

Standardization Service for Smart Machine-Building Production in the Context of Industry 4.0

K.I. Porsev¹, FSBEI HE Yaroslavl State Technical University (FSBEI HE YSTU), PhD (Tech.), ram_dva@mail.ru

V.A. Ivanova², FSBEI HE YSTU, Assoc. Prof. Dr. (Tech.), ivanovava@mail.ru

¹ Head of Department, Yaroslavl, Russia

² Director of Institute of Engineering and Mechanical Engineering, Yaroslavl, Russia

Citation: Porsev K.I., Ivanova V.A. Standardization Service for Smart Machine-Building Production in the Context of Industry 4.0, *Kompetentnost' / Competency (Russia)*, 2023, no. 2, pp. 18–21. DOI: 10.24412/1993-8780-2023-2-18-21

key words

standardization service, smart machine-building production, SMART standard, advanced standardization

We have considered one of the significant directions of the Russian Federation national standardization system organizational development, that is the improvement of the standardization services activities at modern industrial enterprises, and have analyzed the list of tasks solved by the standardization service at an industrial enterprise. The key role of the Industry 4.0 concept is determined as the main factor in the complex reorganization of the managing standardization activities processes at machine-building industrial enterprises. We consider it necessary to develop and implement a list of measures to adapt and develop the activities of standardization services in smart machine-building industries in the context of Industry 4.0. A list of organizational and technical measures has been developed to adapt and develop the activities of standardization services at the strategic and operational levels of modern smart machine-building production management.

References

1. Turovets Yu.V., Vishnevskiy K.O., *Biznes-informatika*, 2019, no. 3, pp. 78–96.
2. Federal Law of 29/06/2015 N 162-FZ On standardization in the Russian Federation.
3. Dubina K.N., Barabanova I.A., *Sovremennye materialy, tekhnika i tekhnologii*, 2019, no. 6(27), pp. 38–43.
4. Sokolov S., *Standarty i kachestvo*, 2006, no. 1, pp. 40–45.
5. GOST R 1.15–2017 Standardization in the Russian Federation. Standardization services in organizations. Rules of creation and functioning, Moscow, *Standartinform*, 15 P.
6. Tebekin A.V., Tebekin P.A., Egorova A.A., *Teoreticheskaya ekonomika*, 2021, no. 7(79), pp. 59–73.
7. Raj A., Dwivedi G., Sharma A., Jabbour A., Rajak S., *International Journal of Production Economics*, 2019, vol. 224, 107546 P.
8. Dalenogare L. S., Benitez G. B., Ayala N. F., Frank A. G., *International Journal of Production Economics*, 2018, no. 204, pp. 383–394.
9. Vakhitova A.D., Ufa, *Vestnik nauki*, 2020, pp. 231–236.
10. Lu Y., Xu X., Wang L., 2020, vol. 56, pp. 312–325.
11. Dudareva O.V., Arakcheev D.V., Dudarev D.N., *Organizator proizvodstva*, 2020, no. 4, pp. 7–15.
12. Jamwal A., Agrawal R., Sharma M., Gialanza A., *Applied Sciences*, 2021, vol. 11, 5725 P.
13. Turlakova S.S., *Ekonomika promyshlennosti*, 2019, no. 1(85), pp. 101–122.
14. Shermukhamedov A.T., Kholboev B.M., *Innovatsionnaya ekonomika: perspektivy razvitiya i sovershenstvovaniya*, 2020, no. 7(49), pp. 172–175.
15. GOST R 59799–2021 Smart production. Industry 4.0 reference architecture model (RAMI 4.0), Moscow, Rossiyskiy institut standartizatsii, 2021, 36 P.
16. Nurgaliev R.K., Nurgalieva A.A., *Kompetentnost'*, 2021, no. 7, pp. 31–35.
17. Shvab K., Moscow, *Eksmo*, 2016, 138 P.
18. Guo D., Li M., Lyu Z., Kang K., Wu W., Zhong R., Huang G., *International Journal of Production Economics*, 2021, vol. 238, 108171 P.
19. Pozdneev B.M., Ovchinnikov P.E., Levchenko A.N., Sharovatov V.I., Babenko E.V., *Vestnik MG TU STANKIN*, 2019, no. 2(49), pp. 23–28.
20. Dontsova O.I., *Voprosy innovatsionnoy ekonomiki*, 2022, no. 2, pp. 897–910.
21. Porsev K.I., *Innovatsii v menedzhmente*, 2021, no. 4, pp. 48–53.
22. Dubrovina N.A., *Vestnik Samarskogo universiteta. Ekonomika i upravlenie*, 2021, no. 1, pp. 108–115.
23. Rybakov M.B., Kolesnik G.V., *Sb. materialov 5 Vseross. nauch.-prakt. konf. Ekonomika otrashleykh rynkov: formirovanie, praktika i razvitiye*, 2021, pp. 170–175.
24. Pozdneev B.M., *Standarty i kachestvo*, 2021, no. 4, pp. 50–52.
25. Rykova Yu.A., *Sb. materialov Nats. nauch.-prakt. konf. s mezhd. uchastiem Natsional'nye kontseptsii kachestva: tekhnicheskoe regulirovaniye i standartizatsiya v razvitiii tsifrovoy ekonomiki*, St. Petersburg, 2021, pp. 200–206.
26. Nurgaliev R.K., Shinkevich A.I., *Izvestiya Samarskogo nauchnogo tsentra RAN*, 2021, no. 2, pp. 29–36.