MANUFACTURING'S ROADMAP FOR THE INTERNET OF THINGS AND EDGE CLOUD COMPUTING

Dr. Shambhu Bhardwaj*

*Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, INDIA Email id: shambhu.bhardwaj@gmail.com DOI: 10.5958/2249-7137.2021.02563.5

ABSTRACT

The industrial Internet, often known as the Internet of Things (IoT), is a new Internet development for industry. It entails integrating potentially billions of sensors, cameras, industrial machines, displays, smartphones, and other smart communicating devices (collectively referred to as "things") into cloud datacenters and processing their data in real time on elastic and virtualized cloud resources in order to automate the end-to-end manufacturing lifecycle. Industry consortiums all around the globe are working hard to create and promote an open, standards-based smart manufacturing facility based on the Industry 4.0 vision (the fourth industrial revolution). Industry 4.0, according to Wikipedia, "includes a variety of modern automation, data sharing, and manufacturing technologies. Increased availability of omnipresent, ever-shrinking, low-cost devices such as sensors, smartphones, and wearables; ubiquitous Internet connection and cloud computing services; and pressure on industry to develop quicker to retain competitive edge are driving the IoT's rapid growth.

KEYWORDS: Automation, Cloud Computing, Internet of Things, Manufacturing, Optimization.

REFERENCES

- **1.** Ashton K. That "Internet of Things" Thing: In the Real World, Things Matter More than Ideas. RFID Journal. 2014.
- 2. Sharma P, Berwal YPS, Ghai W. Enhancement of plant disease detection framework using cloud computing and gpu computing. Int J Eng Adv Technol. 2019;
- **3.** Kevin A. That ' Internet of Things ' Thing- In the real world, things matter more than ideas. RFiD J. 2010;
- **4.** Ashton Kevin. That "Internet of Things" Thing 2009-06-22 Page 1 RFID Journal. RFID Journal. 2009.
- **5.** Sharma P, Berwal YS, Ghai W. Krishimitr: A cloud computing and platform for disease detection in agriculture. Int J Innov Technol Explor Eng. 2019;
- 6. Rik Goodwin. Making Cities Better Making Cities Smarter. Fybr. 2014;
- 7. Diego M. Journalism and Ethics Ethics in Journalism in the Era of Prolific Sources. Acad Int Sci J. 2010;
- **8.** Curry MR. Discursive Displacement and the Seminal Ambiguity. In: The Handbook of New Media: Social Shaping and Consequence of ICT. 2002.

- **9.** Bansal N, Maurya A, Kumar T, Singh M, Bansal S. Cost performance of QoS Driven task scheduling in cloud computing. In: Procedia Computer Science. 2015.
- **10.** Adam A. Book Review: eTrust: Forming Relationships in the Online World. Sociol Rev. 2010;
- 11. Marginson S. "The Rise of the Global University: 5 New Tensions." Chron High Educ. 2010;
- **12.** Jain N, Awasthi Y. WSN-AI based Cloud computing architectures for energy efficient climate smart agriculture with big data analysis. Int J Adv Trends Comput Sci Eng. 2019;
- **13.** Bansal N, Awasthi A, Bansal S. Task scheduling algorithms with multiple factor in cloud computing environment. In: Advances in Intelligent Systems and Computing. 2016.
- **14.** Barker TS. Information and Atmospheres: Exploring the Relationship between the Natural Environment and Information Aesthetics. M/C J. 2012;
- **15.** Singh JP, Mamta, Kumar S. Authentication and encryption in Cloud Computing. In: 2015 International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials, ICSTM 2015 - Proceedings. 2015.
- **16.** Faigl J, Hollinger GA. Autonomous data collection using a self-organizing map. IEEE Trans Neural Networks Learn Syst. 2018;
- **17.** Tyagi N, Rana A, Kansal V. Creating Elasticity with Enhanced Weighted Optimization Load Balancing Algorithm in Cloud Computing. In: Proceedings 2019 Amity International Conference on Artificial Intelligence, AICAI 2019. 2019.
- 18. Fallows J. Why the Maker Movement Matters: Part 2, Agility. The Atlantic. 2016;
- **19.** Tyagi N, Rana A. Fuel your growth with integration: Hybrid cloud computing. Int J Appl Eng Res. 2015;
- **20.** Agarwal N, Rana A, Pandey JP. Fine-grained access control and secured data sharing in cloud computing. In: Advances in Intelligent Systems and Computing. 2018.
- **21.** Agyekum KOBO, Xia Q, Sifah EB, Gao J, Xia H, Du X, et al. A secured proxy-based data sharing module in IoT environments using blockchain. Sensors. 2019;
- **22.** Walia H, Rana A, Kansal V. Case based interpretation model for word sense disambiguation in gurmukhi. In: Proceedings of the 9th International Conference On Cloud Computing, Data Science and Engineering, Confluence 2019. 2019.
- **23.** Ghosh S, Rana A, Kansal V. A Novel Model Based on Nonlinear Manifold Detection for Software Defect Prediction. In: Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018. 2019.
- **24.** Zhang Y. A foundation for the design and analysis of robotic systems and behaviors. ProQuest Dissertations and Theses. 1994.
- **25.** Committee S. IEEE Standard for Software Verification and Validation IEEE Standard for Software Verification and Validation. IEEEInstitute of Electrical and Electronics Engineers. 1998.