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IEEE Future Directions Community on IEEE Collabratec

The new IEEE Future Directions Community on IEEE Collabratec provides a space to share relative events, articles, volunteer opportunities, and more from all current and graduated Future Directions initiatives. Join now to share your ideas and get more involved! [Visit the community](#) to get started.

New Small Projects Started

The IEEE Future Directions Committee approved three new small projects on Low-Earth Orbit (LEO) Satellites and Systems, Smart Lighting, and Telepresence. Stay tuned in future newsletters for more information and opportunities to participate.

Technology Policy and Ethics

[IEEE Future Directions Technology, Policy and Ethics](#) publishes articles addressing issues in current and future technologies, including the social and ethical considerations. We are currently seeking submissions of original content, articles of 800-1200 words on the 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](#).

COVID-19 and Cloud Technologies: All-Cloud IT Operating Model for Pandemic Management - Part 2

Dr. Petar Radanliev and Professor Dave De Roure, *Department of Engineering Sciences, University of Oxford, England, UK*

The COVID-19 pandemic has overwhelmed healthcare systems globally, but if global technology policy is supportive, COVID-19 could trigger a digital healthcare transformation suitable for the new digital age. Global pandemics require fast and flexible healthcare systems that promote global collaboration. This could be an opportunity to rethink how healthcare

systems operate globally. In the process of digital transformation, health tech start-ups are crucial in discovering new solutions, but it also requires a new mind-set. A mind-set where transformation from capital-intensive IT operations evolves into flexible, low-asset, all-cloud digital IT operations. In this article, we analyze new opportunities of cloud technologies for COVID-19 health tech start-ups.

[Read More](#)

Psybersecurity: A New Emerging Topic and Research Area Within Human Security - Part 1

Carlee Franklin and Ankur Chattopadhyay, *Northern Kentucky University*

With the rise of technology in every facet of daily life, the increased conveniences come with multiple security risks. When imagining cybersecurity, the focus is generally on the protection of personal information, and the technology that stores this information. However, cyber-attacks can come in multiple forms. The term "psybersecurity" refers to the subject of securing mental health, including protection of the human psychological wellbeing from the psychiatric consequences of technology usage, and studying the mental health attack surface plus vectors within the field of human security. With 1,473 reported cybersecurity breaches and over 164.68 million sensitive records exposed in the United States alone, the aftermath of these attacks extends beyond the technical repercussions.

[Read More](#)

Building the Next Generation Technology Workforce

Dr. Adriana Bankston, *Chief Outreach Officer at the Journal of Science Policy & Governance (JSPG)*

Technology is all around us and holds much promise for positive impacts on society. Fostering responsible and ethical engagement of students, postdocs, and early career scholars with technology is critical to the development of a workforce with the ability to address societal challenges and act in order to serve the public good.

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Current Activities in our Technical Communities



The IEEE Healthcare: Blockchain & AI Virtual Series is a fully virtual event series designed to convene a robust and vibrant community around the topic of blockchain and AI enabled healthcare. Through podcasts, virtual keynotes and industry forums, digitally curated poster competitions, globally connected standards collaborations and publications, this series is aiming to deliver actionable discussions from all aspects of the healthcare industry. Sessions are held on the first Wednesday of each month. Register for the next virtual session on 7 April at the [IEEE Healthcare: Blockchain & AI website](#).

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Don't forget to visit the IEEE Brain Community's virtual exhibit booth at the 7th Annual BRAIN Initiative Investigators Meeting on 15-17 June 2021. Registration is now open. For more information on the upcoming meeting, visit the [BRAIN Initiative Investigators Meeting website](#).

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IEEE Cloud Computing provides a forum for members to broaden professional contacts, facilitates information exchange, and stimulates the growth of research, education, and industry in cloud computing. For more information, visit the IEEE Cloud Computing portal, and join their [Technical Community](#) to get involved.

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IEEE Cybersecurity provides the go-to online presence for security and privacy professionals to improve the comprehension and implementation of cybersecurity by professionals, students, and educators. For more information, visit the IEEE Cybersecurity portal, and join their [Technical Community](#) to get involved.

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IEEE Digital Reality will be hosting a free, live webinar on [Digital Twins for Trustworthy Autonomy](#). New technologies and emerging trends, such as Autonomous Vehicles, require ongoing maintenance and can be vulnerable to a number of threats. Professor Francesco Flammini will explain how Digital Twins can play a role in collaborative security, support to prognostics, and preventive maintenance in Industry 4.0 and other Smart-X applications during the webinar on 15 April 2021. Visit the IEEE Digital Reality portal to learn more about the featured speaker, webinar topic, and how to save your spot!

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The [2nd Edition of the INGR](#) has been released and is available for download for IEEE Future Networks Technical Community subscribers. Updated versions of all the 1st Edition Chapters will be included with all new content on



Energy Efficiency, Systems Optimization, Deployment, Artificial Intelligence/Machine Learning, and Connecting the Unconnected. Read the Executive Summary to understand how future networks will impact the next decade of everyone's lives. And don't forget to catch up on the latest Future Networks [webinars](#), [podcasts](#), [videos](#), and [workshops](#).

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Reserve your spot for the [2021 World Forum on Internet of Things \(WF-IoT\)](#) to hear from innovative international technologists and industry leaders in critical subject areas of IoT as they explore the future and promise of IoT and the impact artificial intelligence has on its progression, innovation, and deployment for the benefit of society and humanity. The forum's comprehensive, 6-week program includes an impressive array of keynote speeches delivered by distinguished speakers from industry, academia and the public sector; panels and forums; technical sessions featuring peer-reviewed technical papers; workshops focusing on the latest trends in various technologies; tutorials delivered by experts in respective disciplines; programs in Entrepreneurship, Women in Engineering, and Young Professionals; sessions for practitioners, policy makers, and executives.

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The Life Sciences Community fosters collaboration and communication among life sciences and technology practitioners to advance the application of life sciences among technology companies, hospitals, government organizations, pharmaceutical company researchers, and university researchers. For more information, visit the IEEE Life Sciences portal, and join their [Technical Community](#) to get involved.

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IEEE Quantum and IEEE SA invite you to attend our new flagship [Quantum Computing Education - Workforce Development Program](#). This virtual program is designed to empower our community of lifelong learners with quantum technology industry knowledge for global impact. Topics range from introductory to in-depth engineering concepts and applications. Register now for upcoming courses and access previous ones on-demand at the IEEE Quantum portal.

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The IEEE Rebooting Computing Initiative has graduated from Future Directions and transitioned to a task force within IEEE Computer Society. The Task Force on Rebooting Computing (TFRC) comprises four main components: conferences, competitions, community, and roadmaps. TFRC continues to explore novel approaches to future computing and is supported by a wide range of IEEE Societies and Councils. For further information, learn more at the [IEEE Rebooting Computing portal](#).

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The [2021 IEEE Smart Grid for Smart Cities International Forum \(SG4SC\)](#) was held on 17-23 March. Content from SG4SC is now available online at the [IEEE Smart Grid Resource Center](#).

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The [IEEE International Smart Cities Conference](#) is the flagship IEEE Smart Cities event which brings together practitioners, city policymakers & administrators, infrastructure operators, industry representatives and researchers to present technologies and applications, share their experiences & views with current and future Smart Cities applications.

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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](#).

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The IEEE Sustainable ICT Initiative'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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Upcoming Webinar - [Register now](#) for the next TEC webinar entitled: Electrified Drones for Emergency Medical Response being presented by Dr. Carolyn McGregor AM and Dr. Sheldon Williamson. This webinar is jointly by IEEE TEC and the IEEE Engineering in Medicine and Biology Society.

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IEEE Future Directions Events

- [2021 IEEE International Conference on Intelligent Reality \(ICIR\)](#)
12-13 May 2021, Online
- [2021 IEEE 7th World Forum on Internet of Things \(WF-IoT\)](#)
14 June - 31 July 2021, New Orleans, Louisiana, USA / Online
- [2021 IEEE 7th International Conference on Network Softwarization \(NetSoft\)](#)
28 June - 2 July 2021, Tokyo, Japan / Online
- [2021 IEEE International Smart Cities Conference \(ISC2\)](#)
7-10 September 2021, Online
- [2021 IEEE 5G World Forum \(5GWF'21\)](#)
13-15 October 2021, Montreal, Canada
- [2021 IEEE International Conference on Quantum Computing and Engineering \(QCE\)](#)
18-22 October 2021, Online

Subscribe to this Newsletter

Participants of current and graduated IEEE Future Directions technical communities receive this newsletter automatically. If you did not receive a copy of this newsletter directly, or you would like to learn more about a particular initiative, you can subscribe by [joining an initiative](#).

View the Newsletter Archive

If you would like to read any of our past issues, you can [find them here](#).

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.
