

# **GT CDAIT** Biweekly IoT News Digest (10/23 - 1)

CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES Some biweekly perspectives from around the globe

gathered by CDAIT (1750 entries since April 1, 2022) https://cdait.gatech.edu/sites/def ault/files/2023-10/Digital\_Transformation\_Throu gh\_IoT\_Technologies\_October\_15

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**GOVERNANCE &** THE INTERNET OF THINGS Apu Pavithran, "EU, US, and Now NATO: Big Changes in IoT Cybersecurity," Spiceworks, October 11, 2023 https://www.spiceworks.com/tech/iot/guest-article/eu-us-and-now-

Ryan Tracy, "THE FUTURE OF EVERYTHING - Your Medical Devices Are Getting Smarter. Can the FDA Keep Them Safe?

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Johnny Wood, "This is the state of digitalization in Europe in 2023 - Eurostat report," European Sting [and 3, 2023

Jerry Petersen, "Sen. Warner Seeks Update From OMB on Legally-Mandated IoT Policy Review," ExecutiveGov, September 29, 2023 9/sen-warner-seeks-update-from-omb-on-legally-mandated-iot-

### **IoT News and Market Reports**

(First Half of October 2023)

- Selected IoT-related announcements and featured activities/topics gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world - 15 entries: https://cdait.gatech.edu/sites/default/files/2023- $10/IoT\_News\_Filings\_October\_2023\_First\_Half.pdf$
- Sample list of IoT-related market reports gathered by CDAIT 66 entries: https://cdait.gatech.edu/sites/default/files/2023-10/IoT\_Market\_Reports\_October\_2023\_First\_Half.pdf

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

- Marques da Rosa, V., Fogliatto, F.S., Saurin, T.A., Tortorella, G.L., and Tonetto. L.M.(2023) "Transforming resilient healthcare systems: mapping the pathway forward with healthcare 4.0 technologies," in De Sainz, D., Galluzzo, L., Rizzo, F., Spallazzo, D. (eds.), IASDR 2023: Life-Changing Design, 9-13 October, Milan, Italy. https://doi.org/10.21606/iasdr.2023.133
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- Biehler, Michael, Reinaldo Mock, Shriyanshu Kode, Maham Mehmood, Palin Bhardwaj, and Jianjun Shi. "**AUDIT: Functional Qualification in Additive** Manufacturing via Physical and Digital Twins," Journal of Manufacturing Science and Engineering: 1-59 (online October 4, 2023) https://asmedigitalcollection.asme.org/manufacturingscience/article-

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OF NOTE: 10T Tech Expo Global, London, UK, November 30 - December 1, 2023 https://www.iottechexpo.com/global/ (see related article: TechEx, "IoT Tech Expo Global Returns to London: A Glimpse into the Future of IoT," IoT for All, October 10, 2023 https://www.iotforall.com/press-releases/iot-tech-expo-global-returns-to-london-alimpse-into-the-future-of-iot) -- TIME Reveals Inaugural TIME100 AI List of the World's Most Influential People in Artificial Intelligence, September 7, 2023  $(October\ 9,\ 2023\ issue)\ https://www.prnewswire.com/news-releases/time-reveals-inaugural-time 100-ai-list-of-the-worlds-most-influential-people-in-artificial-intelligence-301920536.html$ 

#### **Special Reading Suggestions**

- Tajammul Pangarkar, "The Internet of Things Now Utilizes AI for Data Analysis and Decision-Making," Scoop, October 10, 2023 https://scoop.market.us/the-internet-
- Rafal Kupis, "Smart grid: IoT predictive maintenance guide," Smart Energy International, October 9, 2023 https://www.smart-energy.com/industry-sectors/smart-gridindustry-sectors/smart-grid-iot-predictive-maintenance-guide
- Apoorv Gehlot "Top 50 Internet of Things (IoT) Companies in USA," Medium, October 5, 2023 https://apoorv-gehlot.medium.com/top-internet-of-things-iot-companies-inusa-0139642a968 Jasmeet Singh, "Enjoy the Ride: Cars and Drives Are Better With the IoT," Spiceworks, October 5, 2023 https://www.spiceworks.com/tech/iot/guest-article/enjoy-the-ride-
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## **Selected IoT Perspectives IoT and Digital Twins in 2023**

"This innovative approach to leveraging IoT data has revolutionized the way we design, develop, and manage complex systems. At its core, a digital twin is a virtual representation of a physical object, process, or system. It is created by combining real-time data from sensors, devices, and other sources with advanced analytics. This virtual replica mirrors the physical entity, allowing for real-time monitoring, analysis, and optimization. Whether it's a machine on a factory floor, a building, or even an entire city, digital twins provide invaluable insights and capabilities. They enable businesses to optimize operations, improve efficiency, and make data-driven decisions. With the power of IoT, digital twins are becoming increasingly sophisticated and transformative." Bonnee Trinidad, "What Is A Digital Twin In IoT," Robots.net, September 16, 2023 https://robots.net/tech/what-is-a-digital-twin-in-iot/

- Harrald Remmert, "The Benefits of Digital Twins in Utilities," Quality Digest, September 7, 2023 https://www.gualitydigest.com/inside/innovation-article/benefits-digital-twins-utilities-090723.html
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- Rebekah Carter, "The Hottest Trends in Digital Twins for 2023," XR Today, July 19, 2023 The Hottest Trends in Digital Twins for 2023 https://www.xrtoday.com/mixed-reality/the-hottest-trends-in-digital-twins-for-2023
- Mohammad Hassan, "Decoding Digital Twins: Exploring the 6 main applications and their benefits," IoT Analytics, March 7, 2023 https://iot-analytics.com/6-main-digital-twin-applications-and-their-benefits
- Tamal Das, "What is Digital Twin and Why is it Important in IoT?" Geekflare, January 4, 2023 https://geekflare.com/digital-twin-technology/

Research background info (sample): Xu, Hansong, Jun Wu, Qianqian Pan, Xinping Guan, and Mohsen Guizani, "A Survey on Digital Twin for Industrial Internet of Things: Applications, Technologies and Tools," IEEE Communications Surveys & Tutorials (2023)

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https://ieeexplore.ieee.org/abstract/document/10091890; Marks, Ian, Pinon Fischer, Olivia, Mavris, Dimitri, and Fehrenbacher, Noah. (2023), "Assessing the Value of Digital Twins In a Multi-Agent Dynamic Decision-Making Context," https://arc.aiaa.org/doi/10.2514/6.2023-1403 --- See also: Digital Twin Consortium https://www.digitaltwinconsortium.org/



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