GT CDAIT
Biweekly IoT News Digest (08/20 – 1)

August 2020 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 08/15/20 – 407 entries:

https://cdait.gatech.edu/sites/default/files/covid-19_iot_january_august_15_2020.pdf

U.S. GOVERNMENT & THE INTERNET OF THINGS

Departments of Homeland Security and Commerce provided in July 2020 an update to the initial November 2018 road map report addressing botnets, automated and distributed attacks:

Cybersecurity & Infrastructure Security Agency (CISA) July 30, 2020 press release (including report) on "Botnet road map status update," is available at:

https://www.cisa.gov/blog/2020/07/30/botnet-road-map-status-update

Note: The Internet of Things is an important component of the road map including five "lines of effort", i.e.,

1. Internet of Things (IoT);
2. Enterprise;
3. Internet Infrastructure;
4. Technology Development and Transition; and
5. Awareness and Education.

The July 2020 update follows the U.S. Department of Commerce & U.S. Department of Homeland Security's "A Road Map Toward Resilience Against Botnets," published on November 29, 2018," which is available at:

https://www.commerce.gov/sites/default/files/2018-11/Botnet%20Road%20Map%20112918%20for%20posting_1.pdf

IoT News and Market Reports
(First Half of August 2020)

- Selected **IoT-related announcements and featured activities/topics in the first half of August 2020** gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world – 11 entries – See: https://cdait.gatech.edu/sites/default/files/iot_news_filings_august_2020_first_half.pdf

- Sample list of **IoT-related market reports published in the first half of August 2020** gathered by CDAIT– 56 entries – See: https://cdait.gatech.edu/sites/default/files/iot_market_reports_august_2020_first_half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- A. Rezvanitabar, G. Jung, Y. S. Yaras, F. L. Degertekin and M. Ghovanloo, **"A Power-Efficient Bridge Readout Circuit for Implantable, Wearable, and IoT Applications,"** in IEEE Sensors Journal, vol. 20, no. 17, pp. 9955-9962, 1 Sept.1, 2020, doi: 10.1109/JSEN.2020.2992476, https://ieeexplore.ieee.org/abstract/document/9086622 Ahmad Rezvanitabar and Yusuf Samet Yaras are with the School of Electrical and Computer Engineering; F. Levent Degertekin is with the School of Electrical and Computer Engineering, and also with the G. W. W. School of Mechanical Engineering, all at Georgia Tech.

- Margaret E. Kosal (Editor), **"Disruptive and Game Changing Technologies in Modern Warfare,"** Springer, 2020 https://doi.org/10.1007/978-3-030-28342-1 and https://link.springer.com/book/10.1007%2F978-3-030-28342-1 Dr. Kosal is Associate Professor at the Sam Nunn School of International Affairs within the Ivan College of Liberal Arts at Georgia Tech.

IMPORTANT DEADLINE: Officials of the U.S. Defense Advanced Research Projects Agency (DARPA) in Arlington, Va., have issued a small-business innovation research (SBIR) solicitation (HR001120S0019-21) on Tuesday, August 11, 2020 for the Cryptography for Hyper-scale Architectures in a Robust Internet Of Things (CHARIOT) project. Responses: no later than September 29, 2020.

Special Reading Suggestions

Articles

- Olivier Pauzet, **"Why IIoT [Industrial Internet of Things] Projects Fail,"** IoT for All, August 5, 2020 https://www.iotforall.com/why-iiot-projects-fail/

- Analytics Insight Latest News, **"Why 2020 Is The Right Year For Businesses To Make An Investment In IoT,"** Analytics Insight, August 3, 2020 https://www.analyticsinsight.net/why-2020-is-the-right-year-for-businesses-to-make-an-investment-in-iot/

Books

- Bernard RMarr, **"Tech Trends in Practice: The 25 Technologies that are Driving the 4th Industrial Revolution,"** 1st Edition, Wiley, June 30, 2020 (304 pages) https://www.bernardmarr.com/default.asp?contentID=2033

- Scott J. Shackelford, **"The Internet of Things: What Everyone Needs to Know®,"** Oxford University Press, June 2020 (256 pages) https://global.oup.com/academic/product/the-internet-of-things-9780190943806?lang=en&cc=us

Selected IoT Perspectives

IoT "bricking" impact, or what happens when an IoT device or capability is no longer supported?

- Steve Durbin, **"The Internet of Forgotten Things Will Leave a Dangerous Legacy,"** AIthority, July 22, 2020 https://aithority.com/internet-of-things/the-internet-of-forgotten-things-will-leave-a-dangerous-legacy/

- Jim Turley, **"Revenge of the IoT Failures IV -- Connected Devices Work Only as Long as Their Makers Want Them to,"** Electronic Engineering Journal, July 21, 2020 https://www.eejournal.com/article/revenge-of-the-iot-failures-iv/

- Susan Lechelt, Katerina Gorkovenko, Luis Lourenço Soares, Chris Speed, James K. Thorp, and Michael Stead, DIS' 20 **"Designing for the End of Life of IoT Objects,"** Companion: Companion Publication of the 2020 ACM Designing Interactive Systems Conference, July 2020, Pages 417–420, https://doi.org/10.1145/3393914.3395918 and https://dl.acm.org/doi/pdf/10.1145/3393914.3395918

Background info: Jessica Rich, FTC Bureau of Consumer Protection (until 2017), **"What happens when the sun sets on a smart product,"** *FTC, July 2016, https://www.ftc.gov/news-events/blogs/business-blog/2016/07/what-happens-when-sun-sets-smart-product; Natasha Tusikov,* **"Regulation through "bricking": private ordering in the "Internet of Things,"** *Internet Policy Review, June 18, 2019 https://policyreview.info/articles/analysis/regulation-through-bricking-private-ordering-internet-things - "Bricking typically describes an electronic device's loss of functionality in which it is rendered permanently inoperable..In this article, bricking refers more narrowly to manufacturer-pushed software interruption or impairment that has the intention of negatively affecting product functionality," and Stacey Higginbotham,* **How to handle the end of 3G networks for your IoT devices**, *Stacey on IoT Blog, August 10, 2020 https://staceyoniot.com/how-to-handle-the-end-of-3g-networks-for-your-iot-devices/*

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