

A better world through a systems approach

### Recognition & Awards Yearbook





#### Message from the INCOSE President, Marilee Wheaton



INCOSE is a volunteer organization and we like to take the opportunity annually to recognize and celebrate our members, chapters, and working groups who go the extra mile to further the discipline of Systems Engineering, promote INCOSE, and support other members in developing their skills as Systems Engineers. The Recognition and Awards Yearbook spotlights the 2022 award recipients, and includes articles that highlight their stories and achievements.

I hope you read the stories, and if you feel inspired and want to get more involved in INCOSE, please look at our volunteer page (<a href="www.incose.org/volunteer">www.incose.org/volunteer</a>) to find the latest volunteer opportunities, or get in touch with your local chapter. For more information on volunteering at INCOSE, contact us at voadmin@incose.net.

- Marilee Wheaton, INCOSE President

#### This yearbook is sponsored by



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## THE FELLOWS AWARD

INCOSE Fellows are individuals with significant verifiable contributions to the art and practice of Systems Engineering in industry, government or academia. This award recognizes practitioners from government and industry applying knowledge and contributing to the practice of systems engineering in designing and acquiring systems, researchers developing new knowledge, pushing the theory forward, and teachers disseminating knowledge and developing the next generation of successful systems engineers.





Dr. Claude Baron For advancing systems engineering in Europe through innovative research and innovation



Dr. Ariela Sofer For significant contributions to systems engineering education and advancing the recognition of systems engineering in academia



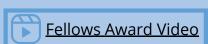
Dr. Jon Holt For leading the implementation and for sustained effort in support of Model-Based Systems Engineering



Dr. Ricardo Valerdi For advancing theory and practice of cost estimation and measurement in systems engineering



Dr. David Rousseau For advancing the theoretical foundations of systems engineering through systems philosophy and systems science research





#### Fellows Awards recognize significant contributions to systems engineering

The Fellows Awards recognize practitioners from government and industry applying knowledge and contributing practice of Systems Engineering. This year, five individuals were lauded for their significant verifiable contributions to the art and practice of systems engineering in industry, government or academia.

Ricardo Valerdi, Ph.D., is one of five new fellows announced by INCOSE for 2022. He is the Interim Department Head of Systems and Industrial Engineering, a Distinguished Outreach Professor, and the Faculty Athletics Representative at the University of Arizona. Valerdi was recognized for advancing theory and practice of cost estimation and measurement in Systems Engineering.

"The Fellows Award means a lot in terms of professional recognition by my peers," Valerdi said. "A lot of people who mentored me are INCOSE fellows, including my own Ph.D. advisor, Dr. Barry Boehm."

David Rousseau, Ph.D., is the Director of the Centre for Systems Philosophy (UK), and a Research Associate in the School of Engineering at Oregon State University. He is a full member of the Omega Alpha Association. He also serves on the Scientific Council of the Bertalanffy Centre for the Study of Systems Science (Austria). Rousseau received the Fellows Award for advancing the theoretical foundations of systems engineering through systems philosophy and systems science research.

**Claude Baron**, Ph.D., is the Vice President of the Board of Studies and a Professor at INSA Toulouse. Baron performs research in systems and software engineering at the LAAS-CNRS lab where she heads the Systems Engineering and Integration team. Baron's Fellows Award was presented for advancing systems engineering in Europe through innovative research and innovation.

"I am humbled and grateful of being named an INCOSE fellow," Baron said. "What I consider my biggest accomplishment is being able to balance my family life and my professional career. For me, family is important, and as a mother of four, I am proud to have succeeded in raising and taking care of my children without mourning my professional career."

Jon Holt, Ph.D., is a professor in the Department of Informatics and Systems Engineering at Cranfield University, the Technical Director of INCOSE UK Chapter, and a Director at Scarecrow Consultants. He was named an INCOSE Fellow for leading the implementation, and for sustained effort in support of Model-based Systems Engineering.

**Ariela Sofer**, D.Sc., is the Interim Divisional Dean of the Volgenau School of Engineering in the College of Engineering and Computing at George Mason University, and the Associate Dean for Administration and Faculty Affairs of the school. She received the Fellows Award for her significant contributions to systems engineering education and advancing the recognition of systems engineering in academia.

"When I look at the INCOSE fellows, I am really so impressed by the caliber," Sofer said. "I feel humbled to be considered among these people who have impacted systems engineering in so many ways."

Sofer advises systems engineers to continuously learn about Systems Engineering through INCOSE. "I enjoy going to INCOSE's meetings and lectures. I am even reading the Vision 2035," she said. "You can read it two or three times and there will still be things that you want to learn about."



## CHAPTER AWARDS

Local chapters play an essential role in the achievement of INCOSE's goals and objectives. Far more than local administrative units, chapters are performing units that organize a multitude of professional and social programs, conduct membership recruitment and retention drives, support technical activities striving to advance the state and art of systems engineering, and market INCOSE as the international authoritative body on systems engineering. Through the annual chapter awards program, INCOSE has the opportunity to recognize the valuable contributions of individual INCOSE chapters as they strive to enrich, educate, and enlighten the INCOSE membership, while improving recognition of INCOSE and the systems engineering profession.

To best encourage and incentivize activities at the local level, a chapter awards program should acknowledge all contributions worthy of recognition. As such, the annual awards program includes the Platinum Circle, Gold Circle, Silver Circle, and Bronze Circle awards to recognize all chapters that meet and exceed INCOSE's standards for local service and contributions. To acknowledge the special effort required to significantly improve an INCOSE chapter, the awards program establishes the Director's Award for Most Improved Chapter. Finally, to provide meaningful recognition of chapter excellence, INCOSE presents annually the President's Award for Outstanding Chapter.

The goals of this program are to:

- Recognize achievements at the chapter level;
- Clarify and incentivize desired activities and behavior at the chapter level;
- Improve sharing of good and best practices between chapters; and,
- Encourage effort and innovation in serving INCOSE members at the local level.

All awards are administered by the Chapters Committee and awarded annually. The awards recognize chapter performance on a calendar year basis (January-December).







Great Plains, Heartland, Midwest Gateway, Three Rivers







**SILVER** 

**AWARD** 



Finger Lakes, Huntsville, India, Michigan, North Texas, Seattle Metro, Southern Maryland, Spain, Washington Metro























Chicagoland, Cleveland/Northern Ohio, Israel, Italy, Los Angeles, New England

















Chesapeake, San Diego





Outstanding Chapter: Israel







Most improved Chapter: New England







#### **Platinum Chapter Circle Award Winners Reveal Secret to Success**

Words By Beth E. Concepción

One of the highlights of the 32nd Annual INCOSE International Symposium was the reveal of the Chapter Awards. These awards recognize chapter efforts and extraordinary achievements.

In addition to recognizing outstanding chapters, the goals of the program are to clarify and incentivize desired activities and behavior at the chapter level, improve sharing of good and best practices between chapters, and encourage effort and innovation in serving INCOSE members at the local level.

Two chapters earned the Platinum Award: Chesapeake and San Diego. For Chesapeake, it marked the seventh year in a row of earning the award. "We are motivated to continue the streak for each year!" said David Flanigan, Chesapeake Chapter President. "This is a team effort that takes not only the entire chapter Board of Directors, but also chapter members. We have a good mentoring program with the presidents in order to have the president-elect perform the duties of record keeping for the chapter awards, so he/she knows what to expect and focus on for the next year."

San Diego Chapter President, John Thomas, echoed that pathway to success: "Our chapter's achievement of this prestigious award is testament to our constant and continued involvement with our members, ranging from monthly presentations, socials, and happy hours," he said. "We thoroughly and meticulously track Chapter Award points achieved over the year through San Diego-hosted events, conferences, and academic and corporate outreach initiatives."

Both chapters intend to use their success to benefit current and new members.

"The San Diego Chapter will capitalize on our success by increasing our engagement with our members, providing lessons learned and best practices to support other chapters in the Greater Western States Region, and providing even more new and fun ways to come together as a Chapter to include engaging presentations, monthly networking happy hours, tutorials and workshops,"Thomas said.

"We hope to use this success to reach out to additional members in the chapter to get them involved and bring in new ideas and energy!" Flanigan said.





"The Chicagoland Chapter's ability to earn Gold circle awards can be attributed to a dedicated Board and great chapter members who serve the systems engineering community. The Chicagoland Chapter is capitalizing on its success with innovative new programming, such as forming teams for hands-on systems engineering tutorials that benefit Chicagoland members."



- John Bayless, Chicagoland Chapter President



"Our chapter held a series of book club discussions [about "Critical Systems Thinking and the Management of Complexity" by Michael C. Jackson] for our chapter members followed by two meetings with the author. I believe this book club approach was the innovative boost we needed as a chapter, and engaged members in a new way. We plan to continue with this type of discussion format meetings. With COVID particularly, I believe people are tiring of being 'talked at' via speakers, presentations and training. People want to talk and interact."

- Tim Schuler, Cleveland Chapter President

"The Los Angeles Chapter has become known for scheduling relevant, knowledge-based monthly speaker meetings and quarterly tutorials. Our speakers are experts in their fields and experienced in presenting to large groups. [We plan to] leverage the award as a benefit of INCOSE membership and to promote the systems engineering profession."



Dorothy Benveniste, Los Angeles Chapter President







"We are honored to be one of the few INCOSE Chapters in the World to have achieved the Gold level for the activities carried out in 2021. I want to thank all the members of the AISE 2021 Board of Directors, my Vice President David Ward, all the individual and corporate members of AISE for making it possible to achieve such a milestone. It is a recognition for the entire Italian Systems Engineering community and testifies that the time is now ripe to start a process of deep transformation of our Country that passes through the exploitation, in the various production areas and with different production scales (from large companies to SMEs), of methods, techniques, tools, but above all, of the Systems Engineering mindset. Per aspera ad astra!"



- Alfredo Garro, AISE Past President, INCOSE Chapter "Italia"



"The staff and the board of directors contribute great ideas to make the chapter better and are critical in achieving them. We actively seek input from our members so that we are giving them the most value for their membership. We will also look for continuous improvement in our activities and use surveys, etc., to ensure we are delivering what our membership both needs and wants from their INCOSE experience."

- Eric Dano, New England Past President



## PIONEER AWARD

The Pioneer Award is presented annually to one distinguished individual or team, who by their achievements in the engineering of systems, has contributed uniquely to major products or outcomes enhancing society or its needs. The criteria may apply to a single outstanding outcome or a lifetime of significant achievements in effecting successful systems.

The Pioneer Award recognizes outstanding pioneer-applications of Systems Engineering in the development of successful products or services of benefit to society. Examples include applying systems engineering principles to unique, highly complex problems; the successful application of systems engineering to brand new market segments and outstanding examples of advancing the state of the art and /or practice of systems engineering beyond its current bounds.



#### **Professor Michael C. Jackson**

Awarded for the development of the foundations of systems engineering as author, educator and intellectual leader in systems thinking. He has been an international ambassador helping to establish systems thinking curricula in multiple universities in Asia, the Americas, and Europe.





#### **Jackson Wins INCOSE Pioneer Award**

Words By Allison Brooks



University of Hull (UK) Emeritus Professor Michael C. Jackson is the 2022 recipient of the INCOSE Pioneer Award. The award recognizes an individual or a team whose work in systems engineering has contributed to the development of advantageous products or services that contribute to society. Jackson won for his dedication to establishing curricula and developing foundations of systems engineering as an author, educator and ambassador.

"I was delighted to receive the award," Jackson said. "I have long argued that systems engineering needs to enhance the methodology it uses to design complex technical systems."

Jackson said he had long been interested in the connections between entities and how they fit together, which led to his distinguished career as a professor of management systems and eventual Dean of the Business School at the University of Hull.

"INCOSE needs to be the lead organization committed to integrating the variety of systems approaches, tackling different aspects of complexity if it is to realize its potential to contribute to the attainment of the United Nations' Sustainable Development Goals," he said.

Jackson is the editor in chief of Systems Research and Behavioral Science and the managing director of Systems Research Ltd. In 2011, he was awarded an OBE for services to higher education and business, and in 2017, he received the Beale Medal of the U.K. Operational Research Society for a lifelong contribution to the philosophy, theory, and methodology of operational research.







## FOUNDER'S AWARD

The Founder's Award is a highly prestigious award presented annually to one distinguished member of INCOSE who has made a major contribution to INCOSE. The award recognizes outstanding individual contributions to INCOSE, be they a single event or a lifetime of significant efforts. These contributions are of a highly significant nature and contribute positively to the advancement of INCOSE or an INCOSE Chapter. Examples of such contributions include extending INCOSE's international growth, developing new Chapters, significantly advancing INCOSE's professional status and making significant personal commitments to INCOSE such as long-term service in a leadership role.



#### **David Walden, ESEP**

Awarded for almost 20 years of sustained service as a North Star chapter leader, as a member of the leadership team in regional and international symposia, as a member and chair of the Corporate Advisory Board, as co-editor and lead editor of the SE Handbook, and as INCOSE liaison to ISO SC7 working groups.





#### INCOSE Founder's Award Winner David Walden reflects on his career

Words By Chase S. Wilkinson

With a stunning 28-year career with INCOSE, it's no wonder that recent Founder Award Winner David Walden has amassed quite the enviable résumé. Walden has worn many titles over his tenure, but a commitment to individualized client and employee care has been his true hallmark to success.

As the founder and first president of INCOSE's North Star Chapter, Walden forged an identity as a versatile leader. He's spearheaded committees for events such as the 2000 INCOSE International Symposium and the Great Lakes Regional Conference. He has also served as chair for INCOSE's Corporate Advisory Board and served on the Board of Directors.

"Systems engineering is a team sport," he said during his acceptance speech.

Over the years, Walden has served as a standard bearer for the company. He has racked up an impressive 100 papers and presentations during his career, as well as running 30 tutorials at various INCOSE events.

He's written the book on how to operate and succeed. Literally. Serving as an editor of the SE Handbook since version 3.2, he continues to lead the charge as Editor-in-Chief of the Fifth Edition.

Always looking forward, Walden has focused on "back to basics" presentations and tutorials, making sure that everyone within INCOSE can engage in meaningful ways.

"We were all new to systems engineering at some point," he said as encouragement.

Walden wants those in his field to get involved and always give their absolute best. "Those are the keys to a long and fruitful career", he said. He should know.



## SYSTEMS ENGINEERING INFLUENCER AWARD

INCOSE recognizes efforts and achievements of a person(s) who has been instrumental in influencing the acceptance, adoption, and implementation of systems engineering. They have had a significant effect on influencing decision-makers, markets, industries, and/or cultures to recognize the value of systems engineering and adopt or significantly increase the usage of systems engineering.



**Kevin Weinstein, CSEP** 

Awarded for his leadership in promoting the business value of systems engineering throughout Booz Allen Hamilton by promoting INCOSE certifications for staff, and inserting digital engineering practices in large, billion-dollar programs.



Systems Engineering Influencer Award Video





#### Weinstein forges an unusual path filled with humor and improvisation

Words By Beth E. Concepción

An engineer walks into an improv class. That's not a joke setup: That's reality for Kevin Weinstein, chief engineer at Booz Allen Hamilton.

"I started taking improv to try to improve my communication skills," Weinstein said.

He actually became a teaching assistant. "I was teaching improv classes as an engineer, which is kind of bonkers if you think about it," he said.

It's not the only unusual step Weinstein has taken in his life. He chose his undergraduate university chiefly because it had the only student chapter of INCOSE. However, Weinstein is a third-generation systems engineer.

He earned a B.S. in Systems Engineering at the University of Virginia and M.S. at the University of Southern California in Systems Architecture and Engineering.

Weinstein served many roles in the Washington Metro Area chapter of INCOSE, including President then Membership Chair. His efforts led to the chapter earning the INCOSE President's Award for Best Chapter in 2016.

His most recent accomplishment is earning the Systems Engineering Influencer Award at the 32nd Annual INCOSE International Symposium for his leadership in promoting the business value of systems engineering. He also earned five Intellectual Contribution Awards in the Stanford LEAD program – a program he joined in Spring 2021. He earned the highest honor in the cohort, which consists of 534 people from 65 countries.

Weinstein joined the program so that he could better help people adopt model-based systems engineering in their daily work. "The program really helped me understand a lot of things: the logic that people use to make decisions versus the logic that people use to justify decisions because it's different," he said.

One of the courses in the program was a humor in business course -- a natural next step from improv. "I could see expanding on this within INCOSE," he said. "A definition of innovation that I really like is 'innovation = invention + adoption.' Hard skills yield invention but soft skills yield adoption. You really need both on the team to innovate."

Weinstein is a lifelong learner. In his estimation, he's chosen the best field for that. "If you aren't energized by learning, systems engineering probably isn't the place for you," he said.



### SYSTEMS ENGINEERING JOURNAL OUTSTANDING PAPER

Avner Engel, Amit Teller, Yoram Reich, Shalom Shachar

"Robust design under cumulative damage due to dynamic failure **mechanisms"** Vol 24. Issue 1, 2021, pp. 322-338

The paper was judged to have made an Outstanding Contribution to Systems Engineering Theory, Practice, and/or Perspectives



Avner Engel



Best Journal Paper for 2021 Video

### SYSTEMS ENGINEERING JOURNAL REVIEWER OF THE YEAR

#### Dr. Alejandro Salado

#### The University of Arizona

Salado is judged to have made an Oustanding Contribution to Systems Engineering for an outstanding effort in terms of both quantity and quality for peer reviewing manuscripts for the journal Systems Engineering



Journal Reviewer of the Year for 2021 Video



Dr. Alejandro Salado





Awards for outstanding service are presented to recognize INCOSE members who have contributed significant volunteer effort on behalf of INCOSE.

#### Vincent Chapurlat

For successful management of the AFIS Academic-Industry Forum and the RobFIS competition in 2020 and 2021 in full virtual mode as well as the AFIS Engineering School in March 2022





#### Marcel Van de Ven

For outreach to the non-Systems Engineering community, maintaining several leadership roles in several working groups, and leading your company in the growth of systems engineering practices that allow the firm to reduce risks in complex and complicated projects in the Netherlands

#### **Paul Kostek**

For the promotion of Systems Engineering, knowledge, leadership, and events in the Seattle Metro Chapter and exceptional leadership roles in the Western States Regional Conference (WSRC), including as Sponsorships and Exhibits Chairman from 2018 through 2022





Outstanding Service Awards Video





#### Heather Feli

For unrelenting dedication and transformative leadership in supporting and empowering women leaders to author and publish their important works in a complilation of chapters addressing emerging trends in the systems engineering leadership





#### **ABET team**

For years of long sustained effort resulting in the successful development, recognition, and implementation of ABET program criteria for Systems Engineering

#### **SE Vision Team**

For directing, managing, developing and publishing the SE Vision 2035, which broadens, aligns, and promotes Systems Engineering as envisaged in the future







#### **TLI Founding Coaches**

For creating the INCOSE Institute for Technical Leadership enabling INCOSE members to improve their leadership skills in a collaborative learning environment









### Outstanding Service Awards Recognize INCOSE Leaders

Words By Allison Brooks

Every year, INCOSE recognizes individuals who have put forth a tremendous effort by sharing their time, expertise or knowledge of systems engineering. In 2022, INCOSE reviewed applications for 10 separate awards, one of them being the prestigious Outstanding Service Award. INCOSE is proud to share that it inducted 30 volunteers into its Outstanding Service Award's Hall of Leaders for their eagerness to support INCOSE and help advance the practice of systems engineering: Vincent Chapurlat, Heather Feli, Paul Kostek, Marcel van de Ven, the ABET Team, SE Vision Team and TLI Founding Coaches.

In order to be nominated for the Outstanding Service Award, individuals have to have belonged to INCOSE for a minimum of five years. Nominees must be dedicated volunteers who strive to implement INCOSE's work in one of three areas, at the very minimum. INCOSE considers nominees who serve in an elected office or as a leader of a task force or advisory group, whether it be at the international, national, or local level; individuals who lead an international editorial, publication or symposium; or those who liaise with other professional, scientific or humanitarian organizations on an international level.

After the nominees are submitted, "The President-elect and the Honors and Awards committee review the awards against the criteria and then decide to award the nominee or not," said Christine Kowalski, INCOSE's operations manager. "Once they finalize their decisions, they present the outcome to the Board of Directors for approval."

To learn more about the 30 Outstanding Service Award winners, whose achievements range from everything concerning risk management to securing ABET accreditation in systems engineering, please visit this page.





## WORKING GROUP AWARDS

Awards are presented to recognize INCOSE Working Groups who have contributed significant volunteer effort on behalf of INCOSE.

### COLLABORATION AWARD



The Collaboration Award is presented to the leadership of the Working Groups that have demonstrated the most exemplary collaboration in working with other Working Groups and/or other INCOSE stakeholders.

#### **Program Management - Systems Engineering** (PM-SE) Integration Working Group



John Lomax Co-Chair



Jean-Claude Roussel Co-Chair



Tina Srivastava Co-Chair

The PM-SE Integration Working Group was formed in 2016. In these past 5 years, the WG has developed into a strong and influential group with key strategic collaborations within and outside INCOSE. Over this past year, the WG co-chairs worked closely with SE Handbook and Working Group leaders coordinating over a dozen expert WG members that contributed to multiple sections of the SE Handbook. Presentations have also been made to multiple chapters around the world where they solicited new members, compared the SEH and PMBoK, and promoted the importance of Product Breakdown Structures. Outside of INCOSE, the PM-SE WG continues to work in close collaboration with PMI in the continuity of the PMI-INCOSE Alliance to establish strong foundations for integrating PM and SE disciplines.



### OUTREACH AWARD



Outreach Award is presented to the Working Group, or combination of Working Groups, that has made the most significant contribution to the development of INCOSE in a non-aerospace/defence domain, and/or outside of the USA.

#### **Human Systems Integration Working Group**



**Guy-Andre Boy** Co-Chair



**Grace Kennedy** Co-Chair

The Human Systems Integration (HSI) Working Group has shown an increase of membership and activities across various INCOSE events (IW, IS, EMEA) and in the recurrent HSI conference series organized with other parties such as ACM, IEA, and AAE\*. WG Chair Guy-Andre Boy additionally serves as the Outreach Ambassador for the EMEA sector and the INCOSE Outreach Relationship Manager for the International Ergonomics Association. Through these alliances, conferences, workshops, webinars, and keynotes, more than 3500 professionals from over 24 countries were involved through the HSI WG this past year, expanding the global reach and further development of INCOSE expertise and influence.





### ACHIEVING THE SYSTEMS ENGINEERING VISION AWARD



Achieving the Systems Engineering Vision Award is presented to the Working Group that has made the most significant contribution toward achieving the Systems Engineering Vision.

#### **Systems and Software Interfaces Working Group**



Jeannine Siviy Chair



Sarah Sheard **Founding Chair** 

The Systems Engineering Vision 2025 calls for a systems engineering future that is broad in its reach: any system may benefit from sophisticated model-based understanding and decision-making, from inception to retirement. Realities of software and data are threaded throughout the Vision. Sarah Sheard founded the SaSIWG to ensure that we interface well with software, in all relevant dimensions, as it is critical to our future success. Over the past 16 months this group has led active monthly discussions, created an internal awareness video about the WG, hosted two book clubs, received a Best Paper Award, and published a special themed issue of INSIGHT, reflecting foundational work and perspectives on business, organizational, process, and technical dimensions of systems and software interfaces. The Systems and Software Interfaces Working Group has significantly contributed to achieving the Systems Engineering Vision and continues to do so in their planned goals for the coming year.

### SUSTAINED PERFORMANCE AWARD



Sustained Performance award is presented to an individual Working Group that has provided exemplary value to INCOSE stakeholders over a multi-year period.

#### **Infrastructure Working Group (IWG)**



Laura Uden Chair



Marcel Van de Ven Chair



Alain Kouassi Chair

The Infrastructure Working Group (IWG) was formed in 2005 and has regularly established and met goals for collaboration and product development. All these efforts have involved multiple Infrastructure members collaborating on the development and review of guides, handbooks, leaflets, presentations, and models spanning more than a decade of delivered value. The Guide for the Application of Systems Engineering in Large Infrastructure Projects (Version 1, June 2012) was well received with an updated version to be completed in 2022 as an Appendix to the Systems Engineering Handbook, Version 5. In addition to INCOSE products, collaboration and outreach efforts have been sustained through external organizations such as NETLIPSE and internal Working Groups (Smart Cities, Architecture, Transportation, Telecom, and Critical Infrastructure).





### PRODUCT OF THE YEAR AWARD



Product of the Year award is presented to the Working Group that, either independently or working in collaboration with other Working Groups and/or other INCOSE stakeholders, has developed and published the product which is considered to provide the most significant value to INCOSE's stakeholders.

#### **Systems Engineering Tools Database Working Group**



John Nallon Co-Chair



Stephane LaCrampe Co-Chair



Robert Halligan Co-Chair



Rene King Co-Chair

The INCOSE SETDB Working Group, in partnership with Project Performance International (PPI) under a Memorandum of Understanding, developed and published the "INCOSE/PPI Systems Engineering Tools Database (SETDB)" to provide our stakeholders with current information regarding systems engineering software tools and cloud services. The SETDB provides the systems engineering community with a reliable source of information about software tools they are using or wish to use while executing their business processes throughout a product lifecycle. The SETDB Working Group applied systems engineering and good project management to great effect, and subsequently delivered a product and service of high quality and high value to INCOSE's stakeholders.













## ISEF AWARDS

INCOSE has participated in the International Science and Engineering Fair (ISEF) as a Special Award Organization since 2009, to provide awareness of systems engineering for very talented high school students all over the globe. Our awards include a first and second place for the INCOSE Best Use of Systems Engineering, and a new award donated by the INCOSE Foundation, the INCOSE Foundation Bill Ewald Award.





#### **Tiffani Rai Gay Best Use of Systems Engineering Award**

Designing a LiDAR Topographic Navigation System: A Novel Approach To Aid the Visually Impaired



#### **Anthony Matteo Saturnino** 2nd Place Best Use of Systems **Engineering Award**

Detecting Cracks in Concrete Structures Using a Deep Learning Wall-Climbing Robot



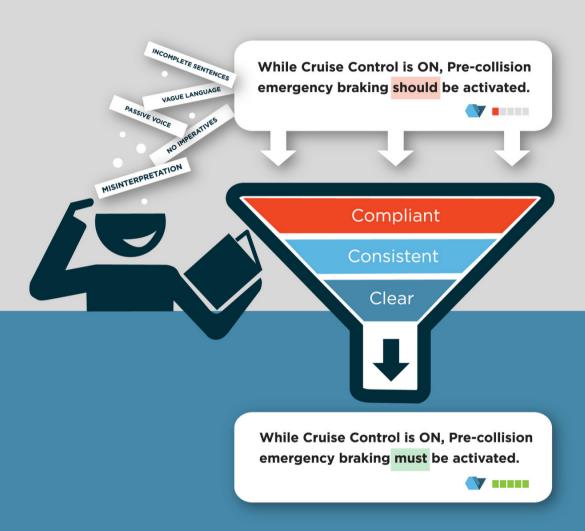
#### **Okezue Alexander Bell Bill Ewald Award**

A Novel Robust and Low-Cost Anthropomorphic Myoprosthesis: Utilizing an Articulated Soft Robotic System and Convolution Kernel Compensation-Based Non-Invasive EMG Decoding for Bionic Restoration of Upper Limb Function to Amputees



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#### A better world through a systems approach

# Congratulations

Claude Baron

Ion Holt

David Rousseau

Ariela Sofer

Ricardo Valerdi

Michael C. Jackson

David Walden

Kevin Weinstein

Avner Engel

Amit Teller

Shalom Shachar

Yoram Reich

Alejandro Salado

Vincent Chapurlat

Marcel van de Ven

Paul Kostek

Heather Feli

ABET team

SE Vision Team

TLI Founding Coaches

Anthony Matto Saturnino

Okezue Alexander Bell

Tiffany Rai Gay

**Great Plains Chapter** 

**Heartland Chapter** 

Midwest Gateway Chapter

Three Rivers Chapter

Finger Lakes Chapter

Huntsville Chapter

India Chapter

Michigan Chapter

North Texas Chapter

Seattle Metro Chapter

Southern Maryland Chapter

Spain Chapter

Washington Metro Chapter

Chicagoland Chapter

Cleveland/Northern Ohio Chapter

Israel Chapter

Italy Chapter

Los Angeles Chapter

New England Chapter

Chesapeake Chapter

San Diego Chapter

Program Management -

Systems Engineering Integration WG

Human Systems Integration WG

Systems and Software Interfaces WG

Infrastructure WG

Systems Engineering Tools Database WG

