

Symposium Keynote Speaker

Smart Living – at Home and on the Road



Mr. Mark Denissen is Vice President of Worldwide Strategic Marketing. In this role, he focuses on incubating and building new businesses for Texas Instruments, including technology development and market segmentation for Automotive, Energy Efficiency, Medical, Security and other High Potential Markets.

Mark has been an employee of Texas Instruments for over 25 years. He has experience in Product Line Management, Technology Licensing & Acquisition, Sales & Marketing, and Strategic Investments & Acquisitions.

Mark is a member of TI Ventures Advisory Board, InCube Labs Advisory Board, Texas Institute, Advisory Board, TECH Fort Worth Board of Directors, North Texas Regional Center for Innovation and Commercialization, and University of Texas at Dallas Institute of Innovation and Entrepreneurship Advisory Board.

Mark holds a B.S.E.E. degree from UCLA. He is married, with two grown children, and resides in McKinney, Texas.

Mr. Mark Denissen

**VP or Worldwide Strategic
Marketing**

**Texas Instruments
Incorporated**

Abstract

Mark will provide an overview of four Major Megatrends where technology is changing the way we live both for today and into the future. These are Cloud Computing, Energy Efficiency, Health & Wellness, and Security and Safety. What are the implications of these for trends for a technologist today? Then we will drill down to focus in on the Connected Home and the Intelligent Car. Mr. Denissen will provide insight into key technology trends, important areas for innovation and some specific examples.

About Texas Instruments Incorporated

A global company, TI has design, sales and manufacturing operations in more than 30 countries, with headquarters in Dallas, Texas. TI serves the world's most innovative electronics companies, helping them develop new ideas that change the way we live. Our analog, embedded processing and wireless technologies permeate daily life in many different ways, from digital communications and entertainment to medical services, automotive systems and wide-ranging applications in between. TI helps customers develop new electronics that make the world smarter, healthier, safer, greener and more fun.

Speaker – Connected Home Tract

Building a More Advanced Electrical System



Mr. Mark Carpenter

**Senior VP
T&D System Operations**

Oncor

Mr. Mark Carpenter is a graduate of Texas Tech university with a BSEE degree. He has held various field and engineer management positions in Transmission and Distribution of Oncor and its predecessor companies. These include Distribution Superintendent, Transmission Superintendent, Substation Engineering Manager, Director of System Protection, Director of Engineering, VP and Chief Information Officer, and VP and Chief Technology Officer. Mark is currently serving as Sr. VP of T&D System Operations.

Abstract:

Microprocessor, communication, and information system technology has advanced over the last several years to facilitate expanding automated systems to the electrical distribution grids in a similar fashion to the way that it has been done on the bulk power system. Two societal factors are acting as the catalyst for these technological advancements: customer expectations and the need to better integrate the full electrical energy chain. This talk will cover the history of electrical system automation, present automation initiatives (including self healing grids, advanced metering, and integrated IT systems) and immediate and expected long term automation horizons.

Energy Storage Systems for a Smarter Grid



Mr. Dave Freeman

**Chief Technologist
Power Supply Solutions**

Texas Instruments

Mr. David Freeman is a Texas Instruments Fellow and Chief Technologist for Power Supply Solutions in the Power Management business unit. Dave has expertise in the areas of battery management ranging from charging to capacity estimation. In the areas of power management, he covers low power DC/DC, high frequency power conversion and digitally controlled power. Other areas of focus for Dave are renewable energy systems and low power energy harvesting. David received a bachelor of science degree in physics from Midwestern University.

Abstract:

The Smart Grid improves the ability to add renewable energy sources to our power grid. These distributed supplies of energy come from a variety of sources such as the sun and the wind, however these supplies have a common issue, and they are intermittent. A solution to this issue is energy storage. This presentation will discuss the technology of energy storage focusing on battery systems. The systems will range from the grid subsystem storage to residential energy storage. Specific topics will be charge and discharge management as well as monitoring and lifetime optimization.

Speaker – Connected Home Tract

Beyond Speed...to the Digital Life



Mr. Richard Macias

**Director, Digital Life
Support Center**

AT&T

Mr. Richard Macias is part of the AT&T Digital Life team responsible for standing up and managing the Digital Life Care and Technical Support Centers. He has held several leadership positions within AT&T including Corporate Development to support merger initiatives and special corporate assignments. He has also served as a leader in the AT&T Business Solutions organizations where he managed Care and Billing centers across the U.S. His technical care center background includes implementing and managing Call Center technology for AT&T and Merck. He has also served as National President of The Hispanic/Latino Association of AT&T (HACEMOS).

Abstract:

Nowadays, public demands on network service shifted from faster speed and broader coverage to higher quality and easier to use. Homeowners also challenge technology companies to offer user-friendly home area network solution to enable more convenient, secure, comfortable and sustainable life style. Richard will introduce Digital Life, a new all-digital, IP-based home security and automation platform developed by AT&T. Digital Life will take homeowner from traditional home area network to a new level of automation, offering users unparalleled control and monitor of their homes on any platform, at anywhere and anytime.

Human Centric: Connected Home Design/Realization



Mr. Gary Gene Olp

Principal architect

GGO Architects

Mr. Gary Gene Olp directs a successful environmentally focused private practice in Dallas, Texas since 25 years ago in an effort to effect a fundamental change in the application of the craft of Architecture based on an understanding of environmental stewardship. His efforts reflect an enterprising approach to energy efficiency, passive solar techniques, natural day lighting, enhanced fresh air systems with an emphasis on reducing construction waste and the use of natural, non-toxic building materials. He has served as a board member on various cultural, educational and civic boards, committees and task forces. He is also involved with the City of Dallas's Green Building Task Force.

Abstract:

"Connected Home" concept has been floating around for years yet the market adoption is still slow. Gary Gene will share his unique thoughts on the integration of "Connected Home" concept from an architect's perspective. He will explore why it is important to implement human centric mind on the early phase of the design process and how best to accelerate related technology adoption. He will then expand this design mentality to four key elements: convenience, security, comfort and efficiency. Last he will cover a new residential delivery concept: modular construction, to analyze how to leverage technology and design to potentially drive the cost of home construction down.

Speaker – Intelligent Car Tract

Monitoring Human Behavior in Driving



Prof. John Hansen

**Center for Robust Speech
Systems; Dept. of
Electrical Engineering**

**University of Texas at
Dallas**

Prof. John Hansen received the Ph.D. & M.S. degrees in Electrical Engineering from Georgia Institute of Technology, and B.S.E.E. degree from Rutgers Univ. He joined Univ. of Texas at Dallas (UTDallas) in 2005, where he is Professor and Dept. Head of Electrical Engineering, and holds the Distinguished Univ. Chair in Telecommunications Engineering. At UTD, he established The Center for Robust Speech Systems (CRSS). He is an ISCA Fellow, IEEE Fellow, Member and TC Chair of IEEE Signal Processing Society Speech & Language Processing Technical Committee, former Technical Advisor to U.S. Delegate for NATO (IST/TG-01). He has supervised 59 PhD/MS thesis candidates, was recipient of 2005 University of Colorado Teacher Recognition Award, and author/co-author of 429 publications in the field of speech processing and language technology.

Abstract:

There is significant interest in the development of effective human-machine interactive systems for a wider range of personal services. Speech and Speaker Processing/Recognition research has advanced significantly in recent years, but performance in real environments remains a major challenge. In this talk, we consider several recent research efforts in the field of robust speech and speaker recognition, speech production differences including vocal effort, and modeling for speech in the car environment. These all impact voice interaction applications in when being used by a driver in a moving Vehicle

Computer Vision for Future Autonomous Vehicles



**Dr. Branislav
Kisačanin**

**Computer Scientist
Texas Instruments**

Dr. Branislav Kisačanin is a computer scientist, specializing in computer vision. He received a BSEE degree from the U of Novi Sad in Yugoslavia (now Serbia), and a PhD from the U of Illinois at Chicago. While at Delphi Electronics, he pioneered the embedded approach to development of automotive vision algorithms. Since joining Texas Instruments in 2007, he has been involved in design of optimal processor architectures for embedded vision. Branislav wrote and edited five math and engineering books, guest-edited special issues of computer vision journals, and chaired a number of workshops and tutorials at IEEE conferences. He has 5 US and 7 EU patents. In his spare time he teaches gifted kids math, physics, and computer science at the Awesome School, Awesome Math Summer Camp, and the UTD Metroplex Math Circle.

Abstract: Autonomous vehicles – in a few years, cars will drive without any help from us humans, allowing us to travel safely, while enjoying reading or a nap. In this talk we will discuss some key technologies that will one day enable autonomous vehicles, in particular computer vision algorithms that are already improving road safety around the world.

Speaker – Intelligent Car Tract

Automotive Connected Services: the Convergence of Industries and Business Models



Mr. Mark Litwin

**Principal, Technology
Strategy & Architecture
Deloitte Consulting**

Mr. Mark Litwin is a Principal in Deloitte’s Technology, Media and Telecommunications practice. Mark has over 16 years of business transformation and technology program leadership experience focused within the Wireless Communications industry. He has led a number of Telematics engagements helping OEM clients (Toyota, Honda, Hyundai, and Nissan etc.) and Telematics Service Providers with strategy development and service launches. Mark is one of Deloitte’s authorities in the Telematics domain and has deep knowledge of OEM’s business models and service providers’ solutions.

Abstract:

Telematics is becoming an increasingly large part of the vehicle value proposition and a key influencer of driving experience. The evolution of customer expectations will continue to challenge OEMs and dealers and their ability to deliver value added telematics services especially as consumers will expect increased in-vehicle connectivity and increased degree of personalization. In this talk, Mark will share his insights on the telematics trends and provide a point of view on the emerging business models and the key factors influencing future telematics services.

Autonomous Vehicles in the State of Texas



Mr. Rafael Anchia

State Representative

**Partner, Haynes & Boone,
LLP**

Texas State Representative Rafael Anchia represents House District 103, covering Northwest Dallas County, in the Texas Legislature. In the 82nd Legislative Session, Representative Anchia continues his service as Vice-Chair of the Pensions, Investments and Financial Services Committee and also serves on the Land and Resource Management Committee. He continues to serve on the Texas Sunset Advisory Commission, to which he was appointed by Speaker Joe Straus in November 2009. On July 1, 2011, Representative Anchia was appointed to the Advisory Committee for Trade Policy and Negotiations by President Barack Obama. He is a partner at the law firm of Haynes and Boone, LLP specializing in corporate finance.

Abstract:

Autonomous vehicle technology, which enables cars to operate without active human intervention, is the latest advancement in autonomous-type technologies with perhaps the greatest potential for reward. Purported benefits of the technology include increased highway safety, less traffic jam and higher productivity. As of June 2012, Nevada and Florida have signed in to law autonomous vehicle legislation. California has also drafted legislation relating to autonomous vehicles. This presentation will provide a general overview of autonomous vehicle technology and its related legislation as well as discuss the potential benefits of such technology to Texas and the possible policy concerns surrounding it.
