

January 2021 Highlights

#### COVID-19 & THE INTERNET OF THINGS

See some perspectives gathered by CDAIT on the use of IoT technologies in preventing and monitoring COVID-19 like infectious diseases & pandemic impact on IoT – as of 01/31/2021 -658 entries:

https://devcdait.gatech.edu/sites/del ault/files/covid-

19\_iot\_january\_2020\_january\_31\_20/ 1.pdf

#### SENIOR CITIZENS & THE INTERNET OF THIN

Park Associates press release, **"Tech Usage Among Seniors 65+ Skyrockets During COVID-19 Pandemic**," January 13, 2021 http://parksassociates.com/blog/art icle/pr-01132021 [Re. CONNECTIONS Summit at CES 2021 on 1/14/2021]

Aging in Place Staff, **"IoT and Seniors,"** Aging in Place website, updated for January 2021 https://aginginplace.org/iot-andseniors/

Arti Lotus, "Seniors Wishing to Age in Place: The Future of Remote Care Management Using IoT Devices," IoT Evolution Health News, January 7, 2021 https://www.iotevolutionhealth.com /topics/iotevolutionhealth/articles/ 447605-seniors-wishing-age-placefuture-remote-care-management.htm

Ajay Rane, "How The Internet of Things (IoT) Can Be Used to Monitor The Elderly," HIT Consultant Media, December 23. 2020

https://hitconsultant.net/2020/12/2 3/iot-monitorelderly/# XAnV6TmSIPY

Frederic Paul, "Why IoT for seniors is a lot tougher than it looks -- Senior citizens are often touted as a huge potential market for the Internet of Things (IoT), but progress may be slower than a retiree with a bad hip," Network World, August 23, 2018

https://www.networkworld.com/arti cle/3294198/why-iot-for-seniors-isa-lot-tougher-than-it-looks.html

# GT CDAIT <u>Biweekly IoT News D</u>igest (01/21 – 2)

## IoT News and Market Reports

(Second Half of January 2021) • Selected IoT-related announcements and featured activities/topics in the second half of January 2021 gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world – 15 entries – See: https://devcdait.gatech.edu/sites/default/files/iot\_new s\_filings\_january\_2021\_second\_half.pdf

 Sample list of IoT-related market reports published in the second half of January 2021 gathered by CDAIT- 84 entries - See:

https://devcdait.gatech.edu/sites/default/files/iot\_mar ket\_reports\_january\_2021\_second\_half.pdf

#### Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Jinxi Zhang, Shaobo Gong, Xin Li, Junrui Liang, Zhong Lin Wang, and Kailiang Ren, "A Wind-Driven Poly(tetrafluoroethylene) Electret and Polylactide Polymer-Based Hybrid Nanogenerator for Self-Powered Temperature Detection System," Advanced Sustainable Systems, December 21, 2020 [issued online January 11, 2021] https://doi.org/10.1002/adsu.202000192 - Zhong Lin Wang is the Hightower Chair in Materials Science and Engineering, Regents' Professor, and College of Engineering Distinguished Professor at Georgia Tech.
- Yan Wang, "Design of Trustworthy Cyber-Physical-Social Systems with Discrete Bayesian Optimization," Journal of Mechanical Design, published online January 6, 2021 https://doi.org/10.1115/1.4049532 - Yan Wang is Assistant Professor in the George W. Woodruff School of Mechanical Engineering at Georgia Tech.

OF NOTE: Shalini Sharma Goel, Anubhav Goel, Mohit Kumar & Germán Moltó, "A review of Internet of Things: qualifying technologies and boundless horizon," Journal of Reliable Intelligent Environments (2021), online January 11, 2021 https://doi.org/10.1007/s40860-020-00127-w Matt Hamon, "IoT at CES 2021: a sign of the times," IoT Business News, January 25, 2021 https://iotbusinessnews.com/2021/01/25/20211-iot-at-ces-2021-a-sign-of-the-times/

### Special Reading Suggestions

Articles (Lessons from 2020 - Cont'd from previous biweekly IoT News Digest)

- Rich Handley, "Renewed Hope for the Internet of Things." RFID Journal, January 25, 2021\_https://www.rfidjournal.com/renewed-hope-for-theinternet-of-things
- Vincent Korstanje, "IoT Predictions for a Post-Pandemic World," RFID Journal, January 20, 2021 https://www.rfidjournal.com/iot-predictionsfor-a-post-pandemic-world
- Megan Brown, Boyd Garriott, Sam Kaplan and Kathleen Scott, "2021 Preview: How the Private Sector Will be Impacted by IoT Cybersecurity Work at NIST," JS Supra, January 15, 2021 https://www.jdsupra.com/legalnews/2021-preview-how-the-private-sector-5841423/
- Åsa Tamsons, "**My IoT predictions for 2021: Smarter tech will make better business**," Ericsson, January 15, 2021 https://www.ericsson.com/en/blog/2021/1/iot-predictions-2021
- Knut Lasse Lueth, "IoT 2020 in Review: The 10 Most Relevant IoT Developments of the Year," IoT Analytics, January 12, 2021 https://iotanalytics.com/iot-2020-in-review/

## **Selected IoT Perspectives**

#### The Internet of Things and Precision/Smart Agriculture/Farming

- Fast Company, "Smart Farming: the Growing Role of Precision Agriculture and Biotech," Persihable News, January 8, 2021 https://www.perishablenews.com/produce/smart-farming-the-growing-role-of-precision-agriculture-and-biotech/
- Ranjeet Koul, "Smart Farming: How IoT-Driven Precision Agriculture Helps Feed the Globe," Express Computer, October 29, 2020 https://www.expresscomputer.in/guest-blogs/smart-farming-how-iot-driven-precision-agriculture-helps-feed-the-globe/68180/
- SciForce, "Smart Farming: The Future of Agriculture," IoT for All, June 22, 2020 https://www.iotforall.com/smart-farming-future-of-agriculture

**Research background info:** ICSAIT 2021: 15. International Conference on Smart Agriculture and Internet of Things, Nev York City, January 28-29, 2021 F https://waset.org/smart-agriculture-and-internet-of-things-conference-in-january-2021-in-new-york; Giuliano Vitali, Matteo Francia, Matteo Golfarelli, and Maurizio Canavari, "Crop Management with the IoT: An Interdisciplinary Survey," Agronomy, published January 18, 2021 https://www.mdpi.com/2073-4395/11/1/181; França Reinaldo Padilba, Ana Carolina Borges Monteiro, Rangel Arthur, and Yuzo Iano, "An Overview of Internet of Things Technology Applied on Precision Agriculture Concept," In Precision Agriculture Technologies for Food Security and Sustainability. edited by Sherine M. Abd El-Kader, and Basma M. Mohammad El-Basioni, 47-70. Hersbey, PA: IGI Global, 2021 https://nww.igiglobal.com/gateway/chapter/265201 (online January 2021); Katherine LoPiccalo, "Impact of Broadband Penetration on U.S. Farm Productivity," OEA Working Paper 50, FCC, December 15, 2020 https://docs.fcc.gov/public/attachments/DOC-368773A1.pdf; Ofori, M., & El-Gayar, O. (2020), "Drivers and challenges of precision agriculture: a social media perspective," Precision Agriculture, 1-26, online October 4, 2020 https://scholar.dsu.edu/egi/viewroatent.egi?article=1165&context=bispapers; Internet Innovation Alliane, "Economic Benefits of Broadband Expansion

for Precision Ag Technologies Could Reach \$23 Billion Annually," [Report from U.S. Department of Agriculture], IIA, September 23, 2020 https://internetinnovation.org/general/research-peek-of-the-week-economic-benefits-of-broadband-expansion-for-precision-ag-technologies-could-reach-23-billion-annually/; Emerson Navarro, Nuno Costa, and António Pereira, "A Systematic Review of IoT Solutions for Smart Farming," Sensors (Basel), 2020 Aug; 20(15): 4231, Published online July 29, 2020 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7436012/; Special Issue of "Sensors" "Internet-of-Things for Precision Agriculture (IoAT)", June 2019 https://www.mdpi.com/journal/sensors/special\_issues/IoAT - For Information: International Society of Precision Agriculture https://www.ispag.org/ and NSF Engineering Research Center for the Internet of Things for Precision Agriculture (University of Pennsylvania, Purdue University, University of California Mereced, and University of Florida) https://iot4ag.us/

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