IEEE Future Directions Newsletter

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IEEE Future Directions is pleased to share news on our IEEE Future Directions Corporate Partnership with Microsoft. We are working together on two upcoming IEEE Future Tech Forum roundtable events. One on responsible AI, the other on climate change. Please check out our complimentary recording of the last Future Tech Forum roundtable held 17 February, the "Social Digital Twin," Digital Twin Roundtable - IEEE Future Directions. Moderated by Dr. Derrick de Kerckhove, the panel of experts focused on Digital Twins within society, the need for common sense among them, and their relationship within the metaverse(s).

Highlighting the Recent IEEE Future Tech Forum Roundtable on Responsible AI

A great example of industry collaboration. The recent Future Tech Forum held a roundtable discussion on responsible AI - how are industry, regulatory bodies and policy makers working together. This special live virtual event, organized in partnership with Microsoft, was held on 17th May and available to watch on demand, here. During the event, moderated by Susan Etlinger, Director, CXO Thought Leadership, Data & AI at Microsoft, a panel of subject matter experts focused on how industry, regulatory bodies, and policymakers are working together to drive responsible Artificial Intelligence (AI). Speakers included Carolyn McGregor, Contario Tech University; Christine Runnegar, Internet Trust at the Internet Society; Yoav Schlesinger, Salesforce; and Andrew Strait, Ada Lovelace Institute.

This was the first of a series of discussions with industry corporate partners. Check out [IEEE Future Tech Forum - IEEE Future Directions](#) for more information and future events.

Visit the IEEE Future Tech Forum

GET Ready to Learn about Blockchain & Beyond at the IEEE GET Blockchain Forum!

Are you interested in learning about blockchain but perplexed by this technology space and its many applications and variations? Whether you are new to this technology or an active practitioner, you won't want to miss the [2022 IEEE 1st Global Emerging Technology (GET) Blockchain Forum](#), an upcoming conference on 7-11 November that looks to explore a range of future technologies related to "Blockchain & Beyond!"

Powered by [IEEE Blockchain](#), the IEEE GET Blockchain Forum will bring together experts from industry, academia, and research to exchange their vision as well as their achieved advances in blockchain and distributed ledger technology (DLT), and encourage innovative cross-domain studies, research, early deployment, and large-scale pilot showcases that address the challenges of blockchain while identifying and investigating the possibilities of future blockchain/DLT networks.

This inaugural forum will include a rich and comprehensive agenda consisting of workshops, keynotes, demos, a hackathon, industry forum, and more. There are seven topical tracks and a variety of symposiums focused on blockchain applications in health, standards, energy, supply chain, future networks, cybersecurity & privacy, metaverse, and more.

This will be an in-person conference held in Southern California with online participation options. The [call for proposals](#) is now open with paper submissions due on 31 July. Learn more about this exciting event at the [IEEE GET Blockchain website](#), and join us in November!

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 currently seeking submissions of original content, 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. Learn more about submitting an article through the author guidelines.

In recognition and support of this important topic on technology policy and ethics, IEEE *Xplore* will be publishing its peer reviewed articles. They will be accessible under the new category called, "Technology Trends".

Activities in Our Current Technical Communities

The IEEE Blockchain-Enabled Transactive Energy (BCTE) project seeks innovative demo proposals from startups, utilities, nonprofits, and university research labs (individually or teamed) that have a working prototype which can be used by IEEE BCTE to promote and disseminate the knowledge of blockchain DLT solutions applied to Transactive Energy Markets. Submit your proposal by 1 June 2022. Awards for accepted proposals!

Learn more at the IEEE BCTE website.

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Check out the latest of the IEEE Digital Reality Webinar Series. The Power of AI: Introducing AI Literacy Globally was held 19 May with the on demand recording available now. This was a joint event organized by the WIE Santa Clara Valley section and IEEE Digital Reality. Learn more about the latest events, podcasts, and other activities on the IEEE Digital Reality website.

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Join four of the International Network Generations Roadmap (INGR) Working Groups as they present their updates to the 2022 Edition of the Roadmap at The Road to 6G: INGR Mapping Future Networks into 2032 Webinar on 1 June. The INGR Security and Privacy Working Group is hosting the 2nd Future Network Security: Challenges & Opportunities Workshop on 28-30 June. The INGR Satellite Working Group is also hosting its Advanced Solutions for 6G Satellite Systems Workshop on 19-21 July.

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Early [registration](#) for [IEEE Quantum Week 2022](#) opens this month. The [3rd IEEE International Conference on Quantum Computing and Engineering (QCE22)](#) will be held 18-23 September in Broomfield, CO, USA. To learn more about our flagship conference, including a look at the scheduled plenary [keynote speakers](#), visit the [QCE22 site](#).

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[IEEE Future Directions Small Projects:](#)

The Future Directions Committee has identified various technology areas that are currently in the "Small Project" phase. In this phase, each of the small projects is working towards the path of becoming an initiative in the near future. With volunteer leadership designated to each project, teams have been meeting regularly to ideate, build a framework, and rally the tech community (both internally and externally) on the respective area of focus. Visit the [Small Projects website](#) to learn more.

The Smart Lighting Project is co-sponsoring the [17th International Symposium on the Science & Technology of Lighting LS17](#) which will take place in Toulouse from 1-3 June, co-located with the 11th EEDAL conference. This event will be hosted both virtually and in person. The conference looks to be a great success because we expect to have more than 150 contributed papers in cutting-edge topics in Lighting Systems and Domestic Appliances Technology.

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The LEO SATS project hosted their first exhibit during [WAMICON 22](#) in Clearwater, Florida last month. This activity allowed the project to acquire more volunteer interest from members and nonmembers. In an effort to attract more volunteers to get involved, there will also be an exhibit booth at the [International Microwave Symposium](#) in Denver, Colorado from 19-24 June.

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The Chair of the Telepresence Project, Adrian Stoica has been invited to speak at a virtual event being hosted by IEEE Standards. The event is entitled "[The Robotic Assistant for the Aging: The Unbalanced Struggle Between Benefits and Challenges](#)" and will take place on 8 June 2022. With the expectation of the aging population to increase and outpace younger generations, it is apparent that different models and forms of support will be needed to accommodate their varying levels of needs. Join this interactive live webinar to hear how robotics can be a

pragmatic opportunity for the aging population and where industry stakeholders need to come together to make it a trusted and validated resource.

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Activities in Our Graduated Technical Communities

The IEEE Brain Initiative was formed in 2015 to create a technical community to facilitate cross-disciplinary collaboration and coordination to advance research, standardization, and development of engineering and technology to improve our understanding of the brain to treat diseases and to improve human condition. IEEE Brain Initiative unites engineering and computing expertise across IEEE Societies and Councils relevant to neuroscience, and provides an avenue for IEEE to work with multiple constituencies in academia, industry and government to incubate and sponsor new activities, projects, and standards that facilitate bringing neurotechnology to market in an ethical and responsible manner. Visit the IEEE Brain web portal to learn more.

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IEEE Cloud Computing is now the IEEE Technical Committee on Cloud Computing. The community provides a forum for members to broaden professional contacts, facilitates information exchange, and stimulates the growth of research, education, and industry in cloud computing. Visit the IEEE TCCLD web portal to learn more.

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The IEEE Internet of Things is one of IEEEâ€™s important, multi-disciplinary, cross-platform Initiatives. The Internet of Things (IoT) is one of the most exciting technological developments in the world today and the global technical community is coalescing around the thought-leading content, resources, and collaborative opportunities provided by the IEEE IoT Initiative. Visit the IEEE Internet of Things web portal to learn more.

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The intersection of medicine, life sciences, physical sciences, and engineering is a rapidly growing field, producing benefits for humanity and offering meaningful career paths. The IEEE Life Sciences Community brings together engineers, computer scientists, life scientists, medical practitioners, and researchers to advance the application of engineering and technology to the life sciences. Visit the LSTC website to learn more.

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The Task Force on Rebooting Computing (TFRC), housed within IEEE Computer Society, is the new home for the IEEE Rebooting Computing Initiative. Founded in 2013 by the IEEE Future Directions Committee, Rebooting Computing has provided an international, interdisciplinary environment where experts from a wide variety of computer-related fields can come together to explore novel approaches to future computing. Visit the IEEE Rebooting Computing website to learn more.

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Check out the new IEEE PES Grid Edge Technologies Conference & Exposition coming in 2023. This conference aims to provide an international forum for experts to promote, share, and discuss issues, solutions, and lessons learned working at the interface of the electric grid. Visit the Smart Grid website to learn more.

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IEEE 8th IEEE International Smart Cities Conference 2022 (ISC2) will be held 26-29 September in Paphos, Cyprus. The ISC2 Call for Papers has been extended to 31 May. Please visit the ISC2 CFP page for submission guidelines and important dates. Winners of the IEEE Smart Cities Award 2022 will showcase their successfully leveraged smart city technologies and innovation. To enter your project, or nominate a city or municipality, click here.

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IEEE SDN now offers a collection of online courses in the field of Software Defined Networking, Network Function Virtualization, and related technologies. Learn from industry experts about topics that include the fundamentals of SDN and NFV, security and management challenges, the latest

SDN open source platforms, and more. Participants also have the opportunity to earn Continuing Education Units (CEUs) and Professional Development Hours (PDHs) with each course. Access the courses in the eLearning modules.

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The IEEE Sustainable ICT initatitive's mission is to build a holistic approach to sustainability through ICT by incorporating green metrics through IEEE technical domains and seeks to foster the incorporation of green metrics and standards in design concepts for various technical domains. The initiative brings together expertise from different fields, in conferences and publications, with a view to foster holistic design and standardization approaches. Please join the IEEE Sustainable ICT Technical Community to help drive this very important topic.

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The IEEE Cybersecurity Initiative (CYBSI) is now the IEEE Computer Society's Technical Community on Security and Privacy (TCSP). Launched in 2014 by the IEEE Computer Society and the IEEE Future Directions Committee, TCSP's goal is to foster excellence in computer security and privacy research. Visit the TCSP website to learn more about this technical community's publications and sponsored conferences.

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The IEEE Transportation Electrification Community coordinates broad and deep activities throughout the IEEE in the growing electrification revolution across transportation domains, including advances in electric and hybrid cars, more-electric ships and aircraft, rail systems, personal transport, and the motive, storage, power grid, electronic intelligence, and control technologies that make them possible. Visit the TEC website to learn more.

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IEEE Future Directions Events

2022 IEEE European Symposium on Security and Privacy (EuroS&P)
Genoa Italy | 6-10 June 2022

2nd Future Network Security: Challenges and Opportunities Workshop
Online | 28-30 June 2022

Advanced Solutions for 6G Satellite Systems
Online | 19-21 July 2022

2022 IEEE Symposium on Computer Security Foundations (CSF)
Haifa, Israel| 7-10 August 2022

2022 IEEE 10th International Conference on Smart Grid Engineering (SEGE)
Ontario, Canada | 10-12 August 2022

IEEE Quantum Week 2022
Broomfield, Colorado, USA | 18-23 September 2022

IEEE 8th IEEE International Smart Cities Conference 2022 (ISC2)
Paphos, Cyprus | 26-29 September 2022

2022 IEEE Future Networks World Forum (FNWF)
Montreal, Quebec, Canada | 12-14 October 2022

2022 IEEE Secure Development Conference (SecDev)
Atlanta, GA, USA |18-20 October

2022 IEEE 1st Global Emerging Technology Blockchain Forum
Southern California, USA | 7-11 November 2022

2022 IEEE 2nd International Conference on Intelligent Reality (ICIR)
Online | 14-16 December 2022

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