

# 2015 Program

## *Friday, January 02, 2015*

3:00pm  
- Registration  
6:00pm

### **Linking Today to Tomorrow**

6:00pm Opening Address – Tom Coughlin (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#coughlin>), Mike Andrews  
- (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#mandrews>)  
8:00pm

## *Saturday, January 03, 2015*

8:00am  
- Breakfast/ Registration  
9:00am

### **Keynote Address**

9:00am Our home planet is an interconnected system of geophysical, chemical and biological processes. Observing and understanding this complex system of systems is the goal of the NASA Earth Science program. Being able to understand how our home planet is changing and to predict how it will change into the future is one of the most important problems facing humanity today. Addressing this big, global challenge requires people skilled in a very broad range of disciplines from the scientists and engineers to the wide range of support services and to the creative communicators, who can translate complex science and engineering concepts into actionable information for decision makers and the general public. – Steve Hipskind (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#hipskind>)  
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10:00am

### **Unleashing Your Inner Entrepreneur**

10:00am Startups aren't easy, and hardware startups even less so. "Real" businesses from an engineer's perspective often require competencies and expenditures in R&D, fab, and even failure/fracture analysis, intertwining materials science and industrial design on top of the standard software startup table stakes of business, product, legal, and so on. We'll talk about what it means to be an entrepreneur in its many different guises, from simply being a "startup of one" and managing your own brand as you progress through your career, to spinning off your own project and product line as the world's newest creator. – Dr. Kate Jenkins (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#jenkins>)  
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11:00am

### **New Vehicle Technology: The Safety Landscape**

Safety and Driver Assist technology continue to improve the driver and passenger experience. This improved experience is made possible through the use of simulation systems and engineering design tools. Engaging "passengers" through virtual engineering tools allow engineers to engage the customer in every phase of vehicle design. Design visualization enables the design and testing of all elements of vehicle design: advances in restraints, airbags, occupant sensing, and structural optimization improve safety for more occupants in multiple crash modes.

On-board vehicle sensors provide assistance to the driver in real driving situations by eliminating blind spots, sensing surrounding vehicle and road conditions, assuring driver alertness, reducing distractions and making sure the vehicle is correctly maintained.

Advanced Wi-Fi allows vehicles to "talk" to each other and to roadway infrastructure providing enhanced environment awareness. Driver assist and vehicle communication technologies are building the foundation for a future of automated driving, which is expected to support confident driving with more capable vehicles.

11:00am  
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12:00pm

Visualization engineering and virtual based design tools provide the link between experimental performance measures to real world outcomes. Creating solutions for human-vehicle interactions, especially those that improve the safety and performance of the car you drive is a combination virtual and physical engineering design. Tom Artushin  
(<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#artushin>)

### Jobs of the Future

Technology keeps evolving at warp speed and challenges the way we work and the way we think. In this continuously changing landscape, how can we ensure that we are professionally relevant as an engineer when we graduate and during the course of our career? Nathalie Gosset, a sought after keynote speaker on matters related to the Future, will describe multiple emerging market segments where a new engineer can thrive and pursue successful careers. She will explain how to catch these new waves and how to attract employers. Ms. Gosset is frequently invited by companies, universities, and state agencies to present her insights on the future job market and on ways to accelerate STEM education in the United States. She believes that each person is responsible for maintaining their own professional relevance. In her talk she provides multiple approaches to keep a fresh career profile. Ms. Gosset is the author of the book Hidden Jobs, How to Find Them. – Nathalie Gosset (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#gosset>)

12:00pm  
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1:30pm

### Career Success: Mentor-Mentee Relationships

Mentorship is one of the few issues that is absolutely essential for a young professional. In fact, often your outside mentors can provide other networks in which to grow your career, not to mention the critical advice they can offer. These sessions will cover the ways you can find mentors, be a mentee and what doors it may open. – Brian Kalina

1:30pm

### Internet of Things: Dynamics, Evolution, Explosion

The Internet of Things, like other technology trends in the past, is a wave that appears to be swelling on the horizon. This session will cover hot topics on IoT, applications, and how it could be poised to change the world. – Dr. Aakanksha Chowdhery  
(<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#chowdhery>)

### The Power of a Personal Brand

Your professional brand goes far beyond your resume, cover letter, and online presence. A positive brand can open the door to exceptional opportunities and pave the path to an uncommonly rewarding career. In this talk Michael Junge will share what it

– (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#kalina), Robert Johnson (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#rjohnson), Mike Springman (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#springman), Lori Belnap (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#belnap) takes to land jobs with the world's best employers, and how you can build the kind of personal brand that makes you a legitimate top prospect. – Michael Junge (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#junge)

**Networking to Make a Dynamic Impact**

Networking is an opportunity for both professional development and personal advancement. Do you need to build your circle of influence, find a mentor or have your skills and talents discovered? Learn a strategic, repeatable approach that works in today's marketplace whether you are connected in the workplace, professional associations or your personal community. – Carolyn Andrews (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#candrews)

2:15pm  
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3:00pm  
  
3:00pm  
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3:30pm

**Corporate Culture: What makes working at Qualcomm exciting?**

Finding a "good fit" position isn't easy: Qualcomm wasn't on my career road map when I finished my MSEE in 2012, so how did I get here? And why do I stay? So much relies on understanding the difference between skills you bring from college, vs what you pick up on the job — and how your attitude and learning mindset, coupled with good team dynamics and a supportive supervisor / employer, makes all the difference in transition. I will talk about what it is like to be part of a Design Verification team working on WiFi at Qualcomm and discuss strategies to create a fun and friendly working environment at your workplace. – Natalia Baklitskaya (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#baklitskaya)

Afternoon Break

**Engineering Excitement: Creative, Agile, Passionate**

The heart of engineering is to harness the creativity of a truly inventive person with strong fundamental knowledge of how real things work. With the rise of maker culture and the growing prominence — almost respectability — of geekdom, more people than ever are being exposed to the learning by doing approach of the best engineers throughout history. Only engineers have the background and spark to innovate and bring to life the technologies of the future, from 3D-printed airplane parts to biologically inspired medical devices to sustainable "green" cement for construction in the developing world. There has never been a better time to be a creative engineer, whatever engineering means to you and your organization. In this session we will hear from professional engineers who are inspiring the world around them with their projects. – Dr. Pramod Abichandani (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#abichandani), Whurley (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#hurley)

3:30pm  
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5:00pm  
  
5:30pm  
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8:00pm

**Hackathon**

Arduino demos, the LED shades, Art Bots, etc.! – Tanaya Hurst (http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#hurst)

*Sunday, January 04, 2015*

8:00am

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9:00am

Breakfast/Registration

### The Next Big Thing

The Internet of Things is the current industry hype. Estimates run into the billions of devices and trillions of dollars. In fact, it will generate a lot of products, and a lot of engineering jobs. Fortunes will be won and lost. It will also generate some interesting new problems. The speaker is an expert on some aspects of this market, and will give a similar talk at ICCE (<http://www.icce.org/>) a week later.

### Confronting Energy Challenges in Our Global Future

Engineers serve a vital role in confronting global energy challenges. Over the next 30 years, young engineers, especially, will be needed to create energy solutions that address climate change, world population growth, and foster economic development. This is no small problem. Technological innovation is needed to keep our lights on and keep homes warm (or cool) with minimal environmental impact.

9:00am  
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10:30am

Renewable energy generation is part of the solution, as is advanced power electronics, demand management, energy storage, carbon capture and storage, and hybrid power systems. Yet a focus on technology alone is insufficient for success. Engineers that view and understand technology design within the context of dynamic social, economic, and environmental factors will be best suited to address the challenges ahead.

In this talk, Dr. Johnson will discuss his work in designing energy technologies and energy systems to confront energy challenges in industrialized economies and emerging markets. He will describe trends and provide cutting-edge examples of research in micro-grids, building energy management, smart devices, distributed generation, critical infrastructure resiliency, and various energy technologies such as solar PV, concentrating solar power, and thermal and electrochemical energy storage devices. Dr. Johnson will indicate opportunities for early career engineers in these and other areas, and emphasize the importance of bridging academic research with commercialized application. His US-based and international projects will demonstrate how engineers can pursue a variety of career paths locally and globally. - Pat Griffis (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#griffis>), Nate Johnson (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#johnson>), Joe Decuir (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#decur>)

### Your Outbound Challenge

11:00am  
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11:30am

Closing Ceremonies/Awards - Michael Andrews (<http://sites.ieee.org/risingstars/2015-rising-stars-conference/program/presenter-biographies/#mandrews>)

11:30pm

Depart

11:30pm

KÀ (<http://www.cirquedusoleil.com/en/shows/ka/default.aspx>) show by *Cirque du Soleil* Backstage

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5:00pm

Engineering Tour

6:00pm

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8:00pm

2015 Storage Visions Reception

