

Digest is compiled by Alain Louchez, CDAIT Co-founder & Director Emeritus

# THROUGH INTERNET OF THINGS TECHNOLOGIES

TECHNOLOGIES

Some biweekly perspectives on DT

from around the globe gathered by
CDAIT - 50 added for this Digest
(3100 entries since April 1, 2022)

https://cdait.gatech.edu/sites/default
/files/2024
11/Digital\_Transformation\_Through\_I

oT\_Technologies\_November\_30\_2024.

pdf

## GOVERNANCE & THE INTERNET OF THINGS

Boston University Metropolitan
College press release, "MET
Cybersecurity Program Earns
Department of Justice Research
Grant to Develop Internet of
Things Investigation Training
Courses," Boston University,
November 25, 2024
https://www.bu.edu/met/news/metcybersecurity-program-earnsdepartment-of-justice-research-grantto-develop-internet-of-thingsinvestigation-training-courses/

Captain Compliance posting,
"Contextual Privacy Policies
(CPP): The Next Evolution in Data
Governance," Captain Compliance,
November 25, 2024
https://www.captaincompliance.com/e
ducation/contextual-privacy-policiescpp-the-next-evolution-in-datagovernance/

Jatin Grover, "Self-regulation in AI models on the cards -- The TEC [India's Telccom Engineering Centre] has recommended a risk-based approach to evaluate robustness of AI systems, which is similar to the European Union Artificial Intelligence Act," Financial Express, November 23, 2024

https://www.financialexpress.com/bus iness/digital-transformation-self-regulation-in-ai-models-on-the-cards-

Harsh Gour, "Guarding the IoT frontier: Cybersecurity risks and strategies," The Leaflet [India], November 22, 2024 https://theleaflet.in/digital-rights/law-and-technology/guarding-the-iot-frontier-cybersecurity-risks-

Stuart Frost on the Evolution of Data Management in Industrial

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"Understanding the Importance of Industrial IoT Data Management," NIT, November 17, 2024 https://northiowatoday.com/2024/11/ 17/understanding-the-importance-of-industrial-iot-data-management/

# **GT CDAIT**

# Biweekly IoT News Digest (11/24 - 2)

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

(Second Half of November 2024)

- 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/2024-11/IoT\_News\_Filings\_November\_2024\_Second\_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT 50 entries: https://cdait.gatech.edu/sites/default/files/2024-11/IoT\_Market\_Reports\_November\_2024\_Second\_Half.pdf

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

- Zhu, Yue, "A Comprehensive Framework for Multimodal Sensor Fusion in Intelligent Manufacturing: Innovations, Interpretability, and Real-world Applications," Journal of Computer Technology and Applied Mathematics 1, no. 4 (2024): 36-46 https://www.suaspress.org/ojs/index.php/JCTAM/article/view/v1n4ao5
- Wu, Ziqing, Raphaël Oger, Matthieu Lauras, Louis Faugère, and Benoit Montreuil, "A Methodology for Designing a Decision Support System for Hyperconnected Circular Supply Chain Network Design," In Working Conference on Virtual Enterprises, pp. 245-258. Cham: Springer Nature Switzerland, 2024 https://link.springer.com/chapter/10.1007/978-3-031-71743-7\_16
- Liu, Chao, Rui Gu, Jiahong Yang, Lin Luo, Mingxia Chen, Yao Xiong, Ziwei Huo et al. "A Self-Powered Dual Ratchet Angle Sensing System for Digital Twins and Smart Healthcare," Advanced Functional Materials (2024): 2405104 https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.202405104

OF NOTE: Kathy Pretz, "Predictions From IEEE's 2024 Technology Megatrends Report AI, digital transformation, and sustainability will reshape society," IEEE Spectrum, November 16, 2024 https://spectrum.ieee.org/preieee-2024-technology megatrends-report; Transforma Insights posting, "Transforma Insights Announces IoT Transition Topics for 2025," IoT for all, November 19, 2024 https://www.iotforall.com/press-releases/transforma-insights-announces-iot-transition-topics-for-2025

#### **Special Reading Suggestions**

- James Blackman, "Has cellular IoT failed? Is it destined to fail? Big questions after AT&T axes NB-IoT," RCR Wireless, November 26, 2024 https://www.rcrwireless.com/20241126/internet-of-things-4/end-nb-iot-att
- Angela Scott-Briggs, "The Role of Telecom in Driving IoT Adoption Across Industries," TechBullion, November 26, 2024 https://techbullion.com/the-role-oftelecom-in-driving-iot-adoption-across-industries/
- Simon Wright, "IoT: Why Surfing the Internet of Things Wave is a Giant Channel Opportunity," Unified Communications Today, November 26, 2024 https://www.uctoday.com/unified-communications/iot-why-surfing-the-internet-of-things-wave-is-a-giant-channel-opportunity-gamma/
- London Daily News (LDN) posting, "Transforming healthcare with IoT: From remote monitoring to smart hospitals," LDN, November 23, 2024 https://www.londondaily.news/transforming-healthcare-with-iot-from-remote-monitoring-to-smart-hospitals/
- Praveen Arora, "IoT asset tracking: Redefining efficiency in Indian manufacturing," Manufacturing Today, November 22, 2024 https://www.manufacturingtodayindia.com/iot-asset-tracking-redefining-efficiency-in-indian-manufacturing
- Mike Dano, "AT&T to discontinue NB-IoT, but T-Mobile and Verizon keep the faith," LightReading, November 20, 2024 https://www.lightreading.com/iot/at-t-to-discontinue-nb-iot-but-t-mobile-and-verizon-keep-the-faith
- Business World posting, "Internet of Things (IoT) Conference 2024 revs up the movement toward smarter IoT-ready Philippines," Business World, November 19, 2024 https://www.bworldonline.com/spotlight/2024/11/19/635919/internet-of-things-iot-conference-2024-revs-up-the-movement-toward-smarter-iot-ready-philippine
- Kunal Garg, "Harnessing IoT and Real-Time Diagnostics: Accelerating EV Adoption in India with Affordable," Timestech, November 18, 2024 https://timestech.in/harnessing-iot-and-real-time-diagnostics-accelerating-ev-adoption-in-india-with-affordable/
- Rebecca, "TechnologyIoT Revolution: The Most Groundbreaking Industrial Applications Reshaping Manufacturing in 2024," Tech Bullion, November 18, 2024 https://techbullion.com/iot-revolution-the-most-groundbreaking-industrial-applications-reshaping-manufacturing-in-2024/

### **Selected IoT Perspectives** The Internet of Things in buildings

"The rise of the Internet of Things (IoT) is reshaping industries worldwide, and building management systems (BMS) are no exception. Traditionally, BMS has been centered on manual operations and isolated systems, often leading to inefficiencies and increased operational costs. Today, IoT-enabled smart building technology is transforming how buildings are managed, making them more efficient, sustainable, and responsive." IoT Business News posting, "How IoT is Revolutionizing Building Management Systems," IoT Business News, September 26, 2024 https://iotbusinessnews.com/2024/09/26/70780-how-iot-isrevolutionizing-building-management-systems/

- Akensa AG posting, "How IoT Sensors Optimize a Building Management System," IoT for all, November 13, 2024 https://www.iotforall.com/how-iot-sensors-optimize-a-building-management-system
- Alex Passett, "Learn About All Things LoRa and In-Building Connectivity at IoT Evolution Expo 2025," IoT Evolution World, October 25, 2024 https://www.iotevolutionworld.com/iot/articles/461186-learn-all-things-lora-in-building-connectivity-iot.htm
- 7Nox posting, "The Future of Building Internet of Things (BIoT): Transforming Smart Buildings," 7Nox, August 1, 2024 https://7nox.com/the-future-of-building-internet-of-things-biot-transforming-smart-buildings/
- Fred Whipp, "How IoT Sensors and AI are Revolutionizing Smart Buildings," Buildings, April 10, 2024 https://www.buildings.com/smartbuildings/iot/article/55010925/how-iot-sensors-and-ai-are-revolutionizing-smart-buildings

Research background info (sample) - 2024 sources: Chaudhari, Pratiksha, Yang Xiao, Mark Ming-Cheng Cheng, and Tieshan Li, "Fundamentals, Algorithms, and Technologies of Occupancy Detection for Smart Buildings Using IoT Sensors," Sensors 24, reundamentais, Algorithms, and Technologies of Occupancy Detection for Smart Buildings Using 161 Sensors, Sensors 24, no. 7 (2024): 2123 https://www.mdpi.com/1424-8220/24/7/2123; Ożadowicz, Andrzej, "Generic IoT for Smart Buildings and Field-Level Automation—Challenges, Threats, Approaches, and Solutions," Computers 13, no. 2 (2024): 45 https://www.mdpi.com/2073-431X/13/2/45; Raman, Ravi Shankar, A. B. Gurulakshmi, Lavish Kansal, Ramesh Banoth, Ankit Meheta, Ali Abdulhussein Hameed, and K. Maniraj, "The Future of Smart Buildings: Integration of IoT in Construction Engineering," In E3S Web of Conferences, vol. 552, p. 01128. EDP Sciences, 2024 https://www.e3s-conferences.org/articles/e3sconf/abs/2024/82/e3sconf\_icmpc2024\_01128/e3sconf\_icmpc2024\_01128.html; Ahsan Waqar, Nasir Shafiq, Idris Othman, Saleh Hamed Alsulamy, Abdullah Mohammed Alshehri, Ibrahim Idris Falqi, "Deterrents to the IoT for smart buildings and infrastructure development: A partial least square modeling approach," Heliyon, Volume 10, Issue 10, 2024, e31035, ISSN 2405-8440, https://doi.org/10.1016/j.heliyon.2024.e31035; Khan, A.M., Alrasheed, K.A., Waqar, A. et al. "Internet of things (IoT) for safety and efficiency in construction building site operations," Scientific Reports 14, 28914 (2024) https://doi.org/10.1038/s41598-

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