**Pat HALE** - *President, INCOSE*

## Welcome from the General Chair



Welcome to the 19th Annual INCOSE International Symposium (INCOSE 2009), which will be held in conjunction with the 3rd Asia-Pacific Conference on Systems Engineering (APCOSE 2009) from 20-23 July 2009. As the General Chair, I have the pleasure to welcome you to the choice

international forum of the systems engineering community. The theme of the symposium, East meets West: The Human Dimension to Systems Engineering, highlights the human cognitive dimension as an integral part of systems thinking and systems engineering processes across different cultures. Moreover, human capital and capability form the fundamental basis for large-scale systems engineering.

This is the first time that the INCOSE Symposium is held in Singapore and in Asia. Jointly hosted by INCOSE Region VI Chapters of Australia, Beijing, Japan, Korea, Singapore and Taiwan, the symposium reflects the growth of systems engineering as an emerging discipline in the region. This premier event will present researchers, students, educators, academics, professionals, public and private organisations from the East and the West the opportunity to share and deliberate on the latest systems engineering developments in education, research and applications. I believe this mutual exchange of ideas across different cultures can only spur greater dynamism and thinking in stretching the existing boundaries of systems engineering.

Finally, Singapore with its strategic location and world-class infrastructure, serves as the logical meeting place for industry, academia and government from East and West to network, develop and grow partnerships. I strongly encourage you to attend INCOSE 2009 which, I am certain, will be a fulfilling and rewarding experience.

I look forward to have you join us in Singapore for INCOSE 2009.

**YEO Tat Soon** - *INCOSE 2009 General Chair*



## Welcome from the INCOSE Technical Director



The 19th INCOSE International Symposium brings two key opportunities. For the first time ever, INCOSE is holding its flagship technical event in Asia, giving INCOSE an opportunity to better understand the needs and perspective of systems engineers and systems engineering organisations in this important part of the world. Second, holding the International Symposium in Asia will let systems engineering practitioners from that area experience the rich sources of information that INCOSE provides.

I warmly encourage everyone to explore all that INCOSE has to offer: participation in one or more of the 30 Working Groups, where the leading edge comes into being; authoring or listening to leading edge technical papers; participating in or interacting with panels of experts in their field and, as important a factor as any; the opportunity for a great deal of personal networking and fellowship. Nowhere else is there a more concentrated opportunity to learn and share with experts from the world around. Welcome to all! Enjoy and benefit from the opportunity!

**Dick KITTERMAN** - *Technical Director, INCOSE*

## Welcome from the Member Board Chair



Welcome to a network of over 7000 systems engineering professionals from around the world. I invite you to participate in the 19th INCOSE International Symposium and learn from your fellow systems engineers: exchange ideas, views, and experiences, renew old friendships and meet new people.

In addition to attending the Technical Programme, you have the opportunity to contribute directly to the state of the art and practice of systems engineering when you participate in INCOSE's leadership and working group meetings on 18-19 July.

And at the Chapter Leaders and Region Meetings you can share best practices in chapter leadership and chapter operations.

New members are encouraged to attend the New Member Orientation to learn more about INCOSE, its organisation, member benefits, and current projects.

Mark the 2009 International Symposium on your calendar and plan to spend an energising week with INCOSE in Singapore. I hope to see you there.

**Jonette STECKLEIN** - *INCOSE Member Board Chair*

## Welcome from the Technical Chair



Discussions, debates, and dialogue – these will be the key instruments to widen the scope and reach of systems engineering at INCOSE 2009. On behalf of the Host Committee, I would like to invite you to Singapore in July 2009 to be a part of the world's leading international systems engineering forum.

The Technical Programme, as the core of the symposium, will focus on the human dimension that underlies the field of systems engineering, in line with the theme of INCOSE 2009,

East meets West: The Human Dimension to Systems Engineering. The symposium will cover key as well as related topics on systems engineering through presentations, panel discussions, tutorials, exhibits as well as a technical tour showcasing systems engineering in action. Structured with your participation in mind, the programme will allow leaders and professionals from industry, academia, partners, students, and other professionals to walk away enriched.

The Technical Programme can only be successful if the international systems engineering community gathers to share and broaden perspectives within this field. As we know, sharing of knowledge within and across engineering disciplines is an essential feature of the field of systems engineering. Thus, I would like to invite you to come and share and to be inspired by the rich experiences from fellow participants. See you in Singapore!

**POH Kim Leng** - *Technical Chair*



## About INCOSE, INCOSE 2009 and APCOSE 2009

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organisation founded to develop and disseminate the interdisciplinary principles and practices that enable the realisation of successful systems. The International Symposium is the leading annual international conference on systems engineering.

INCOSE 2009, in conjunction with the 3rd Asia-Pacific Conference on Systems Engineering (APCOSE 2009), will be held in Singapore. This is the first time the INCOSE International Symposium will be held in Asia. APCOSE is an annual systems engineering event in the Asia-Pacific region.

Delegates will only need to make a single INCOSE 2009 registration to enjoy attendance privileges at all portions of INCOSE 2009 and APCOSE 2009. The two events will draw worldwide participants for four days of technical exchanges, presentations, panel discussions, tutorials and exhibitions.

To find information about INCOSE, visit [www.incose.org](http://www.incose.org).

To download this brochure, visit [www.incose.org/symp2009](http://www.incose.org/symp2009).

## INCOSE gratefully acknowledges the support of the Corporate Advisory Board

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# Schedule At A Glance

## Saturday 18 July 2009

0800 — 1000 Joint Leadership Meeting  
 1000 — 1700 Member Board Meeting  
 1030 — 1700 Technical Operations Leadership Meeting  
 1030 — 1800 Corporate Advisory Board Meeting  
 1830 — 1930 Chapter Presidents' Reception  
 2000—2230 CAB / BOD / Sponsor Dinner

1330 — 1700 INCOSE Half-Day Tutorial (H01)  
 1500 — 1530 Afternoon Break  
 1530 — 1700 INCOSE Session 2: Three Technical Tracks & One Panel Session  
 1530 — 1700 APCOSE Session 2: One Technical Paper Track  
 1800 — 2100 Lion Dance Welcome Reception / Exhibition Opens / Hawker-Fare Buffet

1030 — 1100 Morning Break  
 1030 — 1230 INCOSE Session 6: Three Technical Paper Tracks & One Panel Session  
 1030 — 1230 APCOSE Session 6: One Technical Paper Track  
 1030 — 1700 INCOSE Full-Day Tutorial (F02)  
 1030 — 1230 WG Session  
 1230 — 1330 Lunch  
 1330 — 1500 INCOSE Session 7: Three Technical Paper Tracks  
 1330 — 1500 APCOSE Session 7: One Technical Paper Track  
 1330 — 1700 INCOSE Academic Forum  
 1330 — 1700 INCOSE Half-Day Tutorial (H04)  
 1500 — 1530 Afternoon Break  
 1530 — 1700 INCOSE Session 8: Three Technical Paper Tracks  
 1530 — 1700 APCOSE Session 8: One Technical Paper Track  
 1800 — 2100 Banquet

## Sunday 19 July 2009

0700 — 1700 Symposium Registration  
 0700 — 1900 Cyber Café  
 0800 — 1100 Corporate Advisory Board Leadership Follow-up  
 0800 — 1200 Chapter Leaders Meeting Meeting  
 0830 — 1230 INCOSE Half-Day Tutorial (H01)  
 0900 — 1700 Fellow Business Meeting  
 1200 — 1800 Board of Directors Meeting  
 1300 — 1800 Events Committee Meeting  
 1330 — 1730 INCOSE Half-Day Tutorial

## Tuesday 21 July 2009

0700 — 1700 Symposium Registration  
 0700 — 1800 Speaker Ready Room  
 0700 — 1900 Cyber Café  
 0830 — 1000 Plenary: Keynote Address 2 and Keynote Address 3  
 1000 — 1030 Morning Break  
 1030 — 1230 INCOSE Session 3: Four Technical Paper Tracks & One Panel Session  
 1030 — 1900 Exhibits Open  
 1030 — 1230 APCOSE Session 3: One Technical Paper Track  
 1030 — 1700 INCOSE Full-Day Tutorial (F01)  
 1230 — 1330 Lunch  
 1330 — 1500 INCOSE Session 4: Three Technical Paper Tracks  
 1330 — 1500 APCOSE Session 4: One Technical Paper Track  
 1330 — 1700 INCOSE Half-Day Tutorial (H02)  
 1330 — 1700 INCOSE Half-Day Tutorial (H03)  
 1500 — 1530 Afternoon Break  
 1530 — 1700 INCOSE Session 5: Three Technical Paper Tracks  
 1530 — 1700 APCOSE Session 5: One Technical Paper Track  
 1800 — 1900 Social Hour

## Thursday 23 July 2009

0700 — 1700 Symposium Registration  
 0700 — 1800 Speaker Ready Room  
 0700 — 1900 Cyber Café  
 0830 — 1330 Exhibits Open  
 0830 — 1000 INCOSE Session 9: Two Technical Paper Tracks  
 0830 — 1000 APCOSE Session 9: One Technical Paper Track  
 0830 — 1230 INCOSE Half-Day Tutorial (H05)  
 1000 — 1030 Morning Break  
 1100 — 1230 INCOSE Session 10: Two Technical Paper Tracks  
 1100 — 1230 APCOSE Session 10: One Technical Paper Track  
 1230 — 1330 Lunch  
 1330 — 1530 Closing Plenary: Guest-of-Honour speech by Prof LUI Pao Chuen & Keynote Address 5  
 1530 — 1630 Closing Reception

## Monday 20 July 2009

0700 — 1700 Symposium Registration  
 0700 — 1800 Speaker Ready Room  
 0700 — 1900 Cyber Café  
 0730 — 0815 Speakers/Session Chairs' Breakfast  
 0845 — 1030 Opening Ceremony / Plenary: Guest-of-Honour speech by Deputy Prime Minister TEO Chee Hean & Keynote Address 1  
 1030 — 1100 Morning Break  
 1100 — 1230 Opening Plenary—Cont'd: Summit Forum  
 1230 — 1315 New Member Orientation  
 1230 — 1330 Lunch  
 1330 — 1500 INCOSE Session 1: Three Technical Tracks & One Panel Session  
 1330 — 1500 APCOSE Session 1: One Technical Paper Track  
 1330 — 1700 INCOSE Academic Forum

## Wednesday 22 July 2009

0700 — 1700 Symposium Registration  
 0700 — 1800 Speaker Ready Room  
 0700 — 1900 Cyber Café  
 0830 — 1030 Plenary: Keynote Address 4  
 1030 — 1700 Exhibit Opens

## Friday 24 July 2009

0800 — 1700 Technical Tour

# Symposium Speakers



*Monday Plenary Speaker*

**Evolving a Systems Approach to Manage Complex Defence Systems**

**QUEK Tong Boon (Singapore)** is the Chief Defence Scientist and the Chief Research & Technology Officer of the Singapore Ministry of Defence (MINDEF). He is also a member of the DSO National Laboratories Board, the Defence Science and Technology Agency (DSTA) Board, the Agency for Science, Technology & Research (A\*STAR) Board, the Intellectual Property Office of Singapore (IPOS) Board, and a Board Director of Singapore Technologies Engineering Ltd.



*Tuesday Plenary Speaker*

**Challenge to Successful International Project**

**Toshifumi MUKAI (Japan)** is a Senior Chief Engineer of Japan Aerospace Exploration Agency (JAXA) and plays a leading role in improving systems engineering, project management processes and skill developments in JAXA. He has almost 40 years of experience in space projects and has contributed to the success of international projects, such as GEOTAIL with the ISAS (now JAXA) - NASA collaboration and BepiColombo with the ESA - JAXA collaboration.



*Tuesday Plenary Speaker*

**A Tale of Systems Engineering: Transfer From “Bull-Cart” to “Knowledge-Wagon”**

**Jung Uck SEO (Korea)** is Chairman of the e-Trade Facilitation Committee of the Korea International Trade Association and former Minister of Science and Technology of the Republic of Korea (ROK). He has been decorated by the ROK Government with Distinguished Service Award and the Gold Tower Order of Industrial Service Merit, the highest industrial decoration in Korea.



*Wednesday Plenary Speaker*

**Systems Engineering Comes of Age**

**Norman R. AUGUSTINE (USA)** is the former Chairman and Chief Executive Officer of Lockheed Martin Corporation who remains very active in both business and philanthropic pursuits. He is a member of the board of trustees of Colonial Williamsburg, a trustee emeritus of Johns Hopkins University, and a member of the boards of ConocoPhillips, Black & Decker and Procter & Gamble. Five times he was awarded the U.S. Department of Defense’s highest civilian decoration, the Distinguished Service Medal; and has received the Joint Chiefs of Staff Distinguished Public Service Award.



*Thursday Closing Plenary Speaker*

**Managing Innovation - The Elbit Systems Experience**

**Haim ROUSSO (Israel)** is the Executive Vice President for Engineering and Technology Excellence, Elbit Systems. Over 36 years in Elbit Systems Electro-Optics (Elop), ROUSSO has held various senior positions. He was awarded the prestigious Israeli Industry Prize in recognition of his leadership role in positioning Elop as the global leader in electro-optics, and in recognition of his managerial skills in encouraging the spirit of innovation and invention among company professionals.



## New This Year: Summit Forum

This is unique to this year's programme. You will engage with prominent experts from different continents on the topic "Systems Engineering: Past, Present, and Future."



**Patrick HALE (USA)**, President INCOSE will be the moderator for the summit forum. Pat is the Director of the System Design and Management graduate degree programme in the Engineering Systems Division at the Massachusetts Institute of Technology. His professional interests include application of systems

engineering in commercial product development, complex naval system design and engineering process frameworks and methods.



**D. NANDAGOPAL (Australia)** is Chief Systems Integration Officer, Defence Materiel Organisation, at the Defence Science and Technology Organisation. His responsibilities include strategic policy development, client programme planning and reporting across the organisation. Nandagopal is also the chair

of the Australian Research Council Research Network on Intelligent sensors, Sensor Networks and Information Processing.



**Tsu-Tian LEE (Taiwan)** serves as the President in the National Taipei University of Technology. He received the Distinguished Research Award from National Science Council, R.O.C, the TECO Sciences and Technology Award from TECO Foundation, the Academic Achievement Award in Engineering and

Applied Science from the Ministry of Education, Republic of China, and the National Endow Chair from Ministry of Education, Republic of China.



**PENG Yuan Shi, Willy (Taiwan)** is the Vice President of the Overseas Chinese Institute of Technology in Taiwan. He is also the Chairman of the INCOSE Taiwan Chapter. Prior to joining the academic field, he worked in the Taiwan aerospace industry for more than 30 years and participated in two large-scale systems

engineering development projects from commencement to operation with internationally recognised contributions.



**LUI Pao Chuen (Singapore)** was the Chief Defence Scientist, Ministry of Defence (MINDEF) in 1986. He relinquished this appointment after 22 years of service and is now the Chief Scientific Advisor of Ministry of Foreign Affairs, Advisor at the National Research Foundation, and serves as Consultant to

MINDEF. Prof Lui has received numerous awards due to his long service in the public service sector. He was also inducted into the Naval Postgraduate School Hall of Fame.



**Hillary SILLITTO (UK)** is the Chief Systems Architect of Land & Joint Systems, Thales, UK. From 2005 to 2008 he was seconded to UK MOD as head of the Integration Authority, responsible for managing system-of-systems interoperability and developing systems engineering skills in DE&S. He is a Thales

Expert, a Chartered Engineer, a Fellow of the Institute of Physics, and a visiting Fellow at the University of Bristol.



**Sung Ki MIN (Korea)** has two Ph. D. degrees. One in Mechanical Engineering from the Catholic University of America in USA and the other in Economics from Korea University. Dr Min has over 25 years experience in Defence Systems R&D. He retired as Brigadier General in 1996 and was the Head of Technical

Center of Daewoo Motor Co. responsible for the development and management of New Car Projects, before becoming the President, CEO of the Institute of Systems Engineering, Inc.



**TAN Peng Yam (Singapore)** is the Deputy Chief Executive (Operations) in Defence Science and Technology Agency (DSTA). He had held various appointments including Deputy Director of Directorate of R&D, Head of Defence Technology Office in the US and Deputy Chief Executive (Technology) at DSTA.

He is also a director on the boards of the DSO National Laboratories, ATREC Private Limited, Cap Vista Private Limited and Singapore Israel Industrial Research and Development Foundation.

## Paper Presentations

There are more than 120 quality papers and poster presentations:

- Human Systems Integrations
- Model-driven Systems Design
- Complex Systems
- Case Studies and Research
- System Thinking
- Requirements
- Process Improvement

Thirty minutes have been allocated to each presentation slot. Papers will be grouped into appropriate sessions that encourage discussion and learning.

The poster presentations will allow authors to present visually the most captivating aspects of his/her paper, or any other subject of mutual interest, face to face.

## Academic Forum

The academic forum will be organised in two sessions - on Monday, 20 July 2009 and Wednesday, 22 July 2009. These engaging sessions will discuss and debate issues pertaining to the future of systems engineering. Research seems to indicate that systems engineering will probably reach a Seldon crisis<sup>1</sup> in one to five years as the current international support in government and industry will probably begin to wane in the light of continuing acquisition cost and schedule overruns. The intent is to end the INCOSE 2009 Academic Forum with a plan for implementing a number of initiatives to forestall the crisis.

<sup>1</sup> Asimov, Foundation, Gnome Press, 1951

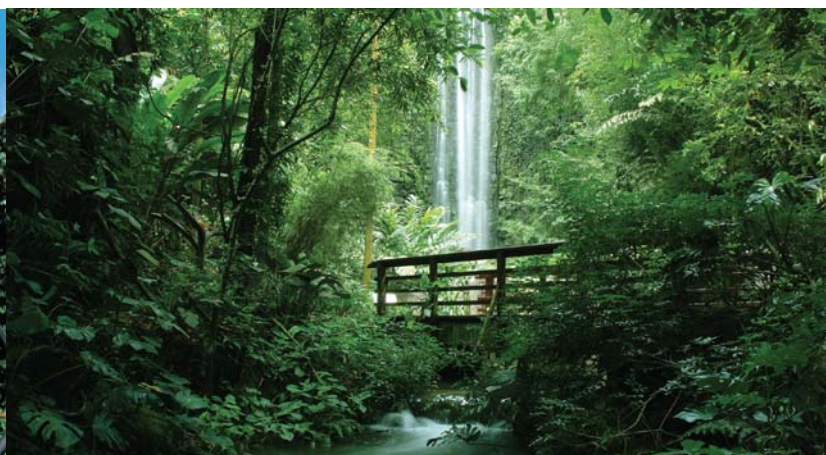
## Panels

There will be four panel sessions at the symposium covering the following topics:

- Has Asia Been Resilient to Natural Disaster Events and Terrorist Attacks? A Debate on the Issues
- Can We Engineer the Emergent Behaviour of a System of Systems?
- System Engineering Management Plan (SEMP) - Does One Size Fit All?
- What Defines a Systems Engineer? Comparing and Contrasting Global Perspectives on Systems Engineering Competency

## Tutorials

- INCOSE SE Handbook Tutorial in Preparation for SE Certification
- Lessons from Alice in Wonderland: Incorporating Metaphoric Thinking Into Communicating Complex System-of-Systems Issues
- Epoch-Based Analysis: A Method for Designing Systems for Dynamic Futures
- How to Teach Systems Engineering Using Magic and Other Techniques that Improve the Learning Process
- An Introduction to the OMG Systems Modelling Language
- The Human in the System: Using Systems Engineering and Human Systems Integration Tools Together to Enhance Design
- Establishing and Using Risk Management Effectively
- Developing Process Performance Baselines, Objectives, and Models
- The Human Side of Systems Architecting



## Special Events

MONDAY, 20 July 2009

### Welcome Reception

Soak in the atmosphere and join in the festivities as lion dancers perform to cymbals, drums and gongs and enthrall you with their stunts during the reception. The Host Committee has specially put together a hawker fare buffet that will let you indulge in some of Singapore's 'yummiest' local favourites!

TUESDAY, 21 July 2009

### Social Hour & Exhibition

The learning just doesn't stop, even at the social hour where you can update yourself with the industries' latest innovations and services in systems engineering. Amidst the learning, come and let your hair down, make new friends and renew old acquaintances with the exhibitors!



### Guest Programme

For guests interested in a guided tour of cosmopolitan Singapore, you may book in advance a day tour with our appointed tour agency, Luxury Tours & Travel Pte Ltd [www.luxury.com.sg/incose.html](http://www.luxury.com.sg/incose.html), at the international symposium. There will be a Tour Desk located in the conference registration area where you can make enquiries and bookings. Please refer to the INCOSE 2009 website for more details on the guest programme. We bring you a sneak preview of the exclusive tours here:

In a specially arranged tour, guests can visit the Royal Selangor factory, an international manufacturer of high quality and elegant pewter, and

WEDNESDAY, 22 July 2009

### Conference Dinner

We invite all delegates and guests to join us for a delightful evening of feasting and entertainment in oriental style. There will be a special Chinese banquet served, complete with symbolic wishes of happiness and longevity presented in the cuisine. The dining experience will of course be made complete with Singapore's unique kaleidoscopic cultural shows.



FRIDAY, 24 July 2009

### Technical Tour

The tour offers delegates and guests the unique opportunity to learn about Singapore's Water Story. It is an excellent example of the application of systems engineering in a large-scale national project. This not-to-be-missed technical tour is a full-day optional programme to be held on Friday, 24 July 2009. The itinerary will include visits to the Marina Barrage, the NEWater Visitor Centre, the Deep Tunnel Sewerage System, and the SingSpring Desalination Plant. The tour includes lunch and refreshments. Tickets are limited so do remember to book this tour as soon as you register for the symposium to avoid disappointment.



experience crafting your own masterpiece to bring back home.

For a taste of the Peranakan culture, you can join the tour which will take you to rows of colourful traditional shophouses and try your hand in stirring up some Peranakan gastronomic delights using the wok and aromatic spices. In yet another tour, the Heartland Tour, guests can experience the "real" Singapore by travelling in the MRT trains and shopping in the suburbs and town centres characterised by grocery shops, wet markets and hawker centres (food centres) and sample a taste of a typical Singaporean's life.



For further information regarding the guest programme, please email us at [is09@guestprog@nus.edu.sg](mailto:is09@guestprog@nus.edu.sg) or contact Ms Queenie Sim at Tel (+65) 6516 5838 or Ms Lim Hui Leng at Tel (+65) 6516 5113.

# General Information

## International Traveller Information

Singapore's open policy has made it easy for nationals from many countries to visit the city-state without visa requirements. All visitors should, however, visit the Immigration & Checkpoints Authority of Singapore (ICA) website [www.ica.gov.sg](http://www.ica.gov.sg) to check on the latest requirements.

Please note all visitors to Singapore must meet the following entry requirements:

- Valid travel document (minimum validity = six months);
- Onward / return ticket;
- Sufficient funds to stay in Singapore and
- Visa for Singapore (if applicable)

Generally, foreigners who do not require visas for entry and those visiting Singapore as tourists may be given up to 30-day social visit passes upon their arrival in Singapore. Tourists, however, should have valid passports, onward / return tickets, onward facilities (visas, entry permits, etc.) to their next destination and sufficient funds for their stay in Singapore. If they require a longer stay, they may apply to the Immigration and Checkpoints Authority after their arrival.

## Conference Venue

The symposium will be held at Suntec Singapore International Convention & Exhibition Centre [www.suntecsingapore.com](http://www.suntecsingapore.com), located in the downtown Marina Bay area. It is only 20 minutes (by car) from Changi International Airport, easily accessible by public transport (MRT trains, buses and taxis) and within walking distance to many hotels, tourist attractions and shopping malls.

## Hotel Information

Pan Pacific Singapore is the designated conference hotel for the event. It takes only several minutes to walk from the conference hotel to the symposium venue (Suntec Singapore) via a sheltered link bridge.

We have reserved a block of rooms at Pan Pacific Singapore from 17-27 July 2009, and secured preferential rates for our delegates during this period. To enjoy these preferential rates, delegates are required to visit the page on accommodation at the INCOSE 2009 website [www.incose.org/symp2009](http://www.incose.org/symp2009). Look for Pan Pacific Singapore's dedicated reservation website to make booking. A credit card number will be required to guarantee your reservation.

For assistance regarding hotel booking at the Pan Pacific Singapore, please contact Paulyn HOW at [phow@panpacific.com](mailto:phow@panpacific.com) or Tel (+65) 6826 8285.

For delegates who wish to stay at hotels other than Pan Pacific Singapore, the INCOSE 2009 website [www.incose.org/symp2009](http://www.incose.org/symp2009) provides a list of hotels located near Suntec Singapore for consideration.

## How to Register

Online Registration can be made from the symposium website at [www.incose.org/symp2009](http://www.incose.org/symp2009).

This year, the symposium is offering delegates open enrolment to all tutorials as a benefit of their full symposium registration; however, advance registration for tutorials is required and places will be given on a first-come, first-served basis.

Members can register by 10 May to enjoy early bird registration fee of US\$805 for a full four-day symposium.

## Confirmation of Registration

Payments shall be made in US Dollars and may be made by credit card, purchase orders or cheques payable to INCOSE/IS2009 Symposium. To pay by bank transfer, please send an email to [events\\_incose@askintconference.com](mailto:events_incose@askintconference.com) for wire transfer instructions.

Invoice/Receipt will be emailed within two weeks of receipt of Registration Form and payment. If you do not receive an Invoice/Receipt within three weeks of payment, please contact ASK International Conference by fax, or e-mail.

If payment is to be made by purchase order, please ensure that correct billing information is furnished on the Symposium Registration Form. Payment is due within 30 days of receipt of registration. Please note that no purchase orders will be accepted on-site. Payment in full of all symposium registration fees must be made by, or at the time of, on-site registration.

## Registration Cancellation Policy

A written request must be received by 30 June 2009.

- Members will receive a refund less a US\$75 processing fee. Payments of any INCOSE membership renewal fees will not be refunded.
- Non-members will receive a refund less a US\$180 processing fee. Non-member registrant will retain the complimentary one-year INCOSE Membership.

No refunds will be given for cancellations made after 30 June 2009 or in the case of registrant no-shows. Substitutions are allowed.

### Questions ?

For further information and assistance, please contact:  
**ASK International Conference (ASK)**  
 2 chemin de la Serre • 31450 BELBERAUD - France  
 E-mail: [events\\_incose@askintlconference.com](mailto:events_incose@askintlconference.com)  
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Register online [www.incose.org/symp2009](http://www.incose.org/symp2009) or  
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Register by 30 June to be included in the Symposium List of Participants!

Please type or print clearly  Prof.  Ms.  Mr.  Mrs.  Dr.

Family Name (Last Name) \_\_\_\_\_

Given Name/First Name (for name badge) \_\_\_\_\_ Middle Initial \_\_\_\_\_

Company/Organisation \_\_\_\_\_ Title \_\_\_\_\_

Street Address (Mailing) \_\_\_\_\_

Street Address (Mailing) \_\_\_\_\_

City (Mailing) \_\_\_\_\_

State or Province (for US/Canadian delegates) \_\_\_\_\_ Zip or Postal Code \_\_\_\_\_

Country \_\_\_\_\_

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### ALL FEES ARE LISTED IN US DOLLARS

| Registration Type      | Benefits   |
|------------------------|--|
| Symposium Registration | Includes all Technical Sessions including Tutorials, Admissions to Exhibits, USB Proceedings, Portfolio, Symposium lunches & breaks, Receptions, Social Hour (Students do NOT receive Banquet) |
| Day Registration       | Includes Technical Sessions, Tutorial(s), Lunch & Breaks, & Exhibits for the Selected Day(s), USB Proceedings. Social Events are NOT included. Tickets are available for purchase              |

| Member Registration  | By 17 May    | After 17 May | US\$  |
|--|--------------|--------------|-------|
| Member # _____   |              |              |       |
| <input type="checkbox"/> Full Symposium Member   | \$805        | \$940        | _____ |
| <input type="checkbox"/> Full Symposium Senior Member<br><i>(Status MUST be pre-approved by INCOSE Central)</i>  | \$400        | \$470        | _____ |
| <input type="checkbox"/> Full Symposium Student Member   | \$80         | \$80         | _____ |
| <input type="checkbox"/> 1-DAY Member**  | \$275        | \$300        | _____ |
| <input type="checkbox"/> 2-DAY Member**  | \$520        | \$570        | _____ |
| **Select Day or Days: <input type="checkbox"/> Mon 20 July <input type="checkbox"/> Tues 21 July <input type="checkbox"/> Wed 22 July <input type="checkbox"/> Thurs 23 July |              |              |       |
| <input type="checkbox"/> Annual Membership Dues  | \$105        | \$105        | _____ |
| <input type="checkbox"/> <i>INSIGHT</i><br><i>(4 issues – hard copy at member discounted price)</i>  | \$20         | \$20         | _____ |
| <input type="checkbox"/> <i>Systems Engineering, the Journal of INCOSE</i><br><i>(4 issues – hard copy at member discounted price)</i>                                       | \$20         | \$20         | _____ |
| <input type="checkbox"/> Annual Senior Membership Dues   | \$55         | \$55         | _____ |
| <input type="checkbox"/> Annual Student Membership Dues  | \$20         | \$20         | _____ |
| <input type="checkbox"/> INCOSE Foundation Donation  | Enter Amount |              | _____ |
| <i>(Donation is tax deductible in the US – refer to: <a href="http://www.incose.org/about/foundation/index.aspx">www.incose.org/about/foundation/index.aspx</a>)</i>         |              |              |       |

| Non Member Registration  | By 17 May | After 17 May | US\$  |
|--|-----------|--------------|-------|
| <input type="checkbox"/> Full Symposium Non-Member   | \$910     | \$1045       | _____ |
| <input type="checkbox"/> Full Symposium Student Non-Member   | \$100     | \$100        | _____ |
| <input type="checkbox"/> 1-DAY Non-Member**  | \$380     | \$380        | _____ |
| <input type="checkbox"/> 2-DAY Non-Member**  | \$625     | \$675        | _____ |
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### Survey Questions

- Please DO NOT publish my name and contact information in:
  - INCOSE directory  2009 List of Symposium Participants
- Are you the presenter of a paper in a technical track?
  - Yes  No
- Chapter Affiliation: \_\_\_\_\_
- In which Domain do you work:
  - Industry  Government  Academia  Non-Profit
- What INCOSE Working Groups (WG) would you like to learn more about and participate in? (Circle one or more)
  - Accreditation  Air Transportation  Anti-terrorism International
  - Architecture  Biomedical  Complex Systems  Cost Engineering
  - Defense Systems  Education  GEOSS  Human Systems Integration
  - Information Systems  Infrastructure  Intelligent Enterprises WG
  - Intelligent Transport & Transit Systems  Lean Systems Engineering
  - Measurement  Model-driven System Design  Motor Sports
  - Net-centric Operations  Power and Energy Systems
  - Process Improvement  Requirements  Research
  - Resilient Systems  Risk Managements  Space Systems
  - System Safety Integration  Systems Engineering in the Commercial World
  - Systems Security Engineering  Technology Life Cycle  Tools Database
  - Tools Integration & Interoperability  Verification & Validation

| Additional Cost Items   | No.           | Total |
|---|---------------|-------|
| Proceedings (USB)   | \$60 x _____  | _____ |
| Optional Friday Technical Tour<br>Technical Tour, Friday, 24 July | \$60 x _____  | _____ |
| Optional Tickets for Guests<br>Monday Ice-Breaker Reception       | \$60 x _____  | _____ |
| Tuesday Social Hour   | \$35 x _____  | _____ |
| Wednesday Symposium Banquet                                       | \$95 x _____  | _____ |
| 3-in-1 Social Event Package                                       | \$170 x _____ | _____ |
| Lunch**   | \$50 x _____  | _____ |

\*\*Select Day or Days:  Mon 20 July  Tues 21 July  Wed 22 July  Thurs 23 July

Please indicate any special dietary requirements: \_\_\_\_\_

Name of Guest(s) (Required for badge if guest is purchasing events/meals or optional tour)  
 \_\_\_\_\_

### Payment Method

All cheques, money orders, bank wires and credit card transactions shall be in US Dollars:

- Cheque.** Remit payment upon receipt of invoice. Funds shall be made payable to INCOSE/IS2009 Symposium
- Bank wire.** An invoice with bank wire information for payment will be sent to you. All bank fees are responsibility of sender.
- Purchase Order (PO)** addressed to INCOSE/IS2009 Symposium. No PO will be accepted on-site
- VISA**  **Master Card**  **American Express**

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For more information on sponsoring at the INCOSE 2009 in Singapore, please contact Mr Cheah Kok Keong or Ms Lim Hui Leng at (65) 6516 5113 or email us at [is2009@nus.edu.sg](mailto:is2009@nus.edu.sg).

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- INCOSE
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- The Institution of Engineers, Singapore
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**Mark Your Calendar:**

**INCOSE 2010, Chicago, 11 – 15 July**

Join us to celebrate the 20th INCOSE International Symposium  
Submission date for papers, tutorials and panels: 03 November 2009