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69.05

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## Формирование инструмента оценки комплексного показателя качества в строительстве

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 10.12.2017, 18.01.2018

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## Formation of complex quality index assessment tool in construction

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*The necessity of forming a tool for assessing the complex quality index in construction is substantiated. It is suggested to use as an instrument such an integral potential of a complex quality index in construction as a set of single potentials. Expert studies have been carried out to identify the main parameters that affect the indices of a single potential. The importance (weight) of the parameters was determined by the method of expert estimates and the theory of mathematical statistics. As the results of the research, the most significant 10 parameters were identified, which affect the quality of the construction site more than 95%. It is proved that in order to assess the quality of construction at different combinations of the selected ten parameters, it is necessary to build 236196 objects. Taking into account the complexity and scale of the construction industry, the implementation of such a plan is impossible. It is proposed to reduce the number of factors using the methodology of factor analysis, as well as the use of similar properties of D-optimal plans in the construction to plan matrix. The direction of further research is determined, giving opportunity in case of use mathematical model to make adjustments to achieve the required levels of quality and reliability in general at any stage of the of the construction project.*

**Key words:** complex quality index in construction; integral potential of complex quality index in construction; single integral potential; expert studies.

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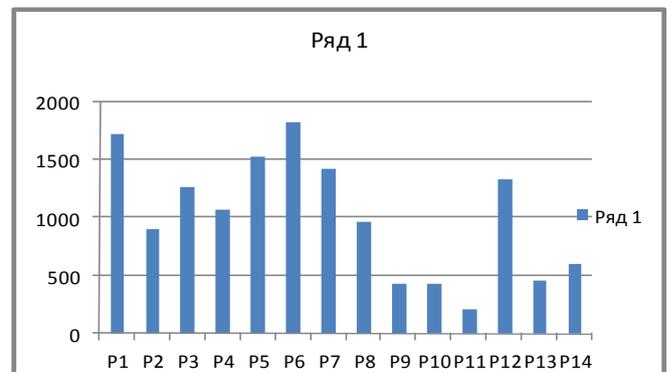
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