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IEEE Future Directions Newsletter



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Four IEEE Future Directions Initiatives "Graduated" in 2017

Congratulations to our graduated initiatives!

Four initiatives supported by Future Directions have successfully moved into the IEEE infrastructure. These initiatives are now functioning IEEE technical communities.

As of January 2018, IEEE Big Data, IEEE Software Defined Networks, and IEEE Green ICT communities are guided by the lead society of IEEE Communications. The IEEE Cybersecurity community is guided by IEEE Computer Society.

For more information on IEEE Future Directions, please visit our [web portal](#).

IEEE Initiative Explores the Relationship Between Humans and Autonomous Systems

Symbiotic relationships exist between different species. Some relationships provide benefits to one or both groups; others exist because neither group can survive on its own. In the symbiotic relationship between foxglove plants and bumble bees, for example, the former need the latter for pollination, while the latter need the former for nectar.

Today the term symbiotic relationship also can describe exchanges between people and autonomous systems such those in androids, exoskeleton suits, and self-driving cars.

[Read more at The Institute.](#)

IEEE Future Directions Communities



Technology Policy and Ethics

Future Directions considers the reflection of technology through the lens of social implications a key tenant 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.

The Slow Tech Journey: An Approach to Teaching Corporate Social Responsibility - Part 2

by Rebecca Lee Hammons, Norberto Patrignani, and Diane Whitehouse

In the last newsletter, the authors provided a background to corporate social responsibility (CSR) and ethics in the information, communications and technology (ICT) industry along with a description of the Slow Tech journey and the importance of educating students in good, clean and fair ICT practices. Part 2 of this article provides more insight into the importance of this type of education in relation to people and the planet. It also offers some examples of case studies that can be used as a method for teaching Slow Tech principles and engaging students in critical thinking.

[Read more.](#)

[Read The Slow Tech Journey Part 1.](#)

IEEE Future Directions Technology Time Machine (TTM) 2018

Save the Date! Join us for the [2018 TTM Symposium](#) 31 October-1 November 2018 at the Hilton San Diego Resort & Spa in San Diego, CA, USA. The IEEE Technology Time Machine is the IEEE's flagship conference on future technology directions.

The overall theme of TTM 2018 is "Beyond Tomorrow." Building upon the IEEE's major technology initiatives, TTM 2018 will bring together renowned experts from research and industry to provide an overview of various technologies and explore how they may be leveraged "beyond tomorrow" through their research, products and services. Participants will not only get a glimpse into tomorrow but also see its relevance to today.

Current Activities in our Technical Communities

IEEE 5G:

The 2018 1st IEEE 5G World Forum (5GWF'18) July 9-11 2018 in Santa Clara, California, USA seeks contributions on how to nurture and cultivate 5G technologies and applications for the benefit of society. [View](#) the online Call for Papers.

[Visit the portal.](#)

IEEE Cloud Computing:



[Sign up](#) for the latest information on cloud computing.

[Visit the portal.](#)

IEEE Cybersecurity:

The IEEE Cybersecurity Initiative has released its seventh report, titled "Building Code for the Internet of Things." The many characteristics that make the IoT different from traditional networked computing also require us to pay particular attention to how to make such systems safe and secure. This Building Code document focuses on the challenges associated with composing systems, rather than building individual programs or devices. We use the concept of smart cities to illustrate how design for safety, security, and privacy must consider emergent properties, and how a system or technology designed for this domain must account for how it might be integrated, reused, or composed with other technologies and systems. [Read the report.](#)

[Visit the portal.](#)

IEEE Digital Senses:

IEEE has produced and released a mixed reality video, where the physical and digital blend together seamlessly and ubiquitously. [Watch the video.](#)

[Visit the portal.](#)

IEEE Life Sciences:

[Sign up](#) for the latest information on Life Sciences.

[Visit the portal.](#)

IEEE Smart Grid:

Upcoming Tutorials: [An In-depth Review of the IEEE P1547 \(Revision\) Draft Standard](#)

Presented by: Jens Boemer, Babak Enayati, David Narang, Mark Siira, and Wayne Stec

[Visit the portal.](#)

IEEE Transportation Electrification:

The [September 2017 issue](#) of the IEEE Transportation Electrification Newsletter is now available. Articles include:

- EV Integration and the SYNDEM Smart Grid Architecture
- The McMaster Engineering EcoCAR 3 Team Drives the Automotive Industry Forward
- ITEC Asia-Pacific Gaining Momentum

[Visit the portal.](#)

IEEE Internet of Things:

The [January 2018](#) issue of the IEEE Internet of Things Newsletter is now available.

Articles include:

- Eight Trends of the Internet of Things in 2018
- IoT Trends in 2018: AI, Blockchain, and the Edge
- Smart City Application Enablement Platform
- Livinâ€™™ on the Edge

[Visit the portal.](#)

IEEE Software Defined Networks:

The Software Defined Networks (SDN) Initiative successfully completed its transition to the IEEE Communications Society (ComSoc) Emerging Technical Committee. The dedicated and enthusiastic volunteers expect that this Committee be elevated into a full-fledged ComSoc Technical Committee in 2018. All the SDN Initiative products will still be available and we encourage current and prospective SDN Community members to [engage](#). Join and Meet us in Montreal in June for [NetSoft 2018!](#)

[Visit the portal.](#)

IEEE Smart Cities:

The [IEEE Smart Cities Initiative Vision](#) is to bring together IEEE's broad array of technical Societies and organizations to advance the state of the art for smart city technologies for the benefit of society and to set the global standard in this regard by serving as a neutral broker of information amongst industry, academic, and government stakeholders.

[Visit the portal.](#)

IEEE Symbiotic Autonomous Systems Initiative:

The Symbiotic Autonomous Systems has produced a white paper and webinars where the initiative aims to define symbiotic autonomous systems and address their technical fundamentals, evolution, and potential implications from an economic, social and ethical aspects. Read the [white paper](#), watch the [webinars](#) and join the [discussion](#).

[Visit the portal.](#)

IEEE Big Data:

Check out the IEEE Big Data [podcast series](#).

[Visit the portal.](#)

IEEE Rebooting Computing:

Rebooting Computing Initiative is placing its Call for Papers for the 3rd annual International Conference on Rebooting Computing (ICRC 2018) being held at Washington DC area in early November. Topics include Future Computing Approaches (Neuromorphic, Quantum, etc.), to Future Computing Design aspects (Extending Moore's Law, 3D/Heterogeneous Integration, etc.), and Future Software and Applications (Beyond von Neumann, OSes, Compilers, etc.). Visit our [website](#) for details.

[Visit the portal.](#)

IEEE Green ICT:

Read IEEE Green ICT Initiative co-chair Charles Despins' article ["Four Takeaways From the First IEEE Greening Through ICT Summit"](#) in *The Institute*.

[Visit the portal.](#)

IEEE Brain:

Read the latest issue of [BrainInsight](#), the IEEE Brain Initiative eNewsletter, including a message from our editor Ricardo Chavarriaga reflecting on our activities in 2017.

[Visit the portal.](#)

IEEE Future Directions Events

[2018 4th IEEE Conference on Network Softwarization and Workshops \(NetSoft\)](#), 25-29 June 2018, Montreal, QC, Canada

[2018 IEEE 5G World Forum \(5GWF'18\)](#), 9-11 July 2018, Santa Clara, CA, USA

[2018 IEEE Cybersecurity Development \(SecDev\)](#), 30 September - 2 October 2018, Cambridge, MA, USA

[IEEE Future Directions Technology Time Machine 2018](#), 31 October - 1 November 2018, San Diego, CA, USA.

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