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# IEEE Future Directions Newsletter



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## Welcome

You may already be a member of one or more IEEE Technical Communities. This newsletter highlights activities across all IEEE Future Directions Technical Communities and initiatives, so you always know what's going on.

Visit each featured portal at the right for access to upcoming conferences, news articles, technical papers, related standards, professional organizations, and academic programs.

We invite you to join any of these communities at no cost. To learn more, contact [Future Directions](#), or visit our [website](#).

## Technology Policy and Ethics

IEEE Future Directions considers the reflection of technology through the lens of social implications a key tenet of our work as we incubate and promote technologies. We are seeking submissions of original content, short articles of 800-1200 words on the social implications of technology, including but not limited to policy and ethics topics. If interested please email [FDPolicyEthics@ieee.org](mailto:FDPolicyEthics@ieee.org).

### Internet of Threats and the Context Aware Security: Part Two

by Junaid Chaudhry, Ahmed Ibrahim, and Ali Kashif Bashir

In [part one](#) of this two part article, we discussed fundamental issues with the Internet of Things. In this article, we present some of the technical issues with the Internet of Things that could prove as the downfall of the Internet of Things.

[Read more.](#)

### Big Data, Analytics, and Technology's Impacts on Society

## IEEE Future Directions Communities



by Lyria Bennett Moses and Greg Adamson

The social implications of technology have been with us for as long as humans have created technology, which is to say as long as we've been human. In Paleolithic times, stone tools could be used to kill game or fellow humans. In Greek mythology, Icarus' hubris was enabled by technology. In our time, headline revelations about National Security Agency spying, Anonymous' hacking, and security breaches at Sony, at Target - you name it - no longer shock us.

[Read more.](#)

## Greening Through ICT Summit

IEEE Green ICT (information and communications technology) will be hosting a [Greening through ICT Summit](#) (GtICT) on 3 Oct in Paris France. The theme of the summit is "Sustainability in a connected world." This new one-day summit will bring representatives of various IEEE Societies to examine opportunities both where ICT is used as a tool to improve environmental and societal functions, and improving the energy efficiency of ICT itself. Its objective will be to identify the combination of key technological, commercial and public policy challenges that must be overcome to achieve sustainability in our increasingly connected world.

Additionally, young professionals are invited to participate in the first IEEE Young Professional Green ICT Idea Competition. Focusing on generating new greening ICT concepts and ideas, the competition's ultimate goal is to both create sustainable ICT and enable transformative change across society. One to two page submissions should be made no later than 11 August 2017. Winners will be announced by 25 August 2017. One winner will be selected in three different categories; winners will be invited to attend the IEEE Greening Through ICT Summit in Paris on 3 Oct 2017.

## IEEE Podcast Series: An IEEE Future Directions Digital Studio Production

Through our Q and A podcast series, IEEE Future Directions interviews some of the top subject matter experts in the emerging technologies field. Covering everything from privacy and IoT to biomedical and analytics, IEEE Future Directions Podcasts provide you with access to the industry's best of the best.

### *IEEE Technology Time Machine (TTM)*

- [Q and A with Bill Tonti](#), Senior Director, IEEE Future Directions on incubating society and life-changing technology concepts including big data, the brain, cybersecurity, digital senses, green ICT, rebooting computing, smart cities, smart materials, software defined networks and 5G through IEEE Future Directions.
- [Q and A with Mary Ward-Callan](#), Managing Director, IEEE Technical Activities on fostering the development and facilitating the exchange of scientific and technological knowledge. Reviewing the social, cultural, political, and ethical issues that commonly emerge when innovation alters perception. Her



experience at IEEE TTM illuminated her desire for a functional, realistic, and safe automated world.

### **IEEE Rebooting Computing**

- [Q and A with Arvind Kumar](#), Manager and Research Staff Member for IBM's Research Division, on two big computing trends that will shape the future of the industry, also neuromorphic computing, and the 2017 International Conference on Rebooting Computing (ICRC).
- [Q and A with Bill Tonti](#), Senior Director, IEEE Future Directions, on going beyond Moore's Law, computing systems integrated with the operating system, and the IEEE Rebooting Computing goal of creating a new foundation for the computing industry, allowing it to continue giving consumers access to devices and services that otherwise wouldn't be mass-market affordable.

For access to the full list of IEEE Rebooting Computing podcasts, visit their [website](#).

### **IEEE Big Data**

For access to the full list of IEEE Big Data podcasts, visit their [website](#).

### **IEEE 5G**

For access to the full list of IEEE 5G Transmissions podcasts, visit their [website](#).

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## **Current Activities in our Technical Communities**

### **IEEE 5G:**

Read the inaugural issue of the [IEEE 5G Tech Focus](#), a content driven publication featuring timely information on 5G developments that strives to encourage collaboration and discussion among all members of the 5G community.

Visit the IEEE 5G [web portal](#).

### **IEEE Big Data:**

Check out the latest IEEE Talks Big Data Q and A with Dr. Mahmoud Daneshmand and Dr. Kenneth J. Lutz. The two men recently participated in a joint interview to frame some of the issues raised by Big Data and data analytics in the context of the Smart Grid. Find the interview on their [website](#).

Visit the IEEE Big Data [web portal](#).

### **IEEE Brain:**

[Special Issue: Advanced Technologies for Brain Research](#), *Proceedings of the IEEE*, January 2017 with Guest Editors Metin Akay, Paul Sajda, Silvestro Micera, and Jose M. Carmena.

Visit the IEEE Brain [web portal](#).

### **IEEE Cloud Computing:**

Ansible is a relatively new configuration management tool that gained popularity after its acquisition by Redhat. In this The Clear Cloud blog post, members of the DevOps Center of Excellence at HCL (ERS) present their point of view on Ansible including the outcome of an evaluation of different features desirable in an infrastructure configuration management tool. [Read the article](#).

Visit the IEEE Cloud Computing [web portal](#).

### **IEEE Cybersecurity:**

Cryptography offers strong guarantees, even promising things like provable security. Yet in practice, time and again, systems are deployed with crypto flaws of various types. How can we explain this disconnect? Professor Jonathan Katz's discusses what provable security means and how it can be usefully interpreted by developers,

cover some common crypto errors, and offers suggestions for how to improve current practice. [Read the article.](#)

Visit the IEEE Cybersecurity [web portal](#).

**IEEE Digital Senses:**

[Sign up](#) for this new IEEE Community to receive the latest information on Digital Senses.

Visit the IEEE Digital Senses [web portal](#).

**IEEE Green ICT:**

IEEE Green ICT will be hosting a [Greening through ICT Summit](#) (GtICT) on 3 October 2017 in Paris, France. The theme of the summit is "Sustainability in a connected world."

Visit the IEEE Green ICT [web portal](#).

**IEEE Internet of Things (IoT):**

Registration for the inaugural IEEE IoT Summit is now open; the Summit will be held on Sunday, May 21, at the Hyatt Regency Paris Étoile in Paris, France. It will focus on the agriculture market and will feature speakers from Cisco, IBM, SAP, Orange, and others. For more information and to register, please visit the [summit website](#).

Visit the IEEE Internet of Things [web portal](#).

**IEEE Life Sciences:**

The IEEE Life Sciences Conference will focus on multi-society perspectives on personalized healthcare and wearables. It will take place in Sydney, Australia, 13-15 December 2017. [Learn more.](#)

Visit the IEEE Life Sciences [web portal](#).

**IEEE Rebooting Computing:**

Join IEEE at the Industry Summit this 6-10 November 2017 in Washington, D.C., USA to hear keynote speakers such as Bernie Meyerson, IBM's Chief Innovation Officer, provide insights into the direction and pace of the computing evolution. We will provide you with an interdisciplinary look at what to expect next year, in 5 years and perhaps how to prepare for the next 20-30 years of computing. Find out more on their [website](#).

Visit the IEEE Rebooting Computing [web portal](#).

**IEEE Smart Cities:**

The first [IEEE Summer School on Smart Cities](#) (IEEE S3C 2017) will be held 6-11 August 2017 in Natal, Brazil. The School provides a wide range of state-of-the-art courses and other activities led by some of the most prominent researchers and practitioners in the area. We invite paper submissions presenting original work, on-going projects, and case study results in all areas of interest to smart cities. Papers are due 7 May 2017.

Visit the IEEE Smart Cities [web portal](#).

**IEEE Smart Grid:**

Check out the new [IEEE Smart Grid Resource Center](#).

Visit the IEEE Smart Grid [web portal](#).

**IEEE Software Defined Networks (SDN):**

Will big data analysis by artificial intelligence be able to detect critical tipping points before they are reached? Developments show there could be a major breakthrough in this area of research and innovation leading to a huge impact on the digital society and economy. Read the latest post via the Think Tank on Network Softwarization for more on this topic on the [IEEE SDN blog](#).

Visit the IEEE Software Defined Networks [web portal](#).

### IEEE Transportation Electrification:

Join the [IEEE Transportation Electrification Community](#).

Visit the IEEE Transportation Electrification [web portal](#).

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## IEEE Future Directions Upcoming Events

### [IFIP/IEEE International Symposium on Integrated Network Management](#)

8-12 May 2017, Lisbon, Portugal

### [IEEE 3rd Conference on Network Softwarization \(NetSoft 2017\)](#)

3-7 July 2017, Bologna, Italy

### [IEEE COMPSAC 2017, DSAT: Data Sciences, Analytics, and Technologies Symposium](#)

4-8 July 2017, Turin, Italy

### [Greening through ICT Summit \(GtICT\)](#)

3 October 2017, Paris, France

### [IEEE 2nd International Conference on Rebooting Computing \(ICRC 2017\)](#)

8-9 November 2017, Washington, DC, USA

### [IEEE Life Sciences Conference](#)

13-15 December 2017, Sydney, Australia

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## Submission/Subscribe Information

### Subscribe to this Newsletter

Members of an IEEE Future Directions technical community receive this newsletter automatically. If you did not receive a copy of this newsletter directly, you can subscribe by [joining a technical community](#).

### Contribute Content

If you would like to submit items to be considered for inclusion in this newsletter, please send an email to [ieeefd-digital@ieee.org](mailto:ieeefd-digital@ieee.org).

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