



2013

INCOSE Annual Report



ABOUT INCOSE

The International Council on Systems Engineering – INCOSE – is a professional membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. Visionaries from industry, academia and government recognized the need for more engineers who possessed systems thinking capability able to deliver project results on-time, within budget and performance requirements.

An immediate and continuing benefit to members is a collaborative environment in which colleagues can share best practices, not only of systems engineering, but also of professional development. 2013 marked our twenty-third year and, in that time, INCOSE has grown to over nine thousand members representing a broad spectrum from student to senior practitioner; from technical specialist to corporate senior manager; from scientist and engineer to business development professional in commerce and industry; from educators and researchers in academic institutions to those serving their countries through the military and in government agencies. INCOSE is truly a community of members working together to advance their technical knowledge, exchange ideas, and promote the value of systems engineering.



INCOSE MISSION AND VISION

INCOSE's mission statement commits its members to share, promote and advance the best of systems engineering from across the globe for the benefit of humanity and the planet.

The INCOSE Vision provides the focus to be recognized as the world's authority on Systems Engineering.

INCOSE GOALS

- Provide a focal point for dissemination of systems engineering knowledge;
- Promote international collaboration in systems engineering practice, education and research;
- Assure the establishment of competitive, scalable professional standards in the practice of systems engineering;
- Improve the professional status of all persons engaged in the practice of systems engineering;
- Encourage governmental and industrial support for research and educational programs that will improve the systems engineering process and its practice.

INCOSE's organization, operations and initiatives all exist to serve these overarching goals.

TABLE OF CONTENTS

About INCOSE

INCOSE Mission and Vision	2
INCOSE Goals	2

Message From the President

4

INCOSE Financials

Financial Report	5
------------------	---

The Year In Review

Certification	6
Technical Operations	6
IT Infrastructure	7
Strategy	8
INCOSE Sectors	8

The Year In Review (*continued*)

Academic Matters	10
International Outreach	10
Industry Outreach	11
INCOSE Fellows	11
Communication/Publications/Social Media	12
Corporate Advisory Board	12

INCOSE Events Calendar – 2013

13

Awards – 2013

Chapter Awards	14
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Board of Directors – 2013

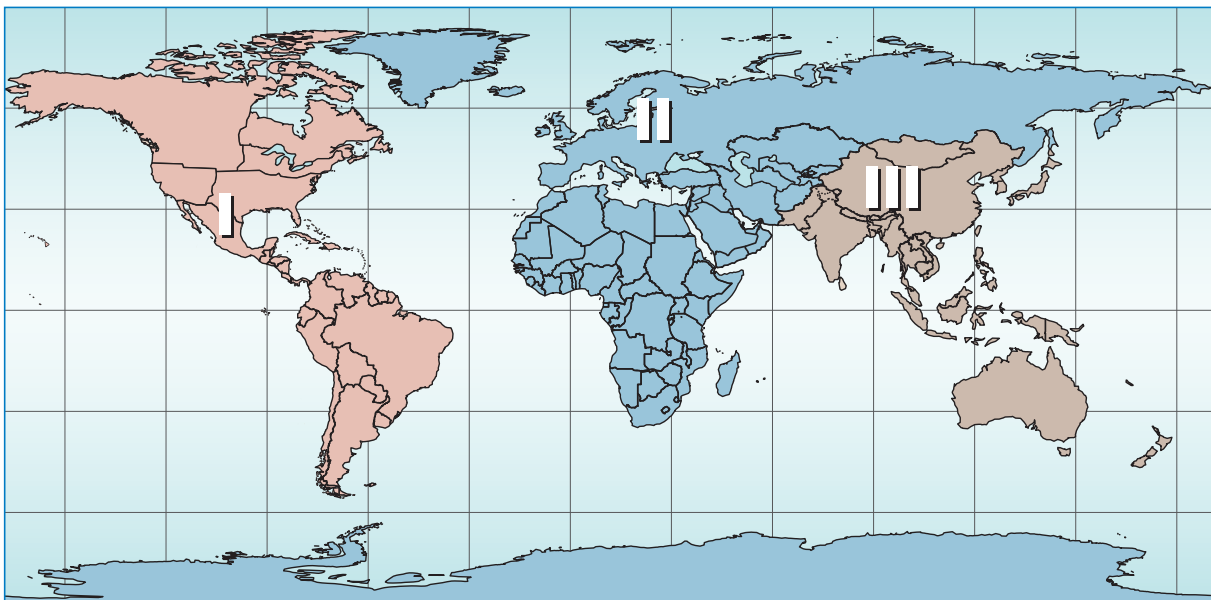
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INCOSE Geographic Sectors

SECTOR I: Americas

SECTOR II: Africa, Europe, Russia, Israel and Turkey

SECTOR III: Asia (*excluding, Russia, Israel and Turkey*) and Oceania



MESSAGE FROM THE PRESIDENT

As we look back, reflect upon, and celebrate INCOSE's progress in 2013, we see a story of action. We gathered in Jacksonville to work at our International Workshop; in Philadelphia for a highly successful 23rd International Symposium; in Yokohama (APCO-SEC) and West Lafayette (Great Lakes Regional Conference) to share insights and experiences; in Hamburg, Copenhagen, and Stockholm as stops along the innovative Nordic Systems Engineering Tour; and at countless national and local events around the world. But those public events are just the beginning. The real story is what happens behind the scenes throughout INCOSE as chapters and working groups collaborate to share experiences and expand our knowledge to advance the practice of systems engineering around the world.



More importantly, as we review 2013, we see a story of evolution. Sir Isaac Newton said “if I have seen further it is by standing on the shoulders of giants.” INCOSE certainly seeks to see further, to better serve the practice and practitioners of systems engineering as we near our 25th anniversary. We do so by building upon the successes of the past while positioning ourselves for the future. That involves continuing to improve products such as the Systems Engineering Handbook while also collaborating with partners on new products such as the Systems Engineering Body of Knowledge and the Graduate Reference Curriculum for Systems Engineering. It means looking to the future in Vision 2025, forecasting the changing shape of the global environment and the way in which systems engineering must evolve to meet human and societal needs. It means understanding who we are and what we value as an organization so that we remain true to these principles as we continue to grow, advance, and respond to these changing needs.

Not everything that we began in 2013 (or even 2012) came to fruition this year. Like the real story of action, much of the progress is behind the scenes, slated for launch in 2014. Nonetheless, as you read the pages that follow, you

will see a story of continued investment in our practice and our future so that we can better connect, serve, and advance our practice in a truly global sense—across organizational boundaries, domain boundaries, and geographic boundaries—engaging both the full-time systems engineer and those for whom systems is simply part of what they do.

As we reflect upon 2013 and look forward, it is valuable to look beyond who INCOSE is to the motivations that drive the organization and our membership. Fundamentally, we believe the systems perspective is essential to developing solutions for complex and challenging problems.

We believe the interesting things are often found in the gaps—between disciplines, between technologies, between components. We believe the true challenges of today and tomorrow are systems challenges and that without the systems perspective, we cannot address these challenges effectively, efficiently, and free from unintended consequences.

As we continue to advance and evolve as an organization, INCOSE will continue to connect systems practitioners around the world. We will continue to create, advance, and broker information on systems approaches to help the broader community address complex challenges. We will champion the systems perspective and the unique value of systems engineering and those who apply it.

This is the story of INCOSE in 2013 and the story of what we believe to be an organization preparing for a very dynamic future.

A handwritten signature in dark ink that reads "D. Long". The signature is fluid and cursive, with the first name "D." and last name "Long" clearly distinguishable.

David Long

david.long@incose.org

INCOSE FINANCIALS

FINANCIAL REPORT



In compliance with INCOSE policy, this article provides a financial report of the 2013 fiscal year.

Financial Results for 2013

Through continued economic turmoil, INCOSE

has continued our mission to deliver the best services and products that we can to our members. Better than expected revenue from the International Symposium in Philadelphia, has allowed us to meet our increased responsibilities. We continued to facilitate the growth of the systems engineering profession through investments in our certification program, stable support of our conferences, ongoing academic outreach, sustained commercial outreach and support to our chapters and sectors.

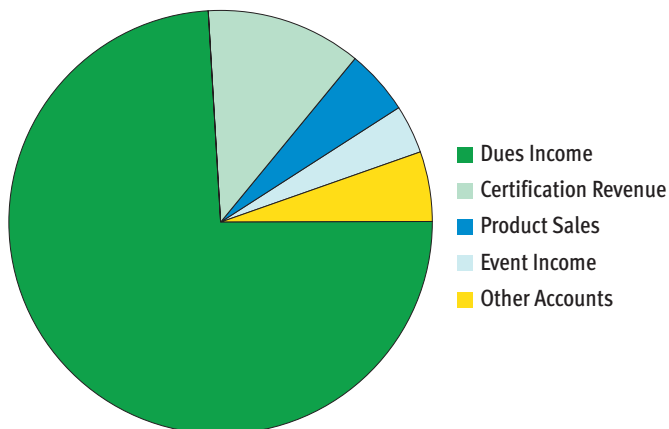
INCOSE has continued to demonstrate value through a variety of products and services. Our professional magazine, *INSIGHT*, continues to bring insights to practitioners.

The role of INCOSE as the world's leading center for systems engineers has helped support continued membership growth. Our systems engineering leadership has served to attract and retain leading organizations to the INCOSE Corporate Advisory Board and to the Academic Council.

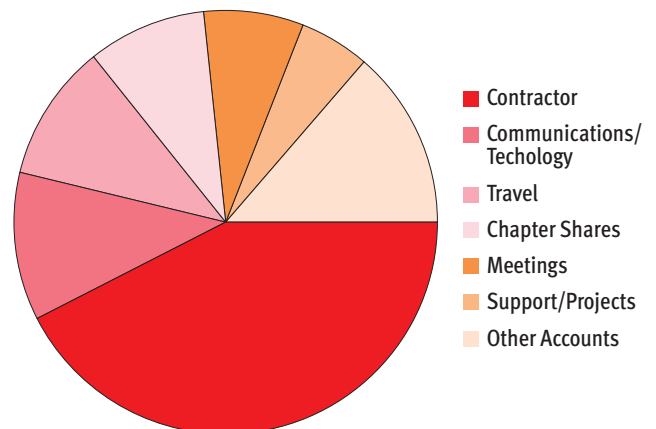
Recognition of the value of partnering with INCOSE has continued in our developing relationships with the Program Management Institute and the Institute of Electrical and Electronics Engineers. Finally, INCOSE authors were major contributors to the successful continuation of BKCASE, now available at www.sebokwiki.org. We continue this important work.

INCOSE's income for 2013 was USD 1,770,000 (102% of plan), while expenses were USD 1,527,000 (83% of plan). This left us with a net surplus of USD 243,000. This income growth over the year was due to better than expected symposium income, certification application fees, Corporate Advisory Board dues, and individual membership dues. Our combined membership dues continue to provide about 73% of our operating income. Expenses include various items including sharing dues revenue with chapters, expenses of certification, information-technology expenses, publication expenses, marketing, Technical Operations support costs, administrative office costs and expenses. The INCOSE Board of Directors plans to continue its efforts over the next few years to enable our organization not only to grow, but also to expand our income by supplying effective and valued products and services to our membership as well as to all systems engineers and associations that seek our collective value.

INCOME



EXPENSES



THE YEAR IN REVIEW

CERTIFICATION

INCOSE's Professional Certification Program evolved to reach a larger group of systems engineering professionals in 2013. "The INCOSE certification program is confident our partnerships with the German and UK chapters will expand the quality of systems engineering practice in Europe," reports Program Manager Courtney Wright, CSEP. Those agreements, implemented in 2013, allow for individuals to take alternate but equally rigorous paths to INCOSE certification. The tailoring and verification processes of systems engineering were applied in developing and evaluating these alternate paths. Once again, INCOSE had more than 30% growth in certified professionals in 2013. Growth was particularly strong in Expert Systems Engineering Professionals, whose numbers increased by nearly 50% in 2013. INCOSE certifications have been awarded in 32 countries, and the Certification Program is helping attract and retain members. As shown in Figure 1,

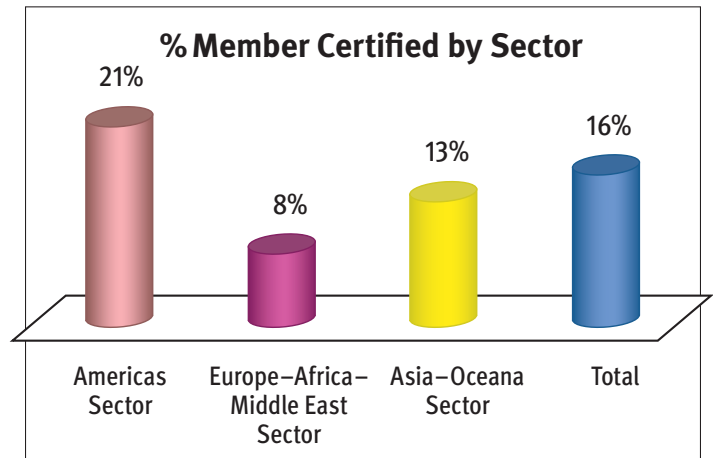


Figure 1 – INCOSE Members who hold INCOSE Certifications

individuals with INCOSE certifications now represent 16% of all INCOSE members, including 21% of all members from the Americas Sector.

TECHNICAL OPERATIONS

Technical Operations brings value to INCOSE stakeholders by providing information through events, products, working group participation, technical initiatives and technical information repositories. Led by William Miller and Paul Schreinemakers, Technical Director and Deputy Technical Director respectively, 2013 saw 47 formally chartered international working groups and three major initiatives: Standards, Model Based Systems Engineering (MBSE), and the Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE) wiki. Technical Operations also provides technical resources to the Systems Engineering Vision 2025 project.

■ There were several notable accomplishments in 2013:

1. *The Guide to Lean Enablers for Managing Engineering Programs* issued in 2012 in collaboration with MIT and PMI won the Shingo Research and Professional Publication Award. The Shingo Prize is awarded to organizations that demonstrate a culture where principles of operational excellence are deeply embedded into the thinking and behavior of all leaders, managers, and associates.

2. Beginning in January, the ongoing operation and sustainment of BKCASE was transitioned to a Governing Board and Editorial Board with INCOSE, IEEE Computer Society and the Systems Engineering Research Center (SERC) as the three stewards. The Editorial Board released 3 updates and opened a "sandbox" for public contributions to the Systems Engineering Body of Knowledge.
 3. Creation of three new working groups: Automotive, Natural Systems, and a joint NAFEMS-INCOSE Systems Modeling & Simulation working group.
- Significant investment of INCOSE technical resources in 2013 included:
1. The MBSE Initiative progressed with a workshop at the 2013 International Workshop and the MBSE track at the 2013 International Symposium to advance the state of the art and the state of practice with 6 challenge teams, 7 activity teams, 2 affiliated INCOSE Working Groups, and the joint NAFEMS-INCOSE Working Group.

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THE YEAR IN REVIEW *(continued)*



INCOSE Awards presented at the 2013 International Workshop

2. Contributed to the revision of ISO/IEC 15288 Systems and software engineering—System lifecycle processes and responding to comments from the initial ballot in 2013 with a second ballot and targeted release now in 2014.
 3. Contributed to the drafting of ISO/IEC DTR 29110-5-6-2 Systems and software engineering—Systems Engineering Lifecycle Profiles for Very Small Entities (VSEs)—Part 5-6-2: Management and engineering guide: Generic profile group: Basic profile for ballot submission in 2014.
 4. Revised and completed the technical review of the Systems Engineering HandBook Version 4 aligned with the revision of ISO/IEC 15288 now also scheduled for release in 2014.
 5. Continued communication and interaction with the Corporate Advisory Board (CAB) to analyze the needs of industry, government and academia and to respond to those needs through products and webinars.
- INCOSE Working-Group Awards presented at the 2013 International Workshop:
 1. Product of the Year: BKCASE/Systems Engineering Body of Knowledge and Graduate Reference Curriculum for Systems Engineering
 2. Sustained Performance: Systems Science Working Group
 3. Sustained Performance: Requirements Working Group
 4. Sustained Performance: Systems Engineering for Very Small and Micro Entities Working Group
 5. Achieving the Systems Engineering Vision: United Kingdom Chapter
 6. Collaboration: Lean Systems Engineering Working Group and the Lean Enabler for Project Management Sub Group
 7. Collaboration: SESA /Australian Chapter Model-Based Concept Design Working Group.

IT INFRASTRUCTURE

In 2013, INCOSE continued investments into an IT infrastructure solution that will provide an updated public website, improved member management, and new collaboration capabilities. The goal of these upgrades is to increase the value of INCOSE membership by continuing to support and expand core functions of the current site while providing a common platform for members, chapters, working groups, and other collaboration communities. A common platform will streamline training and support issues while the new tools provided by the IT infrastructure will empower members to establish connections and foster improved collaboration across organizational and geographical boundaries.

INCOSE conducted a soft launch of the new sites in 2013 to a limited number of members and started an in-depth review of the new capabilities. When fully launched in 2014, these upgrades will use a combination of mature technology and services to support continued organizational growth, increase collaboration, and realize our goals. After implementation is complete, the infrastructure will leverage integrated analytics to measure effectiveness and continuously improve based on these metrics.

THE YEAR IN REVIEW *(continued)*

STRATEGY

During 2013 the INCOSE Board of Directors completed an activity started in 2012 to finalize the statement of the INCOSE core values: those ideas that unite us and which together make INCOSE distinctive. These values percolate through everything we do and inform both our strategic and tactical decisions.

- *Systems Thinking* – thinking and acting to apply systems approaches to address complex challenges and thus to realize successful sustainable solutions.
- *Pioneering and Innovation* – taking opportunities ourselves or with partners to evolve systems approaches to meet future challenges.
- *Learning and Development* – life-long learning with a changing world through education and continuing professional development, covering both technical and leadership competencies.
- *Respect, Diversity, Collaboration* – building and maintaining respectful relationships internally and externally in order to enable effective collaboration across the diverse community.
- *Individuals* – the importance of people, their intellect and influencing skill, to support complex decisions and to deliver enduring change.
- *Volunteerism* – volunteers and staff working together to achieve our objectives and to deliver benefit to our members, individuals and society.

The Board also continued to mature a set of 5-year objectives that, when complete, will shape how INCOSE grows and evolves and in doing so offers enhanced value to current members, potential new members, and wider society. Following further work and socialization we plan that these objectives will be published in 2014 and then used annually to guide and focus INCOSE's efforts while also being extended annually to maintain a rolling five year view into our picture.

Looking forward to a changing planet, INCOSE committed to producing The Systems Engineering Vision 2025, a collaborative forecast of the expected trends and implications of systems engineering theory and practice. The development of the SE Vision 2025 began in 2012 resulted in a complete draft by the end of 2013. INCOSE anticipates that this will support the future orientation of INCOSE, provide guidance to SE stakeholders in the world and position the organization as the Systems Engineering thought leader. The final version will be the basis for collaboration with other domains.

INCOSE SECTORS

In 2011, INCOSE made a change to its structure that established three geographic sectors: the Americas, EMEA (Europe, Middle East, and Africa) and Asia-Oceania. Sector activities are conducted within each Sector as well as in collaborative settings where best practices are shared.

THE AMERICAS

The Americas Sector of INCOSE was home to 5,469 of INCOSE's 9,422 members by the end of 2013. Most of these members are also members of their local INCOSE chapter, of which there are 43 in the United States and several others in Central and South America and Canada. In the US, chapters are organized into four geographic groupings, each with an INCOSE Assistant Director: Eric Belle in the West, Jack Stein in the North Central, Don Gelosh in the Northeast and David Takacs in the South.

INCOSE Chapters focus on three main activities—regular chapter programs, local working groups and special events. Chapter programs usually take the form of dinner meetings with an invited guest speaker on a topic related to systems engineering. In 2013 a number of chapters expanded their use of satellite meeting sites where groups of members can meet in a convenient location, linked to the main meeting site through online video conferencing. In this way, members can meet together without a long drive and still participate in chapter activities. Increasingly, chapters are forming local working groups focused on a systems engineering topic and working together with other local members and international working groups to further the profession.

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THE YEAR IN REVIEW *(continued)*

Chapter special events were a highlight of 2013 with several key conferences including the 7th Annual Great Lakes Regional Conference held on the Purdue Campus in Indiana, and the Brazil Systems Engineering Week held in Sao Paulo. For the first time, a unified Canadian INCOSE event was held in Ottawa with local and remote participation from all over the country and the Americas.

INCOSE Americas also continued its outreach through student divisions, each associated with a chapter, and through local participation in student science fairs and the FIRST Robotics Competitions.

EMEA

By the end of 2013, there were 16 EMEA chapters:

Denmark	Russian Federation
Finland	South Africa
France (AFIS)	Spain
Germany (GfSE)	Sweden
Israel (ILTAM)	Switzerland
Italy	The Netherlands
Norway	Turkey
Poland	United Kingdom

Outreach has been done with some emerging chapters in Middle East and North Africa (MENA).



EMEASEC welcomes INCOSE President David Long Gerard Auvray, Erik Herzog, Terje Fosness, Rene Oosthuizen, Tom Strandberg, Jean-Claude, David, Omar Hammami, Sven-Olaf Schulze

Preparation and marketing began for the EMEASEC 2014 (Europe, Middle-East, Africa Systems Engineering Conference), a continuation of the biennial European SE conference.

A new Sector Director for EMEA was elected in November 2013. Jean-Claude Roussel will chair the EMEA Sector from January 2014 until January 2017.

ASIA-OCEANIA

In 2013 India-South (at Bangalore) chapter continued activities begun after the chapter was chartered in 2012. Within a year, the chapter membership and the number of certifications grew to over one hundred, respectively, making the chapter rank as the second largest after Australia. There is also another movement to establish the India-Central chapter in the city of Hyderabad. Additional promising expansion is the second chapter in China-Central.

There are three new contacts established in the following countries who have expressed interest in creating new INCOSE chapters. The ground-breaking activities have begun to inform the roles and importance of SE and to seek prospective members:

Pakistan	Thailand
Vietnam	China-Hong Kong

The sector-wide systems engineering conference, APCOSEC 2013, was held in September 2013 in Yokohama, Japan. The conference was successfully held with 160 attendees from fifteen foreign countries and 80 papers being presented in sixteen Technical Sessions. There were ten sponsored exhibitors in attendance.



The APCOSEC 2013 Pioneer Award

THE YEAR IN REVIEW *(continued)*

ACADEMIC MATTERS

The value of INCOSE to the academic community continues to grow. **GRCSE**, the Graduate Reference Curriculum for Systems Engineering (www.bkcase.org/grcse)—a set of recommendations for master's programs in systems engineering that was published at the end of 2012—is now being used to improve or launch systems engineering programs in a number of universities around the world. The Systems Engineering Body of Knowledge (SEBoK) first released in September 2012, went through two minor updates in 2013, and has become one of the most widely accessed resources anywhere on systems engineering. In 2013 alone, nearly 40,000 people accessed the SEBoK in a wiki format at www.sebokwiki.org and thousands more downloaded PDF copies of the SEBoK as well. Both products successfully transitioned to shared stewardship between INCOSE, the Systems Engineering Research Center, and the IEEE Computer Society.

The Academic Council, made up of the university members of INCOSE, added three more universities during 2013, bringing the total to 22 members from Europe, Asia, North America, and Australia.

In his first year as *Editor-in-Chief of Systems Engineering*, the *Journal of INCOSE*, Dr. Oli de Weck instituted a number of improvements to the Journal by modernizing the paper review process, restructuring the Editorial Board, planning special issues around topics with high reader demand, and working with the Journal's publisher to potentially increase the number of issues published annually from four to six. These improvements to INCOSE's flagship publication are all expected to increase the

Journal's quality, readership, and impact over the next several years.

Successfully completing its third year of publication, the **Journal of Enterprise Transformation**, which INCOSE publishes jointly with the Institute of Industrial Engineers, continues to mature. There were 2,500 full-text article downloads in 2013.

Student membership continues to grow. The number of INCOSE student members grew from 136 at the end of 2012 to 266 by mid-2013. INCOSE continued to sponsor FIRST Robotics and Engineering is Elementary as major components of its Youth Outreach Initiative.

The Academic Council sponsored its first workshop outside the International Symposium. Hosted by Cranfield University in the UK in October 2013, the workshop explored how to integrate systems engineering and systems thinking into the education of all university students.



Academic Forum Participants at Cranfield, October 2013

INTERNATIONAL OUTREACH

Tat Soon Yeo, Director for International Outreach, with the help of appointed ambassadors, develops, implements, and maintains a strategy and plan for reaching out to untapped areas of high-potential membership. The goal is to increase membership and member services at the individual and corporate level on a global scale. The goal is the same in all sectors: expand our reach to companies, organizations and systems engineers who are not aware of INCOSE and foster a willingness to work together and share the best practices of systems engineering. 2013 saw growth in membership

numbers in each of the three sectors, with a corresponding increase in certifications. Particularly noteworthy in this year is having the Aviation Industry of China joining as a CAB member. 2014 promises to be a rapid growing year for certifications coming from China.

TS Yeo leaves the post of Director for International Outreach after 6 years of service. This marks a change as the Directorship itself will not be renewed. These activities will be part of a larger strategic outreach effort.

THE YEAR IN REVIEW *(continued)*

INDUSTRY OUTREACH

The Industry Outreach Board, led by Anne O'Neil, Director for Industry Outreach, focuses on how to connect with and how to increase INCOSE's relevance to all industry sectors. In the past several years INCOSE has witnessed a growing number of organizations outside the traditional defense/aerospace domains looking for ways to address challenges they face deploying and expanding technology-based systems. Currently four industries have established a growing presence within the INCOSE SE community; they include: Automotive, Biomedical/Healthcare, Power & Energy, and Ground Transportation.

The Outreach Board's vision is to position INCOSE as a resource for these sectors that have not historically

applied systems engineering. Serving as a forum for burgeoning practitioners and systems champions to collaborate across industry supply chains and exchange effective SE application practices, INCOSE contributes to advancing the state of SE practice. As complexity and systems challenges increase, it is critical to understand the underlying business needs and core competencies to know which systems engineering tools and principles will work best in the diverse domains. To reinforce our reach into these domains, INCOSE has sought strategic partnerships with established industry associations. In the biomedical/healthcare domain, AAMI (Association for the Advancement of Medical Instrumentation) serves as one such collaborative partner.

INCOSE FELLOWS

In 2013, the INCOSE Fellows made great strides in advancing the practice of systems engineering through a number of activities and projects. Fellows were involved in the International Science and Engineering Fair (ISEF), where the INCOSE Award is given to the best interdisciplinary project that can produce technologically appropriate solutions to meet societal needs. The Award, acknowledged at the 2013 International Symposium, was won by Kai Thorin Kloepfer, a student at Fairview High School in Boulder, CO for his project: Biometric Electromechanical Firearm Safety. The INCOSE Award is \$1500.

The INCOSE Fellows also participate in selecting the INCOSE Foundation/Stevens Institute Doctoral Award for Promising Research in Systems Engineering and

Integration. The 2013 recipient is Louis Pape, pursuing a PhD and exploring methods of modeling Systems of Systems architectures using fuzzy inference systems and genetic algorithms for input to agent based acquisition and development models.

Four new Fellows were named in 2013: Eileen Arnold, Patrick Godfrey, Michael Pennotti, Garry Roedler.



Lou Pape receives Doctoral Award from John Thomas, INCOSE President 2012/13



Eileen Arnold



Patrick Godfrey



Michael Pennotti



Garry Roedler

Photos by Andy Pickard

THE YEAR IN REVIEW *(continued)*

COMMUNICATION/PUBLICATIONS/ SOCIAL MEDIA

INCOSE continues in meeting its dissemination objectives through a broad variety of channels. The use of digital channels continues to increase as more members become active participants on LinkedIn, Facebook and Twitter where INCOSE has established a strong presence. These social media outlets also accommodate outreach goals by attracting those curious about systems engineering. Participation in discussions and contributions increased significantly in 2013 thanks to strong support from J. Walcher Associates.

This year, twenty unique stories were placed through the strong support of INCOSE's PR team, J. Walcher Associates. These included: National Public Radio's station, WHYY in Philadelphia and the Philadelphia Inquirer in connection with the International Symposium. Four members were featured in a new column in **INSIGHT**: Spotlight Q&A: Suja Joseph-Malherbe, Jen Narkevicius, Wolt Fabrycky and Courtney Wright.

A monthly eNote keeps members abreast of upcoming events, webinars, and important deadlines such as awards submissions and Foundation scholarships.

CORPORATE ADVISORY BOARD

In 2013, the INCOSE Corporate Advisory Board (CAB), under the leadership of Garry Roedler and Max Berthold, continued to influence INCOSE as a key stakeholder group and expanded to almost 100 member organizations (corporate, government, and academic).

During 2013, the CAB continued to work with increased transparency between INCOSE's Technical Operations as well as Industry Outreach. This work has been a catalyst to establish the underpinnings for considering INCOSE Enterprise Needs, rather than just focus on CAB Needs. This activity provides a perspective that supports growth and collaboration across INCOSE by integrating the needs for prioritization and allocation of resources.

As part of the increased transparency the CAB meetings contained a number of presentations from INCOSE's

Advertising on the eNote has been healthy and provides relevant information on SE training and educational opportunities. The INCOSE website is kept current with news and events and remains the best source of up to date information about the organization.

The INCOSE magazine **INSIGHT** continued its quarterly cycle with four strong themed issues on Systems Engineering Professional Certification, The Buck Stops Here: Systems Engineering's Responsibility for Systems Security, and reports on the 23rd Annual INCOSE International Symposium and AFIS Doctoral Symposium: Systems Engineering Research Challenges in French Universities. Each issue also featured a President's corner, a Spotlight on INCOSE volunteers, book reviews, and reports from the sectors on events and other noteworthy news items. These, and every issue back to 1994, are available to members through the archival library maintained on Connect. This was also the second year that members were polled for their choice for best issue and best article. The Buck Stops Here: Systems Engineering's Responsibility for Systems Security was Readers' Choice for best issue, and Mark Wilson and Rick Dove each received awards for their articles on certification and systems security, respectively.

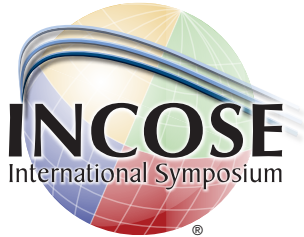
Working Groups. This has provided an opportunity for Working Groups and CAB members an open channel of communication. The information sharing will further enable the CAB role as a key advisory group and "voice of the customer."

One CAB need that has received extra attention during 2013 is the development of a framework for Systems Engineering professional development. The intensified interest from the CAB resulted in a new role: CAB Integration Manager intended to provide focus and drive collaboration in a common direction especially when there are several groups supporting part of a common initiative. The Systems Engineering professional development task spans the CAB, Industry Outreach Board, Technical Operations (multiple working groups), and Chapters.

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INCOSE EVENTS CALENDAR – 2013

Thirty-eight events were posted to the 2013 Events Calendar available on the INCOSE home page (<http://www.incose.org/>). Of these, ten were the monthly webinar series including the traditional biennial presentation of position statements by the candidates for the position of President-elect. The INCOSE Webinar series is produced by Andy Pickard.



The International Symposium (IS) is the flagship event for INCOSE and systems engineers worldwide. The symposium held in Philadelphia in June introduced a Mentor Challenge and was the first time a USA-based event hosted the Tool Vendor Challenge. The keynote address from Professor Brian Collins was uploaded to YouTube; and, this is the first time this form of asynchronous content from an IS has been available to the general public.

Volunteers, who are the life-blood of this organization, gather annually at the beginning of the year for the International Workshop (IW). An MBSE workshop is held concurrently with the IW and attracts an increasing number of participants for two days of intensive activities. “Each year we make strides in advancing the professionalism and technical content of our INCOSE events,” according to Paul Schreinemakers, Deputy Technical Director. Both events continue to grow and attract systems engineers from around the globe.

Events are organized at the sector and chapter level as well as the aforementioned international events. INCOSE is proud to see the number of mini-conferences growing

each year to support the networking and dissemination objectives of the INCOSE worldwide. In 2013 these included:

- the annual APCOSEC organized by the chapters in Sector III and held in Yokohama, Japan;
- CSER, our premier systems engineering research conference;
- the 5th annual Kongsberg Systems Engineering Event;
- the 7th Annual INCOSE Great Lakes Regional Conference on Systems Engineering;
- the annual German Systems Engineering Conference;
- the 4th annual CSDM held in Paris, France.

In 2013 there were three inaugural events that are sure to become a part of the annual calendar:

- the INCOSE Brazil Systems Engineering Week;
- the Australian Systems Engineering Workshop;
- the Nordic Systems Engineering Tour – a unique 3-stop event sponsored by the Swedish and German chapters with full-day programs in Hamburg, Copenhagen, and Stockholm.

A final category of events were those co-hosted with partner organizations, namely:

- the Systems Engineering and Test and Evaluation Conference (SETE), co-sponsored by INCOSE, SESA, and ITEA;
- EnergyTech 2013 co-sponsored by INCOSE and IEEE;
- ICSSEA 2013 25th International Conference on Software & Systems Engineering and their Applications, co-sponsored with AFIS and Génie Logiciel.

Year in Review – Corporate Advisory Board [continued](#)

The CAB also continued its support for and engagement with the INCOSE IT infrastructure upgrade. The improved access to INCOSE products throughout CAB organizations,

along with improved collaboration and corporate login environments, are intended to enhance the value of CAB membership and the value of INCOSE.

AWARDS – 2013

BENEFACTOR AWARD: Wolt Fabrycky



Wolt Fabrycky accepts the first Benefactor Award established to recognize an individual or group for personal generosity that has contributed uniquely to the enhanced reputation and recognition of systems engineering in society at large.

CHAPTER AWARDS

PRESIDENT'S AWARD FOR OUTSTANDING CHAPTER

- Los Angeles

DIRECTOR'S AWARD FOR MOST IMPROVED CHAPTER

- Chicagoland

GOLD CIRCLE AWARD

- Chesapeake
- Chicagoland
- Hampton Roads Area
- Los Angeles
- Michigan
- Orlando
- South Africa
- Southern Maryland
- Three Rivers
- Washington Metro Area

SILVER CIRCLE AWARD

- Atlanta
- Australia
- Cleveland – Northern Ohio
- North Star
- San Francisco Bay Area
- Singapore

BRONZE CIRCLE AWARD

- Blues
- Central Savannah River Area
- Snake River
- Texas Gulf Coast

FOUNDER AWARD: Pat Hale

PRESIDENT'S AWARD: David Walden

OUTSTANDING SERVICE AWARD:

Mike Celentano	Peter Lister
Andrew Farncombe	Dan Surber

WORKING GROUP AWARDS:



Judith Dahmann accepts the collaboration award from John Thomas, INCOSE President 2012/13, for the system of systems working group.



Quoc Do receives the Sustained Performance award on behalf of the model-based conceptual design working group from John Thomas.

Photos by Andy Pickard

BOARD OF DIRECTORS – 2013

PRESIDENT: John Thomas, ESEP, Booz Allen Hamilton (retired)

PRESIDENT-ELECT: David Wright, Lockheed Martin UK (deceased July 2012)
David Long, Vitech Corporation (December 2012)

SECRETARY: Eileen Arnold, *UTC Aerospace Systems*

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