

---

## Subject Bibliography of Industry 4.0

---

### Top 20 highly cited articles:

- Dalenogare, L. S., Benitez, G. B., Ayala, N. F., & Frank, A. G. (2018). The expected contribution of industry 4.0 technologies for industrial performance. *International Journal of Production Economics*, 204, 383-394. doi:10.1016/j.ijpe.2018.08.019
- Frank, A. G., Dalenogare, L. S., & Ayala, N. F. (2019). Industry 4.0 technologies: Implementation patterns in manufacturing companies. *International Journal of Production Economics*, 210, 15-26. doi:10.1016/j.ijpe.2019.01.004
- Hermann, M., Pentek, T., & Otto, B. (2016). Design principles for industrie 4.0 scenarios. Paper presented at the *Proceedings of the Annual Hawaii International Conference on System Sciences*, , 2016-March 3928-3937. doi:10.1109/HICSS.2016.488
- Hofmann, E., & Rüsçh, M. (2017). Industry 4.0 and the current status as well as future prospects on logistics. *Computers in Industry*, 89, 23-34. doi:10.1016/j.compind.2017.04.002
- Kang, H. S., Lee, J. Y., Choi, S., Kim, H., Park, J. H., Son, J. Y., . . . Noh, S. D. (2016). Smart manufacturing: Past research, present findings, and future directions. *International Journal of Precision Engineering and Manufacturing - Green Technology*, 3(1), 111-128. doi:10.1007/s40684-016-0015-5
- Lasi, H., Fettke, P., Kemper, H. -, Feld, T., & Hoffmann, M. (2014). Industry 4.0. *Business and Information Systems Engineering*, 6(4), 239-242. doi:10.1007/s12599-014-0334-4
- Lee, J., Bagheri, B., & Kao, H. -. (2015). A cyber-physical systems architecture for industry 4.0-based manufacturing systems. *Manufacturing Letters*, 3, 18-23. doi:10.1016/j.mfglet.2014.12.001

- Lee, J., Kao, H. -, & Yang, S. (2014). Service innovation and smart analytics for industry 4.0 and big data environment. Paper presented at the *Procedia CIRP*, , 16 3-8.  
doi:10.1016/j.procir.2014.02.001
- Liao, Y., Deschamps, F., Loures, E. F. R., & Ramos, L. F. P. (2017). Past, present and future of industry 4.0 - a systematic literature review and research agenda proposal. *International Journal of Production Research*, 55(12), 3609-3629. doi:10.1080/00207543.2017.1308576
- Lu, Y. (2017). Industry 4.0: A survey on technologies, applications and open research issues. *Journal of Industrial Information Integration*, 6, 1-10. doi:10.1016/j.jii.2017.04.005
- Negri, E., Fumagalli, L., & Macchi, M. (2017). A review of the roles of digital twin in CPS-based production systems. *Procedia Manufacturing*, 11, 939-948.  
doi:10.1016/j.promfg.2017.07.198
- Oesterreich, T. D., & Teuteberg, F. (2016). Understanding the implications of digitisation and automation in the context of industry 4.0: A triangulation approach and elements of a research agenda for the construction industry. *Computers in Industry*, 83, 121-139.  
doi:10.1016/j.compind.2016.09.006
- Oztemel, E., & Gursev, S. (2020). Literature review of industry 4.0 and related technologies. *Journal of Intelligent Manufacturing*, 31(1), 127-182. doi:10.1007/s10845-018-1433-8
- Qi, Q., & Tao, F. (2018). Digital twin and big data towards smart manufacturing and industry 4.0: 360 degree comparison. *IEEE Access*, 6, 3585-3593. doi:10.1109/ACCESS.2018.2793265
- Schumacher, A., Erol, S., & Sihn, W. (2016). A maturity model for assessing industry 4.0 readiness and maturity of manufacturing enterprises. Paper presented at the *Procedia CIRP*, , 52 161-166. doi:10.1016/j.procir.2016.07.040
- Stock, T., & Seliger, G. (2016). Opportunities of sustainable manufacturing in industry 4.0. Paper presented at the *Procedia CIRP*, , 40 536-541. doi:10.1016/j.procir.2016.01.129

- Wang, S., Wan, J., Zhang, D., Li, D., & Zhang, C. (2016). Towards smart factory for industry 4.0: A self-organized multi-agent system with big data based feedback and coordination. *Computer Networks*, *101*, 158-168. doi:10.1016/j.comnet.2015.12.017
- Wollschlaeger, M., Sauter, T., & Jasperneite, J. (2017). The future of industrial communication: Automation networks in the era of the internet of things and industry 4.0. *IEEE Industrial Electronics Magazine*, *11*(1), 17-27. doi:10.1109/MIE.2017.2649104
- Xu, L. D., Xu, E. L., & Li, L. (2018). Industry 4.0: State of the art and future trends. *International Journal of Production Research*, *56*(8), 2941-2962. doi:10.1080/00207543.2018.1444806
- Zhong, R. Y., Xu, X., Klotz, E., & Newman, S. T. (2017). Intelligent manufacturing in the context of industry 4.0: A review. *Engineering*, *3*(5), 616-630. doi:10.1016/J.ENG.2017.05.015

## Top 20 highly cited gold open access articles:

- Alcácer, V., & Cruz-Machado, V. (2019). Scanning the industry 4.0: A literature review on technologies for manufacturing systems. *Engineering Science and Technology, an International Journal*, *22*(3), 899-919. doi:10.1016/j.jestch.2019.01.006
- Almada-Lobo, F. (2015). The industry 4.0 revolution and the future of manufacturing execution systems (MES). *Journal of Innovation Management*, *3*(4), 16-21. doi:10.24840/2183-0606\_003.004\_0003
- Barreto, L., Amaral, A., & Pereira, T. (2017). Industry 4.0 implications in logistics: An overview. *Procedia Manufacturing*, *13*, 1245-1252. doi:10.1016/j.promfg.2017.09.045
- Chen, B., Wan, J., Shu, L., Li, P., Mukherjee, M., & Yin, B. (2017). Smart factory of industry 4.0: Key technologies, application case, and challenges. *IEEE Access*, *6*, 6505-6519. doi:10.1109/ACCESS.2017.2783682
- Dilberoglu, U. M., Gharehpapagh, B., Yaman, U., & Dolen, M. (2017). The role of additive manufacturing in the era of industry 4.0. *Procedia Manufacturing*, *11*, 545-554. doi:10.1016/j.promfg.2017.07.148

- Hecklau, F., Galeitzke, M., Flachs, S., & Kohl, H. (2016). Holistic approach for human resource management in industry 4.0. Paper presented at the *Procedia CIRP*, , 54 1-6.  
doi:10.1016/j.procir.2016.05.102
- Müller, J. M., Kiel, D., & Voigt, K. -. (2018). What drives the implementation of industry 4.0? the role of opportunities and challenges in the context of sustainability. *Sustainability (Switzerland)*, 10(1) doi:10.3390/su10010247
- Negri, E., Fumagalli, L., & Macchi, M. (2017). A review of the roles of digital twin in CPS-based production systems. *Procedia Manufacturing*, 11, 939-948.  
doi:10.1016/j.promfg.2017.07.198
- Pereira, A. C., & Romero, F. (2017). A review of the meanings and the implications of the industry 4.0 concept. *Procedia Manufacturing*, 13, 1206-1214. doi:10.1016/j.promfg.2017.09.032
- Qi, Q., & Tao, F. (2018). Digital twin and big data towards smart manufacturing and industry 4.0: 360 degree comparison. *IEEE Access*, 6, 3585-3593. doi:10.1109/ACCESS.2018.2793265
- Qin, J., Liu, Y., & Grosvenor, R. (2016). A categorical framework of manufacturing for industry 4.0 and beyond. Paper presented at the *Procedia CIRP*, , 52 173-178.  
doi:10.1016/j.procir.2016.08.005
- Roblek, V., Meško, M., & Krapež, A. (2016). A complex view of industry 4.0. *SAGE Open*, 6(2)  
doi:10.1177/2158244016653987
- Rojko, A. (2017). Industry 4.0 concept: Background and overview. *International Journal of Interactive Mobile Technologies*, 11(5), 77-90. doi:10.3991/ijim.v11i5.7072
- Sanders, A., Elangeswaran, C., & Wulfsberg, J. (2016). Industry 4.0 implies lean manufacturing: Research activities in industry 4.0 function as enablers for lean manufacturing. *Journal of Industrial Engineering and Management*, 9(3), 811-833. doi:10.3926/jiem.1940
- Tao, F., Qi, Q., Wang, L., & Nee, A. Y. C. (2019). Digital twins and Cyber-Physical systems toward smart manufacturing and industry 4.0: Correlation and comparison. *Engineering*, 5(4), 653-661. doi:10.1016/j.eng.2019.01.014

Tao, F., & Zhang, M. (2017). Digital twin shop-floor: A new shop-floor paradigm towards smart manufacturing. *IEEE Access*, 5, 20418-20427. doi:10.1109/ACCESS.2017.2756069

Thoben, K. -, Wiesner, S. A., & Wuest, T. (2017). "Industrie 4.0" and smart manufacturing-a review of research issues and application examples. *International Journal of Automation Technology*, 11(1), 4-16. doi:10.20965/ijat.2017.p0004

Uhlemann, T. H. -, Lehmann, C., & Steinhilper, R. (2017). The digital twin: Realizing the cyber-physical production system for industry 4.0. Paper presented at the *Procedia CIRP*, , 61 335-340. doi:10.1016/j.procir.2016.11.152

Vaidya, S., Ambad, P., & Bhosle, S. (2018). Industry 4.0 - A glimpse. *Procedia Manufacturing*, 20, 233-238. doi:10.1016/j.promfg.2018.02.034

Zhong, R. Y., Xu, X., Klotz, E., & Newman, S. T. (2017). Intelligent manufacturing in the context of industry 4.0: A review. *Engineering*, 3(5), 616-630. doi:10.1016/J.ENG.2017.05.015

## Top 10 recent books added in collection:

Afsarmanesh, Hamideh, et al. Boosting Collaborative Networks 4.0: 21st IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2020, Valencia, Spain, November 23-25, 2020, Proceedings. Vol. 598, Springer International Publishing, 2020

Butun, Ismail, et al. Industrial IoT: Challenges, Design Principles, Applications, and Security. Springer International Publishing, 2020

Freitag, Michael, et al. Subject-Oriented Business Process Management. The Digital Workplace - Nucleus of Transformation: 12th International Conference, S-BPM ONE 2020, Bremen, Germany, December 2-3, 2020, Proceedings. Vol. 1278, Springer International Publishing, 2020

Nguyen, Ngoc Thanh, et al. Intelligent Information and Database Systems: 12th Asian Conference, ACIIDS 2020, Phuket, Thailand, March 23-26, 2020, Proceedings, Part I. Vol. 12033, Springer International Publishing, 2020

Popescu, Elvira, et al. Emerging Technologies for Education: 4th International Symposium, SETE 2019, Held in Conjunction with ICWL 2019, Magdeburg, Germany, September 23-25, 2019, Revised Selected Papers. Vol. 11984, Springer International Publishing, 2020

Ronzhin, Andrey, et al. Interactive Collaborative Robotics: 5th International Conference, ICR 2020, St Petersburg, Russia, October 7-9, 2020, Proceedings. Vol. 12336, Springer International Publishing, 2020

Takizawa, Makoto, et al. Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications: 7th International Conference, FDSE 2020, Quy Nhon, Vietnam, November 25-27, 2020, Proceedings. Vol. 1306, Springer Singapore, 2020

Themistocleous, Marinos, et al. Information Systems: 16th European, Mediterranean, and Middle Eastern Conference, EMCIS 2019, Dubai, United Arab Emirates, December 9-10, 2019, Proceedings. Vol. 381, Springer International Publishing, 2020

Wehberg, Gotz G. Digital Supply Chains: Key Facilitator to Industry 4.0 and New Business Models, Leveraging S/4 HANA and Beyond. Routledge, 2021

Welding Technology. Springer, 2021