

Control based self-adapting algorithms

Irina Kazina

ISMA University of Applied Sciences, Riga, Latvia

Corresponding author's e-mail: irinakazinya@gmail.com

Abstract

The approach of creation of the dynamic control complex of the consequences of the negative impact detected deviations has been explored. Such influences have been determined in the course of the disruption of the functioning of the control system.

Keywords: operational capability, metasytem, current state, goal formation, position

1 Introduction

The proposals for the improvement of the system through detection of the changes come into conflict with the reluctance of their implementation that is caused by negative experience in the implementation of previous proposals [1].

2 Problem state

The problem of the research has been reduced to the impossibility of effective introduction of changes to the system in the absence of the means to determine its performance.

The object of the research is a complex that allows selecting the certain conditions on the basis of which the requirements for diagnostics of the tools that allow determining the organization's performance before and after the detection of large-scale events have been formed [1, 2].

The objective of the research is the development of a procedure for determination of the organization's performance before and after the improvement of the system.

In accordance with the objective, the following tasks have been set:

- 1) To conduct a routine analysis related to the resistance

to the introduction of changes against the background of the disclosure of the consequences of their timely introduction;

- 2) To select the option that allows overcoming the resistance by assessing the damage caused to the system due to unwillingness to introduce and implement the changes;
- 3) To implement a scenario in the medium term focused on the quality maintenance through the rejection of the immediate benefit;
- 4) To disclose the introduced improvements at the operational level in the context of resolution of the identified problems.

3 Results

In the course of resolution of the problems, two systems have been formed. The first subsystem is designed for tracking the negative consequences of the functioning of the organization upon introducing significant changes. The second subsystem provides tracking of the changes occurring in the external environment [3].

References

- [1] Kossiakoff A, Swee N, Seymour S, Bier S 2011 *Systems Engineering Principles and Practice* John Willey & Sons, Inc
- [2] Kazina I, Kopitov R 2019 Self-Adapting Algorithms of the Assessment of the Operational Capability of the Organization *6th International Scientific Conference on Social Sciences and Arts SGEM 2019, Bulgaria, 24 August - 2 September, 2019, Conference Proceeding Book 733-40*
- [3] Trompenaars F, Coebergh P H 2014 *100+ Management Models. How to understand and apply the world's most powerful business tool* Oxford: Infinite Ideas Limited 577 p