

Artificial Intelligence in Automation

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Abstract: Artificial Intelligence (AI) is rapidly advancing and the combination of AI with automation is beginning to transform the business environment. Businesses and organizations are concentrating on combining existing AI with automation processes to achieve new levels of productivity and quality. In this paper, we are going to discuss about artificial intelligence (AI) and automation. We are going to show the audience how both AI and automation are connected and how they work together better and can give you a competitive edge. AI and automation have been merging in recent years, changing the way we do things and manage systems. This research paper looks at how AI and automation work together, what the challenges are, and what the future holds. It starts with the basics of AI and automation and what's needed to make them work together. It then looks at the advances in machine learning, computer vision, and natural language processing, as well as robotics. Finally, it looks at real-world applications like manufacturing, logistics, healthcare, and smart cities, and the benefits of combining AI and automation. It also looks at the challenges and ethical issues that come with it, like job displacement, bias, and transparency in decision-making. Finally, it takes a look at what's missing in the literature and what's next for research in this field.

Keywords: Artificial intelligence

REFERENCES

- [1]. Tzafestas, Spyros and Henk Verbruggen. "Artificial Intelligence in Industrial Decision Making, Control and Automation: An Introduction." Artificial intelligence in industrial decision-making, control and automation. Springer, Dordrecht, 1995. 1-39.
- [2]. K. C. Morris, C. Schlenoff and V. Srinivasan, "Guest Editorial The remarkable resurgence of artificial intelligence and its impact on automation and autonomy," in IEEE Transactions on Automation Science and Engineering, vol. 14, no. 2, pp. 407-409, April 2017. doi: 10.1109/TASE.2016.2640778
- [3]. Nau D.S. (2009) Artificial Intelligence and Automation. In: Nof S. (ed.) Springer Handbook of Automation. Springer Manuals. Springer, Berlin, Heidelberg
- [4]. R. Boire, "artificial intelligence (AI), automation and its impact on data science," 2017 IEEE International Conference on Big Data (Big Data), Boston, MA, 2017, pp. 3571-3574. doi: 10.1109/BigData.2017.8258349
- [5]. Author, David H. (2015) "Why Still Work? A History of Jobs" on Automation and the Future', Journal of Economic Perspectives, 29 (3): 3-30.
- [6]. 1054082769. "What a difference it really makes Automation and artificial intelligence?" Getting Human: The Journal of Artificial Intelligence, 9 Aug. 2018, gethuman.ai/what-is-the-real-difference-between-automation-and-ai-366513e0c910.
- [7]. "A Guide to Robotic Process Automation (RPA)." Google, Google, <https://www.processexcellencenetwork.com/rpaartificial-intelligence/articles/a-guide-to-robotic-processautomation-rpa?>
- [8]. Evans, Grayson. "Solving home automation problems with artificial intelligence technologies." IEEE Transactions on Consumer Electronics 37.3 (1991): 395-400. 10. Samuel, A. L. (1962). Artificial Intelligence: The Frontier of Automation. ANNALS of the American Academy Political and Social Science, 340(1), 10-20.

- [9]. Arcuri, Andrea. "On automating software errors." Partner of the 30th International Software Engineering Conference. ACM, 2008. 12. King, Ross D. et al. "Automating science." Science, 324,5923 (2009): 85-89.