IEEE TEMS
Technology & Engineering Management Society

TEMSCON 2019

Leading Innovation in Times of Constant Change

2019 International Conference of the IEEE Technology and Engineering Management Society

June 11-14, 2019

GTRI Conference Center

Atlanta, Georgia (USA)

CONTENTS

Welcome from the Chair

TEMSCON 2019 is the flagship conference of the IEEE Technology and Engineering Management Society (TEMS). This Annual Conference provides studies on concepts, theories, and best practices in the field of technology and engineering management and addresses the methodologies required to move technical ideas to market and where people enable project success.

TEMS focuses on developing leadership skills in the technical industries and associated research and offering you opportunities to develop skills and competencies by collaborating with leading practitioners and scholars where:

- Your on-the-job results drive both personal growth and professional advancement
- Your expertise enables the implementation of successful products and services

TEMS offers conferences, publications, along with many other opportunities to engage. TEMS will continue building programs that allow leaders and researchers to understand and improve the space of technical management.

The theme of this year's conference is "**Leading Innovation in Times of Constant Change,**" bridging the space of technology management and practices to the needs of industry and society; coupling management research with industry and society needs.

Join our Technical Activity Committees (TACs) or start one based on your management preferences by contacting any of the TEMS leadership. TACs are open to members and non-members. TAC members help design, run, and build our conferences and publications. TACs also provide the leadership pipeline for the Society, or join any of our Chapters in the local Regions and Sections, or start one yourself.

TEMS offers three publications: LEADER informs you of TEMS activities; The Engineering Management Review (EMR), a "journal of practice;" and the Transactions on Engineering Management, providing forward thinking papers and the latest engineering and technology management research.

Enjoy TEMSCON 2019 and engage in TEMS activities for your benefit as our Society grows to meet its key goal of building technical leadership though understanding of business and management. If you are not already a TEMS member, I would encourage you to sign up. A membership table is available during the conference where you can ask questions and become a member.

For this event I wish to particularly acknowledge the exceptional work of the program co-chairs, Prof. Tugrul Daim and Dr. Jason Hui, the Industry Forum Chair Andy Chen, the treasurer Dr. Bill Marshall, the local arrangements chair John Balsam, the publications chair, Ed Perkins, our exceptional keynote speakers, as well as the technical program committee members, the other organizing committee members and the IEEE Atlanta Section. Finally, I would like to acknowledge the support and generosity of our host GTRI.

David Bishop
Conference Chairman of TEMSCON 2019,
CEO and Founder of Agile Worx, LLC
Founding chair, Atlanta Chapter, IEEE Technology and Engineering Management Society.

Welcome from the Program Co-Chairs

Welcome to the IEEE TEMSCON 2019 technical program. We have a great program for technology and engineering management leaders from industry, academia and government representing many different countries.

The theme of this year's conference is "**Leading Innovation in Times of Constant Change.**" Advancing technological innovation should not be singled out as technical development only. We also need to think about economic, political and environmental perspectives and their impacts in different settings. Research in technology and engineering management today focuses on identifying the dynamics of these perspectives, which aids us in making more informed decisions.

Emerging technologies such as autonomous driving or blockchain, developments in space travel and artificial intelligence change the way we live our lives or do business. It is critical to understand how this change happens so that we can leverage this development and lead innovation in these times of change.

Presentations in the paper sessions will explore the above themes. These sessions include cutting-edge research in areas like engineering management, technology management, innovation management and project management.

Some of the research focuses on methods such as DevOps, hype cycle and technology mining. Others explore sectors impacted by recent developments including the space program, cybersecurity and automotive. Important trends such as green innovation, big data and blockchain are studied as well.

We thank all the authors and reviewers who made this conference possible.

Your TEMSCON 2019 Program Co-Chairs,

Tugrul U. Daim, Ph.D. and PICMET Fellow
Professor and Director, Technology Management Doctoral Program
Dept of Engineering and Technology Management
Maseeh College of Engineering and Computer Science
Portland State University
Editor in Chief, IEEE Transactions on Engineering Management

Jason K. Hui, Ph.D., PMP
Senior Staff Project Engineering Manager
Elbit Systems of America
Associate Editor, IEEE Engineering Management Review


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- David Bishop, Conference Chair
- Bill Marshall, Conference Vice Chair, Treasurer and Registration Chair
- Jason Hui, Program Co-Chair
- Tugrul Daim, Program Co-Chair
- Andy Chen, Industry Forum Chair
- Ed Perkins, Publications Chair
- John Balsam, Local Arrangements Chair
- Cyndi Garvan, Sponsorship Chair
- Mike Andrews, TEMS AdCom Representative
- Annaswamy Ravikiran, TEMS VP - Membership, Marketing, & Communications
- Robert Bierwolf, VP Conferences IEEE TEMS

Dr. David A. Bishop

Conference Chair

Dr. David A. Bishop is a technologist, consultant, researcher, entrepreneur, and instructor with over 25 years of experience in telecommunications, transportation, airline, government, and utility industries. David holds a Bachelor of Computer Engineering degree from the Georgia Institute of Technology, an MBA with a concentration in IT management, and a Doctorate in Business Administration from Georgia State University. He is an inventor of several U.S. patents.

David is CEO and Founder of Agile Worx, LLC, (http://www.agile-worx.com) a software development firm that provides program and project management tools and consulting services. He is a member and committee chair for the International Electrotechnical Commission (IEC) based in Geneva Switzerland, a member of ANSI, and a Senior Member of the IEEE and the Association for Computing Machinery. David is also founding chair for the Atlanta chapter of the Technology and Engineering Management Society.

Dr. Bill Marshall

Conference Vice Chair, Treasurer and Registration Chair

Dr. Bill Marshall is formerly a Senior Research Engineer at the Georgia Tech Research Institute (GTRI), where he has worked throughout his career. His various fields of research have included sensors and networked systems, cyber security, data analytics, and modeling & simulation. His past IEEE activities have included being treasurer and chair of the Atlanta Section, general co-chair of SoutheastCon, and several ad hoc committees for IEEE's Region 3. He is also a past chair of what was known then as the Engineering Management Society Chapter in Atlanta.

Dr. Tugrul U Daim

Program Co-Chair

Tugrul U Daim is a Professor and the Director of the Technology Management Doctoral Program in the Maseeh College of Engineering and Computer Science at Portland State University. He is also the Director of the Research Group on Infrastructure and Technology Management. He is a Faculty Fellow at the Institute for Sustainable Solutions.

US Department of Energy, National Science Foundation, National Cooperative Highway Research Program, and many other regional, national and international organizations have funded his research. He has published over 200 refereed papers in journals and conference proceedings. He edited more than 20 special issues in journals. He edited more than 20 books and conference proceedings. He was the adviser for 11 PhD graduates who are now in leading positions in government, industry and academia.

He is the Editor-in-Chief of IEEE Transactions on Engineering Management. He has been at various editorial roles in journals including International Journal of Innovation and Technology Management, Technological Forecasting and Social Change, Technology in Society, Foresight, Journal of Knowledge Economy and International Journal of Innovation and Entrepreneurship.

Prior to joining PSU, he had worked at Intel Corporation for over a decade in varying management roles. At Intel he managed product and technology development. During his tenure at PSU, he has acted as a Strategic Consultant to the Chief Technology Innovation Officer of Bonneville Power Administration a part of US Department of Energy. He helped develop regional and national technology roadmaps in the energy sector. He is a member of the R&D Advisory Board for TUPRAS, the largest industrial firm in Turkey. He also consulted to many other international, national and regional organizations including Elsevier, Biotronik, NEEA, Energy Trust of Oregon, EPRI, ETRI, Koc Holding, Arcelik, Tofas, Ford Otosan, Kirlangic, Siemens, Mark and Spencer, and Castrol.

He is also a visiting professor with the Northern Institute of Technology at Technical University of Hamburg, Harburg. He has given keynotes and distinguished speaker lectures at conferences, companies, universities and research centers around the world including Iamot, Euromot, Samsung, Helmut Schmidt University, Kuhne Logistics University, Seoul National University, Bogazici University, Koc University, University of Gaziantep, Izmir Institute of Technology, University of Pretoria, Tampere University of Technology, STEPI, EPIC at UNCC.

He was given the Research Publication Award by the International Association of Management of Technology (IAMOT) and Fellow Award by the Portland International Center for Management of Engineering and Technology (PICMET) both in 2014.

Dr. Daim was the President of Omega Rho, International Honor Society in Operations Research and Management Science between the years of 2014 and 2016.

He received his BS in Mechanical Engineering from Bogazici University in Turkey, MS in Mechanical Engineering from Lehigh University in Pennsylvania, MS in Engineering Management from Portland State University, and PhD in Systems Science: Engineering Management from Portland State University in Portland Oregon.

Dr. Jason K. Hui

Program Co-Chair

Dr. Jason K. Hui, PMP, is a Senior Staff Project Engineering Manager at Elbit Systems of America in Merrimack, New Hampshire. His specialties are systems engineering and technical management. Dr. Hui has been involved in the defense and aerospace industry for over 16 years, previously as Senior Principal Systems Engineer at BAE Systems, Senior Member Technical Staff at The Charles Stark Draper Laboratory, and Senior Member of the Technical Staff at The Aerospace Corporation. He received the B.S. and M.S. degrees in Electrical Engineering in 1997 and 1998 and the Ph.D. degree in Mechanical Engineering in 2002, all from UCLA, and the M.S. degree in Systems Engineering at The Johns Hopkins University in 2012. Dr. Hui is an IEEE Senior Member and an Associate Editor of the IEEE Engineering Management Review.

Andy Chen

Industry Forum Chair

Andy Chen is the President & CEO of Catronic Enterprise a global consulting firm. The firm's principle business is to provide consulting services for utility industry worldwide. Andy is a senior business advisor for several leading global consulting firms and enterprise software vendors. Andy held the position of the Chief Technology Officer and Vice President, Enterprise Strategy and Architecture of the largest Canadian-based electricity generator.

Andy is a partner of REDDS Venture Investment partners which empower disruptive start-ups that scale worldwide and have billion dollars plus potential through team building, global business development, financing, mentoring, and strategy.

Andy is the President 2020-2021, IEEE Technology and Engineering Management Society (TEMS) a member of Board of Governors 2019/2020 for IEEE Computer Society (CS). He participates in the United Nations Global Pulse's Data Privacy Advisory Group. He is also a director for the Federation of Enterprise Architecture Professional Organizations' board and a member of the Technical Advisory Council for the FinTech Ideas Festival. He also served as the Chair of the Technical Advisory Council for YinTech Investment Holding Ltd. As an internationally recognized speaker, Andy was a keynote speaker at the UN ITU Telecom World and AI for Good Global Summit, the World Computer Congress, the World CIO Forum, and the Digital Africa Conference.

Program Chairs

- Tugrul Daim, Program Co-Chair, Portland State University, USA
- Jason Hui, Program Co-Chair, Elbit Systems of America, USA

Session Chairs

- Leon Pretorius, University of Pretoria, South Africa
- Holly Handley, Old Dominion University, USA
- Joseph Sarkis, Worcester Polytechnic Institute, USA
- Jason Hui, Elbit Systems of America, USA
- Marina Dabic, Nottingham Trent University, United Kingdom
- Joe Amadi-Echendu, University of Pretoria, South Africa
- Yuan Zhou, Tsinghua University, P.R. China
- Richard David Evans (Brunel University London, United Kingdom)
- Brendan Galbraith (Zayed University, UAE)
- Robert Bierwolf, MBBI bv, Netherlands
- Ravikiran Annaswamy (Technology and Management Consultant, India)
- Rabiz Foda, IEEE TEMS, Canada
- Xiaohong (Iris) Quan, San Jose State University, USA
- Eduardo Ahumada-Tello (Universidad Autónoma de Baja California, Mexico)
- Tugrul Daim, Portland State University, USA

Tuesday – June 11, 2019 TEMSCON Pre-Conference Workshops			
08:00 - 8:30	**Welcome Coffee + Press Conference**		
	119A	**119B**	**119C**
08:30-12:00	**High Tech and Venture Capital – Eliezer Manor** Part I - The history of the Israeli Hi-Tech and VC industries, with practical lessons to be learned and applied.	**Turning Engineering Projects into Successful Businesses– Dr. Aaron Shenhar** Part I - The Coming Renaissance in Project Management	
12:00-13:00	**Lunch**		
13:00-16:30	**High Tech and Venture Capital – Eliezer Manor** Part II - The first practical step of the hi-tech entrepreneur: The art of expressing an idea.	**Turning Engineering Projects into Successful Businesses– Dr. Aaron Shenhar** Part II - Understanding the Science of Technology and Its Management	**IEEE TEMS AdCom Meeting** **Chair: Michael Condry** (Closed Session - Invitations Only)

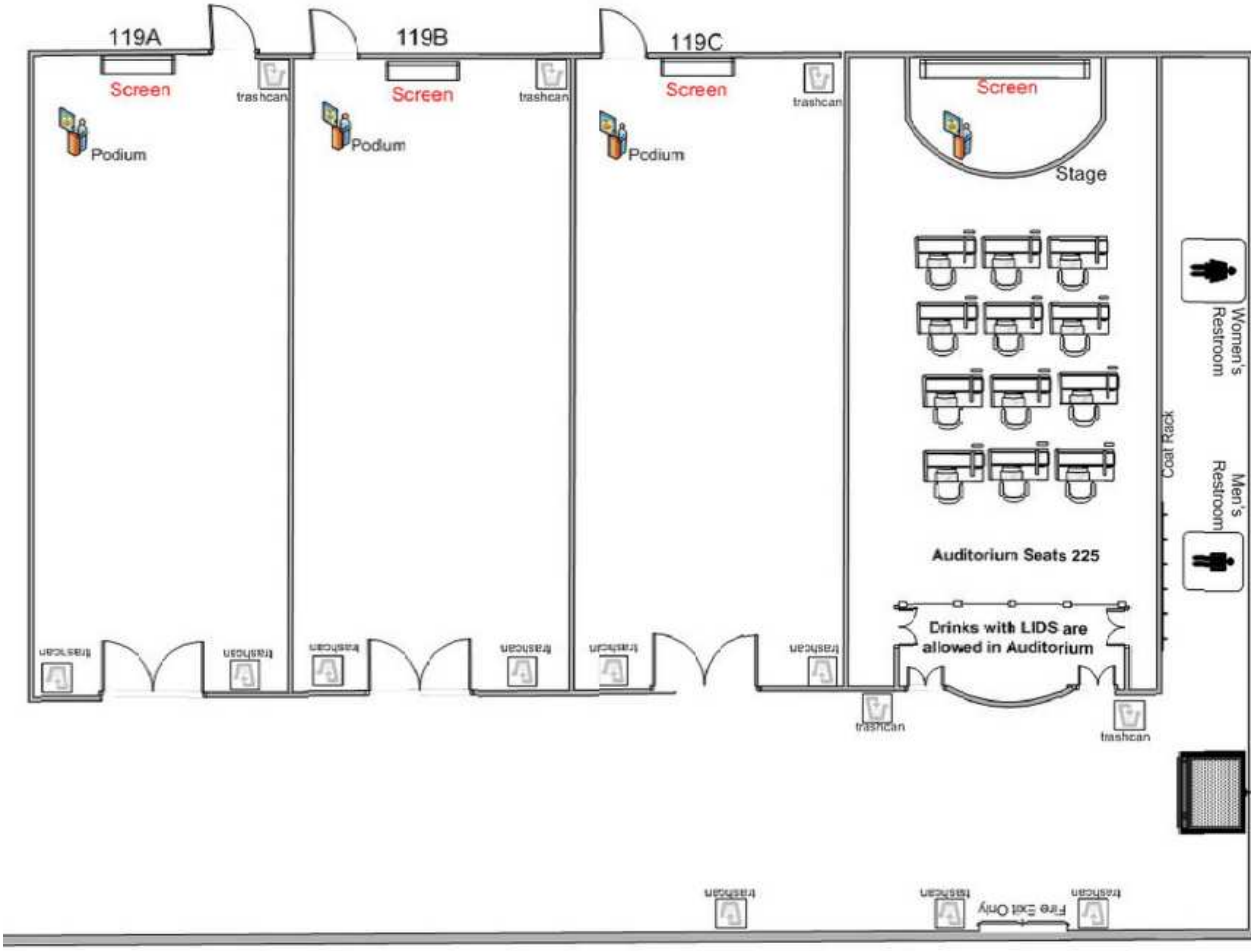
Wednesday, June 12, 2019 TEMSCON Presentations “Leading Innovation in Times of Constant Change”				
08:00 - 08:30	**Welcome Coffee**			
08:30 - 10:00	**Conference Opening** **David Bishop,** Founder and CEO, Agile Worx **Dr. Michael Condry,** President, IEEE Technology and Engineering Management Society **Keynote - Stephen Ibaraki,** Chairman, Managing General Partner, REDDS Capital **Keynote - Dr. Alan Porter**, Director of R&D, Search Technology, Inc **Keynote - John Avery,** Director, Advanced Technology Development Center (ATDC)			
10:00-10:30	**Coffee break**			
	Auditorium	**119A**	**119B**	**119C**
10:30-12:00	**Innovation Management 1** **Session Chair: Leon Pretorius**	**Engineering Management 1** **Session Chair: Holly Handley**	**Technology Management 1** **Session Chair: Joe Sarkis**	**Project Management 1** **Session Chair: Jason Hui**
12:00-14:00	**Lunch**			
14:00-16:00	**Innovation Management 2** **Session Chair: Marina Dabic**	**Engineering Management 2** **Session Chair: Joe-Amadi Echendu**	**Technology Management 2** **Session Chair: Yuan Zhou**	**Entrepreneurship** **Session Chair: Richard Evans**
	Auditorium		**119C**	
16:00-17:30	**Editor’s Panel – Tugrul Daim** Panelists: Distinguished Editors		**Technical Activities Information Session** **Session Chair: Brendan Galbraith**	
19:00	**Conference Reception**			

Thursday – June 13, 2019 Industry Forum "The 4th Industrial Revolution; Life and Enterprise of the Future"	
08:00 - 08:30	**Welcome Coffee**
08:30 -9:30	**Industry Forum Opening – Andy Chen**, President-elect, IEEE Technology and Engineering Management Society **Keynote - Stephen Ibaraki,** Chairman, Managing General Partner, REDDS Capital **Keynote - Chris Hotchkiss,** Vice President, Intel Corp. **Keynote - Anouk Kendall,** President, Decentralised Energy Canada
09:30- 11:00	**AI and Blockchain Decentralized impact in the 4th Industrial Revolution** ● **Toufi Saliba (Moderator),** CEO, PrivacyShell ● Anouk Kendall, President, Decentralised Energy Canada ● Chris Hotchkiss, Vice President, Intel Corp. ● Raju Goteti, Vice President, Co-Innovation Network, Tata Consultancy Services ● Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital ● Ken Huang, CEO of Cyber Security On Toda and Chief Scientist of NUC Chain
11:00-11:30	**Coffee break**
11:30-12:30	**Artificial Intelligence Impact in the 4th Industrial Revolution** ● **Neil Sahota (Moderator),** Chief Innovation Officer, University of California (Emerging Technologies Research & Policy Institute) ● Tina Singh, CEO, Singh Law Corporation ● Joe Herkert, Associate Professor Emeritus of Science, Technology and Society, North Carolina State University ● Jason Borenstein, Director, Graduate Research Ethics Programs, Georgia Tech
12:30-14:00	**Lunch**
14:00-15:30	**Innovation oriented entrepreneurship in all progressive developing economies during the 4th Industrial Revolution** ● **Eliezer Manor (Moderator),** Founder and CEO, Shirat Enterprises, Israel ● Paul Babin, Director, Technology, Innovation and Sustainability (retired) Thyssenkrupp North America ● Lee Stogner, Vincula Group ● Marc Perron, Editor in Chief & Co-Founder, IEEE Industrial Electronics Technology Transfer News ● Susan K. (Kathy) Land, Program Manager, US Department of Defense ● John Avery, Director, Advanced Technology Development Center (ATDC)
15:30-16:00	**Coffee break**
16:00-17:30	**Disruptive Healthcare, Wellbeing, Humanity and Sustainability in the 4th industrial Revolution** ● **Mary Ellen Randall (Moderator),** CEO, Ascot Technologies Inc. ● Michael Condry, Chair of Advisory Board, ClinicAI ● Dr. Pongrapee Buranasompob, Advisor, Mind AI ● Suresh Shenoy, President, WHEELS Global Foundation ● Mark Wehde, Section Head, Technology Development, Division of Engineering, Mayo Clinic ● Joanne Wong, Executive Director, Cancer Computer
19:00	**Conference Banquet & Awards**

Friday – June 14, 2019 TEMSCON 2019 Presentations "Leading Innovation in Times of Constant Change"				
08:00 - 08:30	**Welcome Coffee**			
08:30-10:00	**Joint Session with GTRI Friday Morning Seminar** **Keynote Speaker – Steve Welby**, Executive Director, IEEE			
10:00-10:30	**Coffee break**			
10:30 – 11:00	**TEMSCON Opening – David Bishop,** Founder and CEO, Agile Worx **Keynote Speaker – Steve Welby**, Executive Director, IEEE			
	Auditorium	**119A**	**119B**	**119C**
11:00-12:30		**Technology Management 3 Session Chair: Ravikiran Annaswamy**	**Project Management 2 Session Chair: Robert Bierwolf**	**Special Track Pitch Competition**
12:30-14:00	**Lunch**			
14:00-15:30	**Technology Management 5 Session Chair: Tugrul Daim**	**Technology Management 4 Session Chair: Rabiz Foda**	**Innovation Management 3 Session Chair: Iris Quan**	**Social Issues Session Chair: Eduardo Ahumada-Tello**
15:30-16:00	**Conference Close**			

Georgia Tech Research Institute

GTRI Meeting Rooms



High Tech and Venture Capital
Room 119A

Instructor: Eliezer Manor, Founder and CEO, Shirat Enterprises Israel

Part I - The history of the Israeli Hi-Tech and VC industries, with practical lessons to be learned and applied.

During only a few decades of the 2nd half of the 20th century Israel made a dramatic transition from an agriculture and low-tech based economy to a technology driven economy, being recognized all over the world as the “Start-Up Nation”.

The workshop will include an animated video and interactive discussions with the audience on the lessons to be learned from the Israeli experience and the way these lessons can be adapted in different regions/countries and during our modern times, when the 4th Industrial Revolution is taking place around us.

Part II - The first practical step of the hi-tech entrepreneur: The art of expressing an idea.

The 2nd part of the workshop will deal with the tasks of the first and most important phase of the hi-tech entrepreneur, related to the initiation of an idea, its selection and the way in which it has to be analyzed and presented, in order to convince partners and investors to join.

It will deal with creative imagination, giving birth to an idea for a new product or service, selecting an appropriate idea, preparing the development plan and crystallizing the business model, as well as techniques for presenting the novel idea with: ppt presentation, executive summary, SWOT analysis, and elevator pitch.

Instructor Bio:

Eliezer Manor is a physicist who graduated from the Weizmann Institute of Science in Israel He spent many years with the Israeli Defense Forces and the R&D Department of the Israeli Ministry of Defense in the field of Electro-Optics.

His past and present activities cover the entire "spectrum" and sequence of hi-tech related activities: Hi-Tech Entrepreneurship in Israel and in the US, Angel investments and founder of portfolio companies, Technological Incubation in Israel, Venture Capital in Israel and in the US, Corporate Venture Capital, joint programs with Multi-National Companies, joint programs with the Israeli and foreign governments, Investment Banking and Stock Markets of Hi-Tech/Hi-Growth companies. He is presently a Board Member of private and public companies traded on NASDAQ and on TASE (Tel Aviv Stock Exchange).

SHIRAT ENTERPRISES

These days he is engaged in a broad program with Israeli companies which establishes operations in China for business development, industrialization and commercialization of their products in the Chinese and worldwide markets.

Eliezer is also engaged in venture philanthropy. He and his family established Schools-on-Line Israel, an NGO, active among high-school children and teachers.

Turning Engineering Projects into Successful Businesses

Room 119B

Instructor: Dr. Aaron Shenhar, Professor of Project Management and Leadership, Rutgers University (Ret.) , CEO, Diamond Leadership Institute

Part I - The Coming Renaissance in Project Management

In spite of their critical importance to economic growth and quality of life, most engineering projects are still not meeting their intended goals, with only one in three projects leading to business success and two failing to meet their time and cost goals. Extensive research and hundreds of new tools have not changed these statistics in the last 20 years. It is clear that the project management profession needs a renaissance.

In this workshop I will discuss what's wrong and missing in this critical field. Based on 25 years of research and 20 years of practical lessons, I will show that the problem is NOT in the commonly-used and expensive tools. Rather, it is rooted in a deeper level of misguided perception of what projects are all about. I will present the expected transition from the current Delivery Model to the next Value/Job model and introduce its new elements of strategic thinking, adapting to DNA (of the project), and the spirit of leadership. I will also show how companies can make this transition in practice.

Part II - Understanding the Science of Technology and Its Management

While technology increasingly impacts daily life, economic well-being, and society in general, its fundamental laws and underlying theory have been slowly evolving. Surprisingly, still unavailable, is a widely accepted (and simple) definition of what exactly is technology or technology management, and there is no widely accepted unified theory.

This workshop will present a new perspective on the theory of technology and its management, and discuss the question: can such a theory evolve into a new science of its own - **Technology Science?** Just as computer science has helped us understand the power of computers, this new science would further increase our ability to harness the full potential of any technology, accelerate its development and open up new areas of investigation of technology and specifically, ***technology management***. After discussing technology's common laws of structure, function, value, process, know-how, and evolution, I will present a wide-range of future study options and their implications for management.

Instructor Bio:

Aaron Shenhar, Ph.D., PMP, PMI Fellow, Professor of Project Management and Leadership (Ret.); CEO and Founder, Diamond Leadership Institute, LLC.

Dr. Shenhar is regarded as one of the world's leading experts in technology and project management, innovation, strategy, and leadership. He holds five academic degrees in engineering and management, including three degrees from Stanford University and two from the Technion in Israel.

He was named, "Engineering Manager of the Year," by the Engineering Management Society of IEEE; a recipient of the Project Management Institute (PMI) and the International Project Management Association (IPMA) Research Achievement Awards. Dr. Shenhar is also a PMI Fellow and a Fellow of NASA's Science Council of Project Management Research.

In his first career in business, he managed projects, innovation, R&D, and high-tech businesses for 20 years. As executive at Rafael, Advanced Defense Systems, he served as Corporate Vice President, Human Resources, and later, President of the Electronic Systems Division.

In his second career of over 25 years in academia, he served as tenured professor, working at Stevens Institute of Technology, Rutgers University, University of Minnesota, and Tel-Aviv University. With over 150 publications, 6 books and over 10000 citations, his writings have influenced project and technology management research and education around the world. His best-seller book, "Reinventing Project Management," published by Harvard, was selected among the top best five business books of the year.

He is serving as consultant to major corporations, such as 3M, Honeywell, AT&T, Trane, Dow Jones & Co., U.S. Army, NASA, NSA, Lockheed Martin, Merck, Intel, Amdocs, Tata, and IAI.

2019 IEEE FREDERIK PHILIPS AWARD

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ASAD M. MADNI

For leadership in and pioneering contributions to the development and commercialization of sensors and systems for aerospace and automotive safety

Asad M. Madni's revolutionary contributions to sensors and systems for navigation and stability in aerospace and automotive applications have helped save countless lives around the world. Madni's GyroChip was the first microelectromechanical-based gyroscope and inertial measurement unit for aerospace and automotive safety. The GyroChip and numerous other sensing, actuation, and signal-processing techniques developed by Madni are at the heart of electronic stability control and roll-over prevention systems, lane-change assist, and steering and wheel speed detection prevalent in today's passenger cars. They are also used for pitch stability control systems and yaw dampers in aircraft. His control system for the Hubble Space Telescope has provided unprecedented accuracy and stability for images that have enhanced our understanding of the universe.

An IEEE Life Fellow, Madni is a Distinguished Adjunct Professor/Distinguished Scientist with the University of California, Los Angeles (UCLA) Electrical and Computer Engineering Department and Faculty Fellow with UCLA's Institute of Transportation Studies, Los Angeles, CA, USA.

Wednesday, June 12, 2019

John Avery, Director, Advanced Technology Development Center (ATDC)

Leading Innovation with Rapid Technology Changes

As the slope of technology advancement grows steeper every year how should innovation leaders think about development when the technology landscape is shifting so rapidly. Is it possible to stay ahead of the curve? Is it possible to predict or even make new innovations appear when and where you need them or is it only possible to react when they appear?

John Avery is the Director for the Advanced Technology Development Center (ATDC) operated by Georgia Tech. The ATDC is the state of Georgia's startup incubator that provides entrepreneurial support and business coaching for entrepreneurs across the state. John is a tech startup veteran with four startups and broad experience in data and wireless voice technologies and holds six patents. Prior to ATDC, he was engineering group manager of Panasonic Automotive Systems' Innovation Center. There, he oversaw the innovation center's development projects in next-generation automotive systems including, infotainment, bio-sensing, machine vision, deep learning, and heads-up displays. He is a Georgia Tech graduate with a bachelor's degree in electrical engineering.

Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital

Life and the Enterprise of the Future – Unlimited X Global Revolution from the 5th Machine Age - Part I & Part II

Stephen Ibaraki, founder of the United Nations ITU ACM XPRIZE AI for Good Global Summit and financial industry's Fintech Ideas Festival (both ranked No.1), shares his deep experiences as forward thinking entrepreneur, tech guru, and venture capitalist. In high demand with more than 100 global engagements in 2019, Stephen keynoted at the annual CEO YPO Edge Conference this year (YPO: 27K CEOs, $9 Trillion annual revenue), shared his futurist insights at multiple session at SxSW in March 2019; keynoted at AI Vienna and Kingfomarket 2019 Barcelona in May. Stephen brings a wealth of knowledge and experience to IEEE-TEMSCON as he discusses the future trends as disruptive technologies dominate the world significantly impacting society, research, academia, education, governments, and industry. Stephen will discuss the rapid evolution of disruptive innovations, "Life and the Enterprise of the Future – Unlimited X Global Revolution from the 5th Machine Age: Investments, Challenges, Opportunities and Frontier Digital Transformations." All sectors are at historical global inflections points and changed by this worldwide disruption and especially by AI and growing usage of blockchain. What does this all mean?

Stephen Ibaraki is Chairman, Managing General Partner REDDS Capital; globally unique with concurrent Chairman, Founder, Board roles in: Business/finance, successful serial Entrepreneurship, no.1 computing Science organizations, no. 1 UN innovation, top Industry-organizations/think tanks, no.1 Summits. 100+ global engagements guiding $10+ Trillion in investments.

A sampling of Stephen Ibaraki's 150+ positions/recognitions include: Practitioner Board Association for Computing Machinery current past chair; founding chair Global Industry Council and vice-chair board IP3 International Federation for Information Processing; writer IDG-IT World (Canada) and Forbes; founder technology advisory board, Yintech Investment Holdings Ltd. (NASDAQ); founding member Beyond Initiative (VW/Audi Think Tank); founding chairman outreach UN ITU "ICT Discovery" Journal; founder, program committee, founding chairman outreach UN ITU ACM XPRIZE AI for Good Global Summit; founding member Steering Committee AI Pioneers; vice-chair WHO/ITU Focus Group AI for Health; founding chairman Technology Advisory Council Financial Services Roundtable (now Bank Policy Institute) FinTech Ideas Festival 2017 (2019) (200 CEOs/Execs, FSR: $92.7 trillion assets); founding chair advisory board Digital Africa; board member IEEE Computer Society; 2006-2019 Microsoft Most Valuable Professional Awards; Fellow awards; ... more as CIPS Fellow: http://www.cips.ca/stephen-ibaraki." LinkedIn: http://ca.linkedin.com/in/sibaraki

Alan Porter, Director of R&D, Search Technology, Inc

Indicators of R&D Emergence -- for Better Informed Technology & Engineering Management

Technology management undervalues empirical intelligence. Other domains (e.g., baseball) lean heavily on data-based management. In times of constant change, can we pursue technological innovation more effectively by analyzing big data more aggressively? Yes.

I introduce our efforts to measure R&D emergence – i.e., to identify cutting edge topics within a target domain and the key players pursuing those topics. Such “intel” can inform R&D management, Intellectual Property strategy, and Open Innovation processes.

Alan Porter is Professor Emeritus of Industrial & Systems Engineering, and of Public Policy, at Georgia Tech, where he is Co-director of the Program in Science, Technology & Innovation Policy (STIP). He is also Director of R&D for Search Technology, Inc., Norcross, GA (producers of *VantagePoint* and *Thomson Data Analyzer* software). He is author or co-author of some 240 articles and books, including *Tech Mining* (Wiley, 2005) and *Forecasting and Management of Technology* (Wiley, 2011). He co-founded the International Association for Impact Assessment and later served as president.

Research interests key on “forecasting innovation pathways” for newly emerging technologies. This entails text mining of science, technology & innovation information resources to generate Competitive Technical Intelligence. He currently serves as principal investigator on a U.S. National Science Foundation program to develop “Indicators of Technological Emergence.”

Publications are available at: http://www.researchgate.net/profile/Alan_Porter4.
He can be reached at: Alan.porter@isye.gatech.edu.

Thursday, June 13, 2019

Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital

Loren (Chris) Hotchkiss, Vice President, Data Center Group, General Manager of Platform Execution and Validation, Intel Corporation

Topic: Innovation is the fuel for our world's economy, and a driver for global human progress

Innovation in how you develop new products and solutions for existing or new businesses can lead to a transformation in your R&D development approach. However, innovation doesn't have to always mean new technical inventions. Innovation can reuse an existing method or technique from one domain to solve a complex problem in another domain.

As a leader at Intel, I have encountered such situations several times, where we need to balance new product development from grounds up vs. adapting existing products and processes. There are no easy answers, and this talk will present a real-life example. It happened following a growth of public clouds, and the fact that computing is increasingly moving to remote locations, where users have no direct control on the servers running their jobs. Customers with sensitive workloads needed a method to assure that their remote servers are trustworthy.

This talk will cover how we took an interesting technology from our labs, previously productized in clients, and we brought it to Intel servers in 12 months' time. This rapid adoption was driven with a laser sharp customer focus, resulting in multiple public clouds successfully deploying our new technology for their end-users. We will review this transformation and conclude the talk with general principles to drive similar innovations in other domains too. This will include the culture and mindset changes needed to foster innovations, motivating teams in a company to move fast, adopt new methods for new businesses and markets, and to always keep learning and growing.

Loren (Chris) Hotchkiss is a Vice President in the Data Center Group, and serves as general manager of Platform Execution and Validation at Intel Corporation. He is responsible for the roadmap execution, validation, and system integration of Data Center Platforms. He earned a bachelor's degree in electrical engineering and MBA from Portland State University.

Chris started his journey at Intel in 1991, as a quality and reliability engineer. In the last 28 years at Intel, Chris has held a variety of technical and management roles in technology manufacturing development, semiconductor quality and reliability, phone and tablet client products, smart glasses. He led teams across systems engineering and architecture, and data center platforms. Chris is passionate about motivating teams, and solving customer problems with high quality products. He enjoys spending time at his alma mater Portland State University, where he guest lectures and stays connected to the academic community.

Anouk Kendall, President, Decentralised Energy Canada

Topic: Powering the 21st Century

Ms. Kendall will provide an overview of the trends that are accelerating the uptake of decentralised energy technologies in Canada. Three primary focus topics are electrification, decentralisation and digitalisation.

Anouk Kendall was appointed President of Decentralised Energy Canada (DEC) in 2003 and is one of North America's leading authorities on decentralised energy.

She has helmed DEC through two transformational phases in 2007 and 2013 in response to changing industry and member needs. Her continuous engagement with members and industry partners has contributed to the development of a national network of over 10,000 DE stakeholders. Through the design and implementation of innovation to commercialisation programs, she has ensured that DEC annually impacts over 50 small to medium sized businesses in Canada. The current focus of her innovation efforts are related to electrification and digitalisation of decentralised energy infrastructure.

She has over 20 years of experience in the energy and the environment fields with a unique combination of industry, government, academic and non-profit sectors. She lived and worked in the UK for 7 years where she conducted post-graduate research into the co-combustion of coal with biomass at the University of Leeds. She also served as the Senior Energy Conservation Officer at Leeds City Council following the UK's Home Energy Conservation Act (1995).

Anouk holds several board professional positions including:

- Peer Reviewer for the Green Municipal Fund (GMF) and Municipalities for Climate Innovation Program (MCIP) at the Federation of Canadian Municipalities,
- Member of the Board for the Green Building Technology Access Centre (GBTAC) at Southern Alberta Institute for Technology (SAIT), and
- Advisor on the Renewable Energy and Conservation Committee at Lakeland College.

She was born and currently resides in Calgary, Alberta. She holds a B.Sc. in Geography from the University of Calgary.

FRIDAY June 14, 2019

Stephen Welby
Executive Director and Chief Operating Officer, IEEE

Innovation for US National Defense

Mr. Welby will discuss the challenges facing the United States in embracing rapid technological innovation as a cornerstone of national security and will discuss trends in commercial technology that have implications for the future of security.

Trends Impacting the Engineering Profession

Mr. Welby will discuss major global trends impacting academic and industrial engineering practitioners and discuss how these trends will impact the nature of scientific and technological work in the 21st century.

Stephen Welby is the Executive Director and Chief Operating Officer of the Institute of Electrical and Electronics Engineers (IEEE). IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community to innovate for a better tomorrow with more than 423,000 members in over 160 countries, and through its highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing, and technology information around the globe.

Prior to joining IEEE, in 2015 Stephen was nominated by President Obama and confirmed by the US Senate as the Assistant Secretary of Defense for Research and Engineering. In this role, he served as the chief technology officer for the U.S. Department of Defense, leading one of the largest and most complex research, development, and engineering organizations in the world. He oversaw a $12.5B annual investment portfolio, managed internal and collaborative research and engineering efforts, drove a culture that valued innovation, and supported the department's global technical engagement.

Stephen has more than three decades of government and industrial experience in technology and product development, including senior leadership positions at the Defense Advanced Research Projects Agency (DARPA). His technical experience includes development of leading edge aeronautical and space systems, robotics, machine learning, high-performance software, and sensor systems.

TEMSCON 2019 CONFERENCE PROGRAM

Wednesday, June 12, 2019

Wednesday, June 12 8:30 - 10:00

Conference Opening

Leading Innovation in Times of Constant Change
Room: Auditorium

David Bishop, Founder and CEO, Agile Worx

Dr. Michael Condry, President, IEEE Technology and Engineering Management Society

Keynote – Life and the Enterprise of the Future – Unlimited X Global Revolution from the 5th Machine Age - Part I
Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital

Keynote - **Indicators of R&D Emergence -- for Better Informed Technology & Engineering Management**
Dr. Alan Porter, Director of R&D, Search Technology, Inc.

Keynote - **Leading Innovation with Rapid Technology Changes**
John Avery, Director, Advanced Technology Development Center (ATDC)

Wednesday, June 12 10:30 - 12:00

Innovation Management 1
Room: Auditorium

Chair: Leon Pretorius

10:30 *A Meta-Functional, Quaternary-Based, Mathematical Structuring of the Periodic Table and Its Elements, and its Implications for Management of Innovation in Pharmaceuticals Technology*
Pravir Malik and Leon Pretorius

10:50 *Leveraging Organizational Change Management to Strengthen Benefit Delivery in Innovation*
Paul D. Babin and Ardi Ghorashy

11:10 *Value-based Digital Transformation: Innovating Customer Experiences*
Devi Vinayak Siva Rama Krishna Koilada

11:30 *Industry-University collaborations: Facilitating Internships Via A Multi-disciplinary Minor*
Robert Burgess and Craig Hill

Engineering Management 1
Room: 119A

Chair: Holly Handley

10:30 *A Risk Based Approach for Human Assurance*
Holly Handley

10:50 *Sample measurement of the ISO 22400 standard key performance indicators with the use of simulation models*
Mateusz Kikolski

11:10 *Industry 4.0 competencies for a control systems engineer*
Tumelo Sakuneka, Annlizé Marnewick and Jan Harm Pretorius

11:30 *A Robust Methodology for Building an Artificial Intelligent (AI) Virtual Assistant for Payment Processing*
Sam Albert P, Brijesh Singh and Ananda Swarup Das

Technology Management 1
Room: 119B

Session Chair: Joseph Sarkis

10:30 *Emerging Technologies and Risk: How Do We Optimize Enterprise Risk When Deploying Emerging Technologies?*
Charla Griffy-Brown, Howard Miller, Vincent Zhao, Demetrios Lazarikos and Mark Chun

10:50 *SAMWISE: An Early Career Discovery Platform for STEM Fields*
Rahul Razdan, Rodger Polanco, Zack Ackerman, Xavier Vidot and Damien Razdan

11:10 *GANDALF: A Real-World Solution to the "Soft Skills" Problem For Engineering Careers*
Rahul Razdan, Rodger Polanco, Zack Ackerman, Xavier Vidot and Damien Razdan

11:30 *Patenting and technology transfer of UNAM´s research centers*
Leonel Corona-Trevino

Project Management 1
Room: 119C

Chair: Jason K. Hui

10:30 *Using emotional intelligence during conflict resolution in projects*
Johan de Villiers, Annlizé Marnewick and Carl Marnewick

10:50 *Complexity factors affecting research and development projects duration*
Pheladi Molepo, Annlizé Marnewick and Nazeer Joseph

11:10: *Data, Information, Knowledge, and Leadership in Complex Project Management*
Thomas A McDermott, Jr

11:30 *The influence of big data competencies, team structures, and data scientists on project success*
Gloria J. Miller

Wednesday, June 12 2:00 - 4:00

Innovation Management 2

Room: Auditorium

Chair: Marina Dabic

2:00 *A toolkit of five essential clusters of heuristics for promoting innovativeness and wisdom in systems architecting the strategy and structure of organizations*
Kurt Wurthmann

2:20 *Personal values as predictors of managers' innovativeness - From theory to practice*
Marina Dabic, Vojko Potocan, Jurica Pavicic and Zlatko Nedelko

2:40 *Business model innovation using modern DevOps*
Devi Vinayak Siva Rama Krishna Koilada

3:00 *A Value Assessment Engine for the International Space Station Program*
Jeffrey M Alexander, Benjamin Anderson, Rainer Hilscher, Alison Sykes and Amy Witsil

3:20 *Disruptive Technology Forecasting based on Gartner Hype Cycle*
Xiaoli Chen and Tao Han

3:40 *The role of absorptive knowledge capacity and sustainable capabilities in adopting green innovation*
Mohamed Aboelmaged

Engineering Management 2

Room: 119A

Chair: Joe Amadi-Echendu

2:00 *Integrating Advanced CAD Modeling Simulation, 3D Printing, and Manufacturing into Higher Education STEM courses*
Eric Flynn

2:20 *Conversion of a serial line assembly into a cellular structure*
Patryk Zwierzyński

2:40 *Asset replacement in the context of servitization*
Joe Amadi-Echendu

3:00 *BIM/MR-Lean Construction Project Delivery Management System*
Sepehr Alizadehsalehi, Ahmad Hadavi and Joseph Chuenhuei Huang

3:20 *An Uncertainty Tolerant Approach For Stochastic Resource Constrained Project Scheduling Problems*
Ripon K Chakrabortty and Michael J Ryan

3:40 *An Optimised Supplier Selection Plan for Supply Chain Integrated Project Scheduling Problem*
Humyun Fuad Rahman, Ripon K Chakrabortty and Michael J Ryan

Technology Management 2
Room: 119B

Chair: Yuan Zhou

2:00 *Collaboration in the city branding process - a bibliometric analysis of scientific literature*
Karolina Ilczuk

2:20 *Identifying Technology Evolution Pathways by Integrating Citation Network and Text Mining*
Yuan Zhou, Jun-fei Du, Yu-fei Liu and Wen-jiang Zheng

2:40 *Identifying Technology and Research Communication Case of Wireless Power*
Abdalilah Owaishiz, Mike Smith, Mustafa Almuzel, Drew Beseau, Tugrul Daim and Haydar Yalcin

3:00 *The market typologies of patent transactions: An analysis of the LCD industry*
Hsin-Yu Shih, Hung-Chun Huang and Tsung-Han Ke

3:20 *Exploring Technology and Engineering Management Research Landscape*
Haydar Yalcin, Tugrul Daim, Marina Dabic and Edwin Garces

3:40 *Empirical Evidence and Economic Implications of Blockchain as a General Purpose Technology*
Evgeniia Filippova

Entrepreneurship
Room: 119C

Session Chair: Richard Evans

2:00 *New challenges in universities: Teaching Social Entrepreneurship*
Suisin Priscila Lam-Lam, Eduardo Ahumada-Tello, Ismael Plascencia-López, Oscar O. Ovalle-Osuna, Reyna V. Barragán-Quintero, Richard David Evans and Karla Soria

2:20 *Makerspaces and Entrepreneurship: The Effect of Team Dynamics and Prototyping Efficacy on Entrepreneurial Performance*
Xaver Neumeyer and Susana Santos

2:40 *A Taxonomy of Knowledge Spillovers for High-Tech Startups Development*
Marco Cuvero, Richard David Evans, Maria Granados and Alan Pilkington

3:00 *Types of IP Pledges*
Jonas F. Ehrnsperger and Frank Tietze

3:20 *Super Lean Software Startup Engineering Management*
Rahul Razdan and Satish Kambalimath

3:40 *Openness in Intellectual Property Strategies of Synthetic Biology Start-ups*
Aocheng Tang, Frank Tietze and Jenny Molloy

Wednesday, June 12 4:30 - 5:30

Editor's Panel
Room: Auditorium

Chair: Tugrul Daim

Technical Activities Information Session
Room: 119C

Chair: Brendan Galbraith

Wednesday, June 12 7:00 - 8:30

Conference Reception & Young Professionals Panel
Room: Lobby

Panel: "Importance of IEEE's role in Young Professionals career journey"

Cash Bar & Appetizers

TEMSCON INDUSTRY FORUM

Welcome from Industry Forum Chair

Welcome to the IEEE TEMSCON 2019 Industry Forum. The Industry Forum is a significant element of TEMS conferences that helps to facilitate a bridge between research and industry. The venue features industry speakers and panels that discuss the technical directions of industry and, most importantly, its challenges. Conceptually, some of the attending research community may be studying or wish to study those challenges. Industry Forum speakers come from Research and Development divisions of companies that understand the technical challenges and/or business strategies for a company. The Industry Forum concept is not a product marketing event; but rather the program is where industry presents their technology challenges and researchers, if interested, may contribute and engage to solve like challenges.

The theme of this year is "The 4th Industrial Revolution; Life and Enterprise of the Future". We have a great line-up of industry leaders and industry experts participate in various sessions. Sessions are organized into keynote speakers and panel sessions. Keynotes are senior industry leaders that discuss how an industry is changing and the many challenges that are being addressed. Panels are focused on a selected topic with each speaker presenting a point of view followed by an interactive session on the overall topics.

The IEEE is regarded internationally by many professionals as the trusted source for technology information, inspiration and collaboration. It is a thriving community for technology subject matter experts, researchers and thought leaders. The IEEE TEMS' Industry Forum provides a unique platform for industry leaders to outline their technology challenges and garner potential collaborations with the IEEE's researchers worldwide.

We would like to thank all the speakers and panellist around the globe who generously donated their time and efforts to make this forum an informative and exciting event.

Andy Chen, P. Eng.
President 2020-2021 IEEE Technology and Engineering Management Society
President & CEO, Catronic Enterprise
Founding Managing Partner, REDDS Capital

Session Moderators

Eliezer Manor, Founder and CEO, Shirat Enterprises Israel

Eliezer is a physicist who graduated from the Weizmann Institute of Science in Israel He spent many years with the Israeli Defense Forces and the R&D Department of the Israeli Ministry of Defense in the field of Electro-Optics.

His past and present activities cover the entire "spectrum" and sequence of hi-tech related activities: Hi-Tech Entrepreneurship in Israel and in the US, Angel investments and founder of portfolio companies, Technological Incubation in Israel, Venture Capital in Israel and in the US, Corporate Venture Capital, joint programs with Multi-National Companies, joint programs with the Israeli and foreign governments, Investment Banking and Stock Markets of Hi-Tech/Hi-Growth companies. He is presently a Board Member of private and public companies traded on NASDAQ and on TASE (Tel Aviv Stock Exchange).

These days he is engaged in a broad program with Israeli companies which establishes operations in China for business development, industrialization and commercialization of their products in the Chinese and worldwide markets.

Eliezer is also engaged in venture philanthropy. He and his family established Schools-on-Line Israel, an NGO, active among high-school children and teachers.

Mary Ellen Randall, CEO, Ascot Technologies

Mary Ellen Randall is founder/CEO of Ascot Technologies, Inc., an award winning full stack software development company which includes the development of mobile apps for enterprises.

Ms. Randall is a Fellow of the IEEE and serves on the IEEE Educational Activities Board, and as IEEE MOVE Community Outreach Program Director, an IEEE-USA Initiative. Ms. Randall was formerly the IEEE Vice President for Member and Geographic Activities, and an IEEE Corporate Officer.

Ms. Randall held a variety of management and technical positions with IBM, including an international assignment, hardware & software product development, digital video encoder & decoder chips, client/server services, network management software, operating systems, and test design automation. She routinely managed projects on an international scale.

Ms. Randall is a member of the Eta Kappa Nu honor society in the profession of Electrical and Computer Engineering.

Ms. Randall was named a top Woman In Business in the Research Triangle NC area and made Business Leader Magazine's Impact 100 List.

She has an MS Computer Science and Bachelors in Mathematics from Binghamton University.

Neil Sahota, Chief Innovation Officer, University of California (Emerging Technologies Research & Policy Institute)

Neil Sahota (萨冠军) is an IBM Master Inventor, United Nations (UN) Artificial Intelligence (AI) subject matter expert, and Faculty at UC Irvine. With 20+ years of business experience, he works with clients and business partners to create next generation products/solutions powered by emerging technology. His work experience spans multiple industries including legal services, healthcare, life sciences, retail, travel and transportation, energy and utilities, automotive, telecommunications, media/communication, and government. Moreover, Neil is one of the few people selected for IBM's Corporate Service Corps leadership program that pairs leaders with NGOs to perform community-driven economic development projects. For his assignment, Neil lived and worked in Ningbo, China where he partnered with Chinese corporate CEOs to create a leadership development program.

Toufi Saliba, CEO, PrivacyShell and Chair of the ACM Practitioner Board Conference Committee

Toufi Saliba is CEO, PrivacyShell and Chair of the ACM Practitioner Board Conference Committee. Toufi's background is mainly in Machine Learning, Decentralized Governance, Distributed Computing, and Cryptography. He's TODA's protocol co-author. He has authored and co-authored several algorithms, protocols, and patents. Toufi's companies have had several exits for software that he built from the ground up, some ended up at Google, HP and Intel. He sits on multiple Silicon Valley start-up boards, is the founder of the TodaQ Foundation and Chair of the ACM Practitioner Board Conference Committee. Currently, Toufi runs a start-up factory and InfoSec advisory called PrivacyShell Corp. PrivacyShell's portfolio founders have an aggregate of over $27B in exits. Toufi's #1 goal in life is enhancing technology to help achieve global prosperity while building profitable businesses and enablements from within.

Industry Experts

Dr. Paul Babin, Director, Technology, Innovation and Sustainability (retired) Thyssenkrupp North America

Dr. Paul Babin is recently retired as Director of Technology, Innovation and Sustainability at thyssenkrupp North America, Inc. He is responsible for enhancing regional activities across the four business areas in the United States, Canada and Mexico by leading coordination and collaboration among thyssenkrupp's operating companies.

As a Six Sigma master black belt, he oversees operational excellence activities, including Six Sigma Lean training and coaching for project teams. He also works closely with thyssenkrupp's university partnership programs, including sponsored research and engineering recruiting activities. Paul has a Ph.D. in Industrial and Systems Engineering. He is an ASQ six sigma master black belt and a senior member of IEEE and IISE.

Dr. Jason Borenstein, Director, Graduate Research Ethics Programs, Georgia Tech

Jason Borenstein, Ph.D., is the Director of Graduate Research Ethics Programs and Associate Director of the Center for Ethics and Technology. His appointment is divided between the School of Public Policy and the Office of Graduate Studies. He is also Affiliated Faculty at the Institute of Robotics and Intelligent Machines (IRIM).

Dr. Borenstein is an assistant editor of the journal Science and Engineering Ethics, co-editor of the Stanford Encyclopedia of Philosophy's Ethics and Information Technology section, and an editorial board member of the journal Accountability in Research. He is also Editor for Research Ethics for the National Academy of Engineering's Online Ethics Center for Engineering and Science. He was the Founder and formerly Editor-in-Chief of the Journal of Philosophy, Science & Law.

Dr. Pongrapee Buranasompob, Advisor, Mind AI

Dr. Pongrapee (Tong) Buranasompob is a venture partner of REDDS, known for futuristic innovation and global think tanks in prominent science communities. He was formerly: the Commissioner under the Secretariat of the Prime Minister, Secretary to Chief Ombudsman, and the Executive Director of International NGO. He is a National Best Selling Author, Fulbright Research Fellow, Oxford Business Alumni Committee (Bangkok Chapter) with dual doctoral degree in Organization Development and Counseling Psychology. He is also providing advisory roles to KMITL, a leading Science and Technological University in Thailand in partnership with Carnegie Mellon University. He also founded PAC 17, and directs its Executive Education and Enrichment Institute in partnership with SAID, Oxford University.

Andy Chen, P. Eng., President & CEO, Catronic Enterprise

Andy Chen is the President & CEO of Catronic Enterprise a global consulting firm. The firm's principle business is to provide consulting services for utility industry worldwide. Andy is a senior business advisor for several leading global consulting firms and enterprise software vendors. Andy held the position of the Chief Technology Officer and Vice President, Enterprise Strategy and Architecture of the largest Canadian-based electricity generator.

Andy is a partner of REDDS Venture Investment partners which empower disruptive start-ups that scale worldwide and have billion dollars plus potential through team building, global business development, financing, mentoring, and strategy.

Andy is the President 2020-2021, IEEE Technology and Engineering Management Society (TEMS) a member of Board of Governors 2019/2020 for IEEE Computer Society (CS). He participates in the United Nations Global Pulse's Data Privacy Advisory Group. He is also a director for the Federation of Enterprise Architecture Professional Organizations' board and a member of the Technical Advisory Council for the FinTech Ideas Festival. He also served as the Chair of the Technical Advisory Council for YinTech Investment Holding Ltd. As an internationally recognized speaker, Andy was a keynote speaker at the UN ITU Telecom World and AI for Good Global Summit, the World Computer Congress, the World CIO Forum, and the Digital Africa Conference.

Michael Condry, Chair, Advisory Board for ClinicAI

Michael is currently the Chair, of the Advisory Board for ClinicAI, Inc. ClinicAI is a BioMedical startup company providing technology for early detections as cancer using accurate and noninvasive methodology. Michael's career spans both academic and industry positions, mostly in industry. In addition to ClinicAI startup, his industry experience includes senior leadership roles in major corporations such as Intel, Sun, and AT&T Bell Laboratories. At Intel, Michael retired after being the Chief Technical Officer in the Client Division. He also was engaged in customer issues with security, and product design using new technologies. Michael came to Intel from Sun to lead Networking Applications research in Intel Labs. Michael's CTO role focused on customer innovation and design cost optimization; his responsibilities also included technical staff development where he established a successful program for stronger technical skills near the customer. His technical leadership plus efforts in technical staff development at Intel awarded him and his team the prestigious Intel Quality Award in 2015. At Sun he led the development of UNIX standards as well as improved the architecture processes by engineering. At AT&T he was one of the architects for the BellMac 32 processor, the first 32 bit microprocessor on the market and lead software projects including a Real-Time Unix design and Unix System V file system. He held teaching and research positions at Princeton University and University of Illinois, Urbana-Champaign. While at the University of Illinois he served on then Senator Al Gore committee on the internet. His background includes projects in computer architecture, software, firmware, operating systems, networking, IoT, internet applications, standards, and computer security. Michael retired from Intel in June 2015.

Michael has patents in computer architecture and security. He has published many technical papers and regularly presents keynotes at technical conferences

Michael, an IEEE Fellow, has many years engaging in the IEEE. He is the President of the IEEE Technology and Engineering Management Society (TEMS). Michael is a senior board member for the IEEE Industrial Electronics Society (IES), he created and chairs the IEEE Industry Forum series that has successfully engaged industry in over 20 conferences. Michael is also a member of the IEEE Computer Society for over 29 years. He has chaired many IEEE conferences as well as the Industry Forum program in multiple societies.

Raju Goteti, Vice President, Co-Innovation Network, Tata Consultancy Services

Raju Goteti, Vice President, leads and manages TCS' Co-Innovation Network (COIN), an open-innovation global network that consists of stakeholders including Tata Group companies, customers, academic partners and startups that work closely with Research and Innovation in TCS. He is the chair of the COIN Governing Council and member of several management committees along with leading academic institutions. He designed the COIN Accelerator program to engage startups and COIN Academic Labs to engage with universities to find solutions that align to the disruptive and futuristic trends in the industry. He has served on the organizing committees of several national and international conferences. Raju, an alumni of IIT Delhi has two post graduate degrees from Canada: Social Innovation from University of Waterloo and Ocean Engineering from Memorial University.

Joseph R. Herkert, Associate Professor Emeritus of Science, Technology and Society, North Carolina State University

Joseph R. Herkert is Associate Professor Emeritus of Science, Technology and Society at North Carolina State University where he teaches ethics of engineering and technology and science, technology and society courses. Dr. Herkert works primarily in the field of engineering ethics, with particular focus on macroethical problems and issues. He is editor of Social, Ethical and Policy Implications of Engineering: Selected Readings (Wiley/IEEE Press, 2000) and has published numerous articles on engineering ethics and computing ethics in engineering, law, social science, and applied ethics journals. He is a frequent speaker on engineering ethics at academic conferences and professional meetings. Herkert is a past-president of the IEEE Society on Social Implications of Technology (SSIT) and the current editor of IEEE Technology and Society Magazine. In 2007 he was the inaugural recipient of the SSIT Distinguished Service Award. He is a member of the Executive Board of the National Institute for Engineering Ethics and for ten years served on the Advisory Board of the Online Center for Ethics in Engineering and Science. Herkert is the 2005 recipient of the Sterling Olmsted Award, the highest honor bestowed by the Liberal Education Division of the American Society for Engineering Education, for "the many contributions he has made as an educator and lecturer, as a contributor to the literature, and as a promoter of the ideals of liberal education in engineering education." He is also a registered Professional Engineer (Indiana) with more than five years experience in the power industry.

Ken Huang, CEO of Cyber Security OT and Chief Scientist of NUC Chain

Ken Huang is CEO and Founder of two Blockchain Companies - Cyber Security On Toda and DistributedApps. He is the author of the book title, 'Blockchain Security Technical Guide' , written in Chinese. He is senior advisor to multiple successful blockchain startups. He is a frequent speaker at many global Blockchain conferences, including CoinDesk Consensus, Blockchain Connect, Tokensky, World Crypto Economic Forum, Bigdata Expo in China.

Ken is CISSP certified and is Chief Scientist of Nuclear Chain Foundation. He has been invited to speaker at Stanford, UC Berkeley, Beijing University, World Bank, Bank of China, Huawei, etc.

He is Technical Advisor for Top Market Group USA, IOST, NULS, WICC, as well as the Year 2018 Conference Committee Member of ACM AI Decentralized Practitioner Board. He is Blockchain Expert Committee Member of Chinese Institute of Electronics.

Ken is a Distinguished Researcher & Lecturer of Big Data Blockchain and Regulatory Technology Laboratory and RegChain Laboratory of Renmin University of China

Susan K. (Kathy) Land, Program Manager, US Defense Department

Ms. Land is a program manager for the U.S. Department of Defense with more than 30 years of industry experience in the application of software engineering methodologies and the management of information systems, as well as leadership of software and systems product development teams. Kathy is an IEEE Fellow and longtime volunteer for the IEEE. She is a member of the IEEE Entrepreneurship Committee. She is currently the 2019 Past Vice President for IEEE Technical Activities. Ms. Land is the author or co-author of a number of texts, papers, podcasts, webinars all supporting sound software engineering principles and practical application of software process methodologies. For additional information please visit: www.susankathyland.com

Marc Perron, Editor in Chief and Co-Founder, IEEE Industrial Electronics Technology Transfer News

Marc Perron is an industrial electronics professional from Quebec City (Canada) and operates his firm Alizem inc. specialized in technology commercialization. As a business consultant, he has been involved in many early stage startups in the field of electronics, from electric vehicle charging stations, to medical devices, microscopy systems and AI applied to water management systems. In 2016, he has co-founded IETTN, a new digital publication sponsored by IEEE Industrial Electronics Society (IES) promoting research and industry collaboration through educating on the technology transfer process. Marc obtained his Ph.D. in the field of AI applied to power electronics from Université Laval (Canada) in 2009 and has chaired the Electronic System-on-Chip technical committee of IES. He is a Senior IEEE member, IES and TEMS member.

Suresh Shenoy, President, WHEELS Global Foundation

Suresh V. Shenoy is an Indian-American engineer, senior business executive and philanthropist. He is the current President of WHEELS Global Foundation (WGF), an organization founded in 2013 by alumni of the Indian Institute of Technology in North America. It is an independent 501c3 charitable entity to provide innovative technology driven solutions to the challenges that affect the global rural population in six areas: Water, Healthcare, Energy, Education, Livelihood and Sustainability.

Suresh V. Shenoy is also Executive Vice President at Alyx Technologies, a Virginia based IT systems consulting company. He served two terms as Chairman of the National Capital region of the American Red Cross. He also served as a Director of The Capital IIT Alumni Association, the Fairfax County Chamber of Commerce, Tech America, and Fairfax 2015 – the biennial World Games of Police and Fire Fighters with 12,000 athletes competing from 80 countries. He was the Programs Chairman of the PanIIT Global Conference held in Washington, DC in 2005. Mr. Shenoy served as President of the PanIIT Alumni Association in North America for the 2006-2008 Term and is currently Director Emeritus. He also represented Dranesville District on the Fairfax County IT Advisory Board for six years. He served on the CLOUD2 commission – an industry initiative directed by the Obama administration to study the impact of migrating government applications to the cloud and associated impact on procurement rules, data sovereignty, security, interoperability and other issues.

Mr. Shenoy is a Fellow of the Information Management Congress (Europe) and AIIM International (USA). He was awarded the Award of Merit by AIIM International in 2015 – the highest industry recognition for Enterprise Content Management technologies. He has been recognized by IBM Corporation as 'Information Champion' for his contributions to Enterprise Content Management technologies for four consecutive years 2009-2013 and received the Distinguished Service Award from the Indian Institute of Technology in Mumbai. In 2010, Mr. Shenoy and his brother Sudhakar, were honored by the Northern Virginia Community Foundation for their leadership and contributions to Fairfax County and also received a citation for their community service from the US Congress. He has taught Entrepreneurship and Innovation at the School of Information Technology & Engineering at George Mason University for over 12 years. He served on the Partner Advisory Council at IBM for 2014-15. In 2014 Mr. Shenoy was awarded "Distinguished Alumnus" by the Indian Institute of Technology, Bombay, where he and his brother endowed the "Shenoy Innovation Studio" in 2006.

Tina Singh, CEO, Singh Law Corporation

Tina Singh has represented Corporations, Financial Institutions, Investors and Technology Start-ups in the business areas of Software as a Service (SaaS), Internet of Things (IoT), Cloud, Security, Storage, Clean-Tech, Bio-Tech, Wearables, Machine Learning, Artificial Intelligence (AI), Blockchain and other Emerging new technologies. She has served as a member of the Board of Directors for several Technology Companies, has broadcasted on Entrepreneurship, Venture Financing, Start-Ups and Financial matters on TechBiz TV aired on the International Channel and has served as the Legal Chair for a highly acclaimed guide book for entrepreneurs entitled “Essentials of Entrepreneurship”. Tina was elected to the Board of Directors of the Palo Alto Area Bar Association by her peers and served in this capacity for nine years. She has provided legal services for small, newly created businesses, Fortune 500 companies, financial institutions (including entities backed by the United States Federal Government), managed large teams of lawyers, and has also assisted as a strategic business advisor for two Venture Capital funds as well as a leadership role in a top 50 (United States) Angel Investment Fund. Having previously served as an attorney at the top national law firms Cadwalader Wickersham & Taft as well as Crowell & Moring, Tina became one of the first corporate law firm partners of Indian origin in the United States at Manatt Phelps & Phillips in 1999. After this extensive experience handling legal matters in large firms, Tina launched Singh Law Corporation with the goal of providing exceptional personalized service to help achieve the national and international business goals of clients. Tina obtained a B.A. from McGill University in Montreal, Canada in 1985 and a J.D. from the University of California, Davis, School of Law in 1988. Tina is admitted to practice law in California and Washington, D.C. and has clerked for the United States Court of Appeals for the Ninth Circuit.

Lee Stogner, Vincula Group

Lee Stogner serves in Executive Positions in several corporations that drive improved business performance using technologies that include Business Innovation, Digital Transformation, Project Management, Internet of Things and Artificial Intelligence. Lee has over 35 years of design, consulting, project management and business development experience across a range of industries. Lee has driven growth at companies that include Digital Equipment, Fluor Corporation, Rockwell International and Liquidax Capital. Customers around the world have benefited from Lee's expertise and leadership.

Throughout his working career, Lee has been active in both local and international professional activities. Lee is the Chair of the Carolinas' Engineering Cluster and a past Director of the IEEE Board of Directors. Today, Lee is active in promoting the development of the Internet of Things through his participation in the IEEE Smart Grid Initiative, the IEEE Transportation Electrification Committee and as a Member of the IEEE Internet of Things Initiative, IoT.

Mark Wehde, Section Head, Technology Development, Division of Engineering, Mayo Clinic

Mark Wehde is Section Head of Technology Development within the Mayo Clinic Division of Engineering. His team develops novel devices for clinicians and researchers. His responsibilities include strategic planning, process improvement, project evaluation, collaborations, intellectual property, and technology investigation. Mark is a member of the Medical Device Sterilization and Disinfection Committee, the Department of Facilities Diversity and Inclusion Executive Committee, the Network Management Oversight Group, the Research Information Security Advisory Group, and the Division of Engineering Safety Committee and QMS Steering Committee. He has a faculty position in the Quality Academy, the Office of Leadership and Organizational Development, and the Mayo Biomedical Engineering and Physiology graduate program. Mark is a juror for the Medical Design Excellence Awards and the Edison Awards. He is also an adjunct lecturer for the University of Wisconsin MBA Consortium program. Mark has an MBA, a MS in Biomedical Engineering, and a BS in Electrical Engineering.

Joanne Wong, Executive Director, Cancer Computer

Joanne Wong is passionate about the use of technology for making the world a better place. She is Executive Director of The Supercomputer for Cancer Research, aka Cancer Computer, an IT green social not-for-profit that transforms evergreened computers into free high performance computing cloud services for cancer researchers.

Joanne is an Information Technology (IT) business professional with strong technical and market development experience. Having worked at IBM, HP, SAP, and Cisco as an engineer, business development manager, solutions architect, and strategic investments director. As an entrepreneur, her companies specialized in the use of 3D simulation for learning. Joanne is a business advisor/mentor for multiple AI startups.

For many years, she was a board member of the Government of Canada ICT sector council setting research and advising ICT policy for the country. She is an Executive Officer, Secretary of IEEE – TEMS. Joanne is an engineering graduate from McGill University and is a member of the Quebec Order of Engineers.

INDUSTRY FORUM

Thursday, June 13
Auditorium

TEMSCON Industry Forum
"The 4th Industrial Revolution; Life and Enterprise of the Future"

08:00 - 08:30
Welcome Coffee

08:30 -9:30
Industry Forum Opening

Andy Chen, President-elect, IEEE Technology and Engineering Management Society

Keynote – Life and the Enterprise of the Future – Unlimited X Global Revolution from the 5th Machine Age - Part II
Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital

Keynote - Innovation is the fuel for our world's economy, and a driver for global human progress
Chris Hotchkiss, Vice President, Intel Corp.

Keynote – Powering the 21st Century
Anouk Kendall, President, Decentralised Energy Canada

09:30- 11:00
AI and Blockchain Decentralized impact in the 4th Industrial Revolution

Toufi Saliba (Moderator), CEO, PrivacyShell

Anouk Kendall, President, Decentralised Energy Canada

Chris Hotchkiss, Vice President, Intel Corp.

Raju Goteti, Vice President, Co-Innovation Network, Tata Consultancy Services

Stephen Ibaraki, Chairman, Managing General Partner, REDDS Capital

Ken Huang, CEO of Cyber Security OT and Chief Scientist of NUC Chain

Abstract
The greater the dependence on the machine, the greater security becomes crucial. Decentralization is a security model, it cannot be included after the fact, it has to be by design and therefore folks will not have the ability to "add" it later. Autonomous Decentralized Governance, can ensure the cost of attacking the system is higher than the benefits from the system. Current

trend has been gearing folks to include AI into Blockchains, but instead, including Decentralization into AI by design, can ensure the dependency layer is more secure without having to depend on a third party. The goal is to effectively reduce the cost of security by over 99% over a centralized model and likely to be over 99% faster as well.

11:30-12:30
Artificial Intelligence Impact in the 4th Industrial Revolution

Neil Sahota (Moderator), Chief Innovation Officer, University of California (Emerging Technologies Research & Policy Institute)

Tina Singh, CEO, Singh Law Corporation

Joe Herkert, Associate Professor Emeritus of Science, Technology and Society, North Carolina State University

Jason Borenstein, Director, Graduate Research Ethics Programs, Georgia Tech

14:00-15:30
Innovation oriented entrepreneurship in all progressive developing economies during the 4th Industrial Revolution

Eliezer Manor (Moderator), Founder and CEO, Shirat Enterprises, Israel

Paul Babin, Director, Technology, Innovation and Sustainability, (retired), Thyssenkrupp North America

Lee Stogner, Vincula Group

Marc Perron, Editor in Chief and Co-Founder, IEEE Industrical Electronics Technology Transfer News

Susan K. (Kathy) Land, Program Manager, US Department of Defense

John Avery, Director, Advanced Technology Development Center (ATDC)

Abstract

The importance of innovative entrepreneurship is accentuated nowadays, being a direct result of the exponentially growing rate of the appearance of advanced and disruptive technologies.
We will be looking at -

1. The exponential development of technologies and the impact on the industrial sector and national economies
2. The role played by MNC's and Large Companies, as well as the trends and their needs, in particular open innovation and intrapreneurship
3. The role played by hi-tech entrepreneurs in establishing their Hi-Tech Start-Ups (SME's), with their needs and the related trends of this sector
4. Novel structures to fit the needs and the trends in innovation:
   a. OIVC – Open Innovation VC funds with built-in exit strategy
   b. OII – Open Innovation Incubation of seed and start-up hi-tech companies
5. The 4th and the 5th industrial revolutions

a. Big Data, Deep Learning and AI. The human being and the machine: AI vs. Natural Intelligence – IQ and EQ
b. Direct man-machine interface and man-man interface for creative thinking and innovation

6. Future structures of corporates and companies
   a. Business oriented operations
   b. The complementary social oriented operations and the link between the two

16:00-17:30
Disruptive Healthcare, Wellbeing, Humanity and Sustainability in the 4th industrial Revolution

Mary Ellen Randall (Moderator), CEO, Ascot Technologies Inc.

Michael Condry, Chair of Advisory Board, ClinicAI

Dr. Pongrapee Buranasompob, Advisor, Mind AI

Suresh Shenoy, President, WHEELS Global Foundation

Mark Wehde, Section Head, Technology Development, Division of Engineering, Mayo Clinic

Joanne Wong, Executive Director, Cancer Computer

Abstract

The 4th Industrial Revolution is quickly becoming of age. This is defined as Cyber Physical Systems that build on the Digital Revolution. Included are disruptive technologies like robotics, 5G communications, AI, IoT, 3D printing, blockchain, and quantum computing. This session will focus on how these new disruptive technologies can be applied to Humanitarian and Sustainability issues to improve the conditions of those in need.

19:00-20:30
Conference Banquet & Awards
Rooms 119A-C

Presentation: 2019 IEEE FREDERIK PHILIPS AWARD to Dr. Asad M. Madni

Jim Jefferies, IEEE President 2018

Graduate Student Best Paper Awards (Daim and Hui)

IEEE TEMSCON 2020 (Hui)

TEMSCON 2019 CONFERENCE PROGRAM

Friday, June 14, 2019

Friday, June 14 8:30 - 10:00

Joint Session with GTRI Friday Morning Seminar
Room: Auditorium

TEMSCON and GTRI will present a joint program as part of GTRI's biweekly Friday Morning Seminar. The featured speaker will be Mr. Steve Welby, the Executive Director and Chief Operating Officer of IEEE and former US Assistant Secretary of Defense for Research and Engineering.

Keynote: - Innovation for US National Defense
Steve Welby, Executive Director, IEEE

Mr. Welby will discuss the challenges facing the United States in embracing rapid technological innovation as a cornerstone of national security and will discuss trends in commercial technology that have implications for the future of security.

Friday, June 14 10:30 - 11:00

TEMSCON Opening
Room: Auditorium

David Bishop, Founder and CEO, Agile Worx

Keynote: - Trends Impacting the Engineering Profession
Steve Welby, Executive Director, IEEE

Mr. Welby will discuss major global trends impacting academic and industrial engineering practitioners and discuss how these trends will impact the nature of scientific and technological work in the 21st century.

Friday, June 14 11:00 - 12:30

Special Track - Pitching Competition
Room: 119C

Technology Management 3
Room: 119A

Chair: Ravikiran Annaswamy

11:00 *An illustrative example of applying systems engineering tools for risk management when launching new technologies: The case of lifeboat insufficiency on the RMS Titanic*
Kurt Wurthmann

11:20 *How is utility firm dealing with disruptive technologies? An empirical research of Indonesia Electricity Company*
Zainal Arifin

11:40 *FACTS Approach to Address Cybersecurity Issues in Electric Vehicle Battery Systems*
Asadullah Khalid, Aditya Sundararajan, Alexander Hernandez and Arif Sarwat

12:00 *Modelling of battery usage with wind turbines to avoid power deviation penalties*
Bilge Dilara Iskeceli and Gulgun Kayakutlu

Project Management 2
Room: 119B

Chair: Robert Bierwolf

11:00 *A conceptual framework for interdisciplinary decision support project success*
Gloria J. Miller

11:20 *Discussing a Broad Strategy Against Troubled IS/IT Projects*
Paolo Rocchi and Stefano Za

11:40 *Reduce Risk or Increase Certainty as a P3M Dilemma - A Perspective or a Mindset?*
Robert Bierwolf and Pieter Frijns

12:00 *Management of Automotive Technology R&D Projects*
Carlos Magno B. Araujo

Friday, June 14 2:00 - 3:30

Technology Management 4
Room: 119A

Chair: Rabiz Foda

2:00 *Artificial Intelligence for Bioinformatics: Applications in Protein Folding Prediction*
Max Staples, Leong Chan, Dong Si, Kasey Johnson, Connor Whyte and Renzhi Cao

2:20 *Consumer perceptions on smart wearable devices for medical and wellness purposes*
Isabella Capalbo, Marek Penhaker, Lukas Peter and Antonino Proto

2:40 *Fractal dynamics of time series fluctuations for estimating the efficiency of dolphin-assisted therapies on children with trisomy 21*
Jesus Jaime Moreno Escobar, Jr, Oswaldo Morales Matamoros, Erika Yolanda Aguilar del Villar, Ricardo Tejeida Padilla† and Víctor Hugo Calderón Morfín

3:00 *Responsible Research and Innovation in Engineering and Technology Management: Concept, Metrics and Assessment*
Lukasz Nazarko and Borisas Melnikas

Innovation Management 3
Room: 119B

Chair: Xiaohong Quan

2:00 *Technology Acceptance Model of Internet of Things for Water Management at a local municipality*
Likotsi Morienyane and Annlizé Marnewick

2:20 *The Co-evolution of Chinese Peer-to-Peer Lending Industry and Regulation System*
Hao Peng

2:40 *Measuring the effects of innovation in wine companies in Baja California*
Reyna V. Barragán-Quintero, Oscar O. Ovalle-Osuna, Eduardo Ahumada-Tello and Richard David Evans

3:00 *Customers' Innovation Paths Affected by Customer Category: Case of Early and Majority Market Customers of Semiconductor Technology*
Changhyun Park

Social Issues
Room: 119C

Chair: Eduardo Ahumada-Tello

2:00 *The importance of social enterprises in ensuring the supply chain sustainability*
Ales Jug and Joseph Sarkis

2:20 *Becoming more socially responsible through failure: An illustrative example of a systems engineering failure analysis and corrective action report on the Deepwater Horizon disaster*
Kurt Wurthmann

2:40 *Advanced Technology Integration in Food Manufacturing Supply Chain Environment: Pathway to Sustainability and Companies' Prosperity*
Olumide O Ojo, Stefan Zigan, John Orchard and Satya Shah

3:00 *Employee Happiness in the Industry 4.0 Era: Insights from the Spanish Industrial Sector*
Rafael Ravina-Ripoll, Estela Núñez-Barriopedro, Richard David Evans and Eduardo Ahumada-Tello

Technology Management 5
Room: Auditorium

Chair: Tugrul Daim

2:00 *Continuous Cybersecurity Management Through Blockchain Technology*
Jonathan D White and Charles Daniels

2:20 *Blockchains in Supply Chains: Potential Research Directions*
Shailesh J Divey, Mert Hakan Hekimoglu and T. Ravichandran

2:40 *Blockchain technology through the lens of disruptive innovation theory*
Mohammadsaleh Saadatmand and Tugrul Daim

3:00 *Survey of AI in Cybersecurity for Information Technology Management*
Leong Chan, Ian Morgan, Hayden Simon, Fares Alshabanat, Devin Ober, James Gentry, David Min and Renzhi Cao

Friday, June 14 3:30 - 4:00

Conference Close
Room: Auditorium