

June 2020 Highlights

# GT CDAIT Biweekly IoT News Digest (06/20 – 2)

Georgia Tech IoT-related

Info/Research Noticed by CDAIT

• Changsheng Wu, Peng Jiang, Wei Li, Hengyu Guo, Jie Wang, Jie Chen,

Transdermal Drug Delivery System Driven and Regulated by

Biomechanical Motions," Advanced Functional Materials, 2020

https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201907378

Farrokh Ayazi, Haoran Wen, Anosh Daruwalla, and Pranav Gupta,

"Environmentally-Robust High-Performance Silicon TIMU

Science and Engineering at Georgia Tech

Mark R. Prausnitz, and Zhong Lin Wang, "Self-Powered Iontophoretic

https://doi.org/10.1002/adfm.201907378 -- Dr. C. Wu, Dr. P. Jiang, Dr.

H. Guo, J. Chen, and Prof. Z. L. Wang are with the School of Materials

(Timing and Inertial Measurement Unit) Chip", Published in: 2020

IEEE/ION Position, Location and Navigation Symposium (PLANS),

pp. 16-23, doi: 10.1109/PLANS46316.2020.9110162 added to IEEE

Pranav Gupta are with the College of Engineering at Georgia Tech

Xplore on June 8, 2020 https://ieeexplore.ieee.org/document/9110162 -- Dr. Farrokh Ayazi, Dr. Haoran Wen, Dr. Anosh Daruwalla, and Dr.

## **IoT News and Market Reports**

(Second Half of June 2020)

- Selected IoT-related announcements and featured activities/topics in the second half of June 2020 gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world 10 entries See: https://cdait.gatech.edu/sites/default/files/iot\_news\_filings\_j une 2020 second half.pdf
- Sample list of IoT-related market reports published in the second half of June 2020 gathered by CDAIT- 64 entries – See: https://cdait.gatech.edu/sites/default/files/iot\_market\_repor

nttps://cdat.gatecn.edu/sites/derauit/files/10t\_market\_reports\_june\_2020\_second\_half.pdf

#### **Special Reading Suggestions**

#### **Articles**

- Mushtaq Ahmad and Shazia Yousaf, "Operating Systems for Low-End Devices in the Internet of Things," EasyChair Preprint, June 16, 2020 https://easychair.org/publications/preprint/1plD
- Patrick Grossetete,"IoT and the Network: What is the future?" Cisco Website, June 22, 2020 https://blogs.cisco.com/networking/iot-and-the-network-what-is-the-future
- Iain Morris, "How NB-IoT bombed: An IoT tale of hubris and no-show," Light Reading, June 25, 2020 https://www.lightreading.com/iot/how-nb-iot-bombed-an-iot-tale-of-hubris-and-no-show/a/d-id/761969

#### **Books**

- Scott J. Shackleford, "The Internet of Things: What Everyone Needs to Know," Oxford University Press, June 2020, 208 pages https://books.google.com/books/about/The\_Internet\_of\_Things.html?id=g9XTyQEACAAJ
- The Economist/Intelligence Unit "The Internet of Things: Applications for Business Exploring the transformative potential of IoT," eiu website, June 23, 2020, 41 pages pdf report and infographic available here: https://www.eiu.com/n/the-internet-of-things-applications-for-industry/
- John Thornhill, "Summer Books: Technology," Financial Times (UK), June 26, 2020 https://www.ft.com/content/7df43664-b146-11ea-a4b6-31f1eedf762e (Note: Laura Denardis, "The Internet in Everything: Freedom and Security in a World with No Off Switch")

## **Selected IoT Perspectives**

#### The Internet of Things and Sustainability

- Connected World Editorial, "Pursuing Sustainability One Smart Home, One Connected Community at a
  Time," Connected World ("It's All about IoT"), June 2020 https://connectedworld.com/- pdf available here:
  https://cdait.gatech.edu/sites/default/files/connected\_world\_magazine\_june\_2020\_sustainability\_smart\_homes\_connected\_commu
  ities.pdf and also Peggy Smedley, "IoT and the Circular Economy," Connected World, June 10, 2020
  https://connectedworld.com/iot-in-sustainability-and-circular-economy/
- Industrial Internet Consortium and IoT Alliance Australia, "How Digital Transformation and IoT Can Contribute
  to the UN Sustainable Development Goals," White Paper, June 22, 2020
  <a href="https://www.iiconsortium.org/pdf/IIC\_IOTAA\_DX\_UN\_SDG\_White\_Paper\_2020-06-22.pdf">https://www.iiconsortium.org/pdf/IIC\_IOTAA\_DX\_UN\_SDG\_White\_Paper\_2020-06-22.pdf</a>

Articles related to CDAIT's conference at Georgia Tech on IoT and Sustainability in July 2019:

- a) David Greenfield, "The Intersection of IoT and Sustainability -- Georgia Tech hosts an event connecting the dots between the corporate and societal digital transformations," Automation World, August 6, 2019, https://www.automationworld.com/article/industry-type/all/intersection-i...
- b) Alan Varghese, "The first to be second: Scaling from IoT pilots to mass deployments to sustainability," LinkedIn Blog July 21, 2019, https://www.linkedin.com/pulse/first-second-alan-a-varghese/
- c) Alain Louchez (invited bylined article at the request of the International Telecommunication Union [ITU], United Nations), "Why it makes business sense to link the Internet of Things and sustainability," ITU News, July 25, 2019 https://news.itu.int/business-sense-link-internet-things-sustainability and
- d) Denise Ward, "CDAIT Hosts Forum to Explain Why IoT for Sustainability is Smart Business," Georgia Tech News Center, July 19, 2019 https://news.gatech.edu/2019/07/19/georgia-tech-cdait-hosts-forum-explai...

#### COVID-19 & The internet of things

Some perspectives gathered by CDAIT on the use of IoT technologies in preventing and monitoring COVID-19 like infectious diseases & impact on IoT – as of 06/30/20 – 330 entries:

https://cdait.gatech.edu/sites/default/files/covid-19\_iot\_january\_june\_30\_2020.p

## DIGITAL DIVIDE & THE INTERNET OF THINGS

Heating, Ventilating & Plumbing (UK), "Insight: Examining perceptions of smart sensors in the social housing sector," HVP Mag, June 17, 2020

https://www.hvpmag.co.uk/Examining perceptions-of-smart-sensors-in-thesocial housing sector/11936

Evelyn Remaley, "NTIA Data Reveal Shifts in Technology Use, Persistent Digital Divide, "NTIA, June 10, 2020 https://www.ntia.gov/blog/2020/ntia-data-reveal-shifts-technology-use-persistent-digital-divide

## SECURITY RISKS &

IoT threats and vulnerabilities identified in May-June 2020 (Kaiji, CallStranger, Ripple 20 and cybersecurity issues with IoT medical devices) + IoT Security Guidance Reports issued by the National Institute of Standards of Technology (NIST) in June 2020

https://cdait.gatech.edu/sites/de fault/files/iot\_threats\_security\_ju ne\_2020.pdf

