

Preparation for the Implementation of the Innovative Project

E. Roganova

Commercial Director of LLC "Video3", a graduate student
Penza State University of Architecture and Construction
the city of Penza, Russian Federation
roganelka@mail.ru

S. Gushchin

General Director of LLC "Penzaplav", a graduate student
Penza State University of Architecture and Construction
the city of Penza, Russian Federation
svogun@yandex.ru

V. Batova

Department of Economics and management
Penza State Technological University
the city of Penza, Russian Federation
batova.v.n@yandex.ru

T. Glebova

Department "Information Computing Systems"
Penza State University of Architecture and Construction
the city of Penza, Russian Federation
tan.1952@mail.ru

E. Asmolova

Lead Engineer of LLC "Video3", a graduate student
Penza State Technological University
the city of Penza, Russian Federation
logani@mail.ru

Abstract— This article is devoted to the experience of members of several initiative groups that have created different companies that carry out innovative projects for different sectors of the national economy. Such enterprises do not compete for the Customer. This allowed them to unite in an informal holding, in order not to repeat the mistakes made earlier by one of the enterprises when implementing an innovative project. The analysis showed that the successful implementation of the innovative project by more than 60% depends on the work carried out by the members of the initiative group before the organization of the enterprise and participation in the tender for receiving a grant from the Investor. At the Start Up stage, the Investor will only co-finance the work necessary to implement the innovative project. An analysis was conducted of 9 small enterprises, the data of which were available. The results were based on data on the two most successful enterprises. The first enterprise (LLC "Video3") de facto became the head of an informal holding. Heads of the holding, without payment of consultations, communicating with colleagues from other enterprises give each other information: on the possibility of manufacturing separate units; on the cost of individual works and on the quality of implementation of co-executors; about the requirements of the inspectors. As a result, managers of enterprises always find the best option for fulfilling orders, and with minimal damage all possible checks are made. An example is the successful operation of the second enterprise (LLC "Penzaplav"). The result is the successful development of innovative projects carried out by different enterprises.

Keywords – *Innovative project, Large Investor, Sponsor, stages of innovation project development*

I. INTRODUCTION

The development of the national economy of any state should be based on the implementation of innovative projects [1].

Innovative development of economy is strategically important trend in state policy in current conditions which forms the basis for dynamic qualitative growth of national economy, change of its structural characteristics, determines its international competitiveness and surviving capacity [2].

Innovative development is "perspective" for the purposes of improving the competitiveness of the state and its technological leadership, and national security requires a proactive approach to innovative projects, its development and commercialization. Results innovative projects competition will determine the country's place in the international division of labor and its role in the global financial system, serving the assignment of technological rent the leading countries of innovation development [3].

Innovative design is necessary for the national economy. all possible investments in the course of its implementation pay off quickly and repeatedly [4]. As a rule, the successful implementation of an innovative project is the beginning of a serial release of a new product [5]. However, high profitability of the innovative project is associated with a high risk of its termination [6]. International experience shows that out of 1000 innovative projects that have received funding at the Start Up stage of full success, or the start of a serial production of a new product, 7 projects are reaching [7]. Analysis of the implementation of well-known innovative projects that received initial support from the Federal State Budget

Institution "Foundation for the Promotion of Small Forms of Enterprises in the Scientific and Technical Sphere" shows that there is a risk of an unsuccessful completion of the innovation project at any stage from Start Up to the beginning of mass production [8]. All that is associated with a reduction in the risk of termination of an innovative project is relevant [9]. The analysis shows that in most cases, when carrying out such an analysis, the processes that occur directly during the implementation of the innovation project are examined [10]. As a rule, its prehistory is practically not considered, although the main reasons for successful implementation of the innovation project and its collapse may be hidden there. In accordance with the analysis of innovative projects carried out by enterprises with which the authors of the article cooperate, two successfully developing innovative projects have been singled out at Penza enterprises in "Video3" LLC and "Penzaplav" LLC, which carry out projects in various sectors of the national economy, which indicates the universality of the received results. The authors of the article were members of the initiative group, who prepared the documents for receiving grants, for additional funding at the Start Up stage.

II. FORMULATION OF THE PROBLEM

Technology vyponeniya innovation project

Implementation of an innovative project, especially at the Start Up stage, is impossible without serious financial support. A Sponsor is required. These can be funds provided by the State Fund and private capital provided by business angels or venture funds.

The interest of the State Fund is the creation of new jobs and the opportunity to return the invested funds in the form of taxes, as well as the emergence of new industries and the return of investments, not only in the form of taxes, but also in the form of new jobs and the improvement of the financial situation in a particular region .

The interest of the owners of private capital is to multiply the funds invested quickly. With the use of private capital, it is not a question of returning the funds invested by them. As an option to increase your capital, any Investor can put money on a deposit and without big problems get their interest. The innovative project is interesting to them in that it allows, if successful, to multiply the funds invested many times over a short interval (up to three years). But the innovative project is always burdened by the high risks of its termination, and, consequently, the likelihood of loss of funds invested, or a partial loss of funds invested. To raise funds, the members of the initiative group must work with both the state Fund and private capital.

In accordance with the established tradition, the implementation of an innovative project is the commercialization of the results of scientific research. By definition, the most well-trained scientific workers of scientific research institutes and higher educational institutions, or the research institutes and higher educational institutions themselves, can possess the results of scientific research. To accelerate the involvement of higher education institutions and research institutes in innovative activity, the

Russian Duma adopted Federal Law No. 217-FZ of 02.08.2009 regulating the transfer of intellectual property to newly created small enterprises, the main type of activity of which is 73.10 "Scientific research and development in the field of natural and technical sciences" [11]. It was assumed that such a step would give a powerful impetus in increasing the number of small enterprises that are carrying out the innovative project and improve the quality of their work. World practice shows that when the results of scientific research are commercialized, it is the state at the first stage that is responsible for financially supporting the implementation of the innovative project in the form of grants [12]. In the Russian Federation, the support of the members of the initiative group (always on a competitive basis) can be carried out by the regional government or state funds, of which the Federal State Budgetary Institution "Foundation for the Promotion of Small Forms of Enterprises in the Scientific and Technical Sphere" (hereinafter the Fund) [13] in exceptional cases, such a project is supported by other sponsors by business angels or venture funds, which are usually connected to the stage of development of an innovative project after passing stage Start Ap.

The Fund's support, on a competitive basis, is carried out under the Start1 program: a newly created legal entity, usually a "limited liability company". Winning a competition and getting financing an initiative group the company can, if:

- represents a truly innovative project (in the future we will consider that as a result of the implementation of an innovative project, a new product, unknown earlier in the market, or known but created with the help of new technologies, begins to be produced, which in all cases allows the manufacturer to obtain superprofits due to the positive properties of the innovative product, so much better than previously known that the consumer considers it permissible to pay the manufacturer's established price for a new product);
- for the interval time set by the investor, the enterprise will open with the main type of activity 73.10 "Research and development in the field of natural and technical sciences";
- will prove to the Investor that the company will be given the intellectual property right of the members of the initiative group for the proposed project (for Sponsor this is confirmation that this innovative project is unique and upon its completion a new product resulting from the implementation of a specific project will be easier to seize the market, since there are no analogues) [14];
- will prove to the Investor that the qualification of the members of the initiative group corresponds to the requirements for the employee of the small production enterprise, including their previous achievements related to the proposed production activity for the implementation of the innovative project (for Sponsor this is confirmation that this innovative project will be successfully completed, as members of the initiative group are specialists in different fields and will make timely decisions on preventing negative situations, by the development of a new project);

- correctly, it is clear for the Investor, will put the scientific and technical task, the solution of which is directed the project, showing its relevance and the possibility of commercialization with multiple returns of invested funds for a short interval;
- will determine, scientifically, for the Investor, the scientific novelty of the proposed solutions in the project, which will allow the Fund to ensure that the new product will be competitive in the market;
- will show the Investor how the work will be organized to seize the market with a new product.

As experience has shown, the preliminary stage, which the initiative group should carry out, is to prepare for the implementation of the innovative project labor [15]. As a rule, it is executed at the expense of the personal funds of the members of the initiative group. Taking into account that young people should be included in the initiative group for the successful implementation of the innovative project, the Foundation introduced the program UMNIK (Participant of the youth innovation contest), participation in which allows to receive a grant, currently it is 400 thousand rubles. for two years, in order to carry out research and prepare for the implementation of the Start1 program, together with the prospective initiative group, often in its special version "The Smart for Start", assuming the program "Start1".

The authors of the article have a successful experience of successful implementation of innovation projects, having won the Start1 contests, through the preliminary investment of their own funds, and taking into account the additional financing of the Fund under the UMNIK program. As a result, they successfully carry out R & D and the enterprises created by them have reached indicators that allow them to attract a Major Investor to organize batch production.

Conditions for the implementation of the innovative project

In one case, according to the Start program, the initiative group was composed only of former highly qualified employees of enterprises conducted R & D [16]. At the beginning of the preparation of documents, their enterprises became bankrupt. They were the bearers of the intellectual property and industrial experience that they owned only when they worked as heads of small units (group leaders), but they lacked experience in managing enterprises as a whole. As a result, documentation was developed at the enterprise created by them, and serial production of wear-resistant gas burners for melting furnaces of the bath type was started. The enterprise successfully passed the Start Up stage, but its development stopped during negotiations with the Large Customer, who could bring the new product to the market. The reason was the ambitions of the main author of intellectual property, who considered that the material payments offered him are not sufficient and decided to independently sell the project to a large customer. He for a long time advised the Large Customer for free, on all issues of the technology of manufacturing a new product and the specifics of its application. As a result, the Large Customer started production, but the author of intellectual property did not receive anything.

In another case, the initiative group included the winner of the UMNIC program, with its intellectual property, obtained as a result of R & D of a similar innovative project, and, as in the first case, highly qualified employees of bankrupt enterprises, and employees who had experience in administrative management of the Regional youth and youth organization "Center for Support of Projects of Young Scientists and Researchers of the Penza Region" and two small enterprises. As a result, in addition to performing the basic R & D and organization of the release of components for 3D indicators, the optical-software and hardware complex "Three-dimensional medical atlas" was developed in parallel, which successfully expanded the range of works performed. As a result, this enterprise successfully fulfilled the program of the first year of Start1 and the program of the second year of Start2 [17]. At present, the enterprise conducts long-term negotiations with Major Investors on the sale of innovative projects to them so that they can organize large-scale R & D enterprises and, through their marketing departments, bring a new product to markets, including international ones.

In all cases, the main problems arise with qualified, aged employees of innovative enterprises that are members of the initiative group who know:

- what innovative product will be created;
- on what equipment it is necessary to make separate units;
- how the product will be assembled;
- what certificates it will be necessary to receive.

In other words, without them, the innovative project will be terminated (an analysis of the reasons for the termination of the 9 innovative projects known to the authors of the Article, which received funding at the initial stage of Start Up and executed at different enterprises, showed that 7 of them, or 78%, failed due to unsuccessful production relations between members of the initiative group, when at least one employee decided not to participate in the project any more). Such employees are really professionals, but they do not know the specifics:

- how the enterprise functions [18];
- how technical documentation is sold, together with intellectual property, to other enterprises or interested persons [19];
- how marketing works are carried out to study the market [20];
- how cooperation between enterprises and individuals is organized [21];
- what is the reporting to the Pension Fund, Tax Inspectorate, Social Insurance [22];
- how taxes are formed [23];
- what is the personnel documentation [24];
- how banks control the movement of money [25];

- who (and how) checks the work of the enterprise (the checks are inevitable, since the enterprise is partly financed by the state and the state wants to know how this money was spent).

As a result, often an initiative group (which includes employees who have worked in industrial enterprises for a long time and consider themselves to be Producers), having received sufficient funding to start work at the Start Up stage, disintegrates due to the inability to establish the normal work of production workers and administration of the enterprise.

Thus, for the successful implementation of an innovative project at the Start Up stage, it is necessary:

- availability of an innovative project [26];
- the presence of intellectual property protecting the new product from copying;
- presence of amicable initiative group;
- the presence of a potential Major Investor who will acquire the documentation developed during the implementation of the innovative project, and will begin to serially produce a new product developed for it;
- presence of the Sponsor, who will support the members of the initiative group through a small company, at the Start Up stage.Предполагаемый итог

Thus, before the implementation of the innovative project, the initiative group should carry out a great work. This work can pay off only if it is possible to pass the stage Start Up and sell the developed documentation to the Major Investor. It should be noted that during the implementation of the StartUp stage, the members of the initiative group, as a rule, invest part of their wages in the project for its co-financing. Now the Russian Federation has not yet created conditions, as, for example, in Israel, when members of the initiative group can receive wages:

- enough to not work elsewhere;
- enough to devote all the time to an innovative project.

In the Russian Federation, according to the rules of the Fund (the most famous Investor at the Start Up stage), it is accepted that during the implementation of the innovation project there should be co-financing in the amount not less than the Fund provides. And this co-financing should be carried out in the same period when the Fund finances an innovative project. At the same time, it is stipulated that the sale of new products, which are the result of successful implementation of an innovative project, automatically leads to the termination of funding from the Fund. Thus, employees of a small enterprise are required by the Fund to seek other forms of profit. This allows the enterprise then, in case of failure and termination of the innovation project, to continue its activities, providing employees with wages, and the state with taxes.

This rule is controversial, and it is successfully carried out only in the case of the start of work on the implementation of an innovative project, when more than 60% of all necessary

research has already been carried out and it remains only to create technical documentation. At the same time, if at this stage the General Investor also participates in the co-financing, at the time of the creation of the technical documentation, technical conditions are also developed that allow to start producing new products on the equipment of the General Investor.

There are several cases of termination of the innovation project, when a small company after searching for Investors, finds well-paid orders and then ceases to implement the innovative project. As a good profit, sufficient, to satisfy the members of the initiative group, the enterprise and the members of the initiative group can receive only by selling the technical documentation to the Major Investor, after the completion of the stage of the Start Up, and maybe after the next stage, which is estimated in the time interval in a period of three years or more. Appeared well-paid orders, allow you to receive, albeit not as much profit, but as important now. Of the known cases, there are no employees of the enterprise who would not succumb to this temptation. There are also no cases of the subsequent renewal of the innovation project, after the enterprise has performed well-paid orders that are not connected with the implementation of the innovative project.

Intellectual property

According to the tradition established since Soviet times, employees of enterprises are extremely careless about intellectual property. At the same time, the Fund to start co-financing an innovative project requires the company to have intellectual property rights. In general, intellectual property is understood to mean that the company has patents for an invention, or for an industrial design, or for a utility model, and a decorated know-how.

The theoretical value of patents and know-how can increase the commercial value of the enterprise and the innovation project when selling them to the general investor. In practice, the value of intellectual property is always taken into account when creating an enterprise under N 217-FZ of 02.08.2009. This approach really increases the likelihood of winning a grant from the Foundation to support the stages of Start1, Start2 and Start 3 (altogether it is 9 million rubles). However, the mandatory indivisible percentage of the ownership of a research institute (or university) in the form of their shares, at all stages of the development of an innovative project, makes this direction unattractive. Experience shows that the technical documentation prepared for sale never satisfies the General Investor. The prototype, as a rule, was created on equipment for which the General Investor does not have. General investor offers other equipment and allocates a grant for the creation of a new package of technical documentation, but already focused on a specific technology line. At present, this grant is estimated at no less than 60 million rubles. This is not yet the amount for which the General Investor is going to buy an innovative project, but it is at this stage that the co-founder of the enterprise at 217-FZ (NII or HIGH SCHOOL), for whom this money is considered a profit from the work of the enterprise, is going to get his share. As a result, the General Investor understands that there is a possibility that for the remaining funds, most likely the

necessary documentation will not be created - and the deal breaks down. At best, the enterprise will continue to produce.

Indicators to confirm the successful implementation of the investment project

Analysis of successful innovative projects carried out both with support of the Fund and support of other Sponsors showed that before the start of the innovation project implementation it is necessary:

- an innovative project with a business plan, where it is reasonably shown that three years after the start of the innovation project, the working capital for the operation of the enterprise will be at least \$ 1,000,000 USA;
- at least 3 members of the initiative group who have sufficient and confirmed qualifications, proving the work of at least one of them in the administration of the enterprise of any form of ownership, the work of the remaining members in industrial enterprises and proving to the Investor that the innovative project will be completed on time;
- pre-contributed funds for the preparation for the implementation of the innovative project, including the cost of research, patent search and consolidation of intellectual property, analysis of sales, risks during the implementation of the project and possible competitors, which is currently estimated at no less than 2 million rubles (calculated, that if the members of the initiative group did not do this themselves, they would find a firm that would do this work) [27, 28];
- the General Investor, who will have to work in the future, already selling on the market a similar or similar product and having a profit for the past year of at least 400 million rubles;
- issued by Intellectual Property, on the project's theme, which confirms that it will be difficult for potential competitors to enter the market with similar products.

III. CONCLUSIONS

The analysis of the implemented innovative projects has shown that for their successful completion it is necessary at the preparation stage to have:

- to go through the research stage (at the expense of the members of the initiative group), which made it possible to prove the viability of the new product and its significant advantages over the existing analogues, allowing in the future to sell new products at a price sufficient to pay back all the jobs needed to bring the new product to the market, while the Buyer was sure that the proposed cost of the new product fully satisfies it;
- presence of the General Investor who will buy out the technical documentation and intellectual property from the members of the initiative group in order to start producing new products to receive superprofits, while the General Investor should be convinced that a new product is needed by the market;

- Stage Start Up, as a rule, on a competitive basis, is co-financed by the state, while, under the rules of the Fund, the financed enterprise must simultaneously conduct works that generate revenue exceeding the size of the grant provided by the Fund;
- as a rule, on a competitive basis, is co-financed by the state, while, under the rules of the Fund, the financed enterprise must simultaneously conduct works that generate revenue exceeding the size of the grant provided by the Fund;
- to start work on the implementation of an innovative project, the Investor (always co-financing the implementation of an innovative project) should be convinced that the project is being implemented by a strong initiative group of complementary experts who can generally perform all the necessary work from the management of the enterprise and complete the production of a prototype of a new product.

IV. DISCUSSION

This article is the result of research carried out by the heads of small enterprises that carry out innovative projects that are part of the informal holding LLC Video3. All enterprises carry out innovative projects do not compete for the customer, as they work in different sectors of the national economy: IT technologies, development of technological lines for utilization of bird litters, development of wear-resistant industrial burners for remelting non-ferrous metals in bathroom furnaces, extracting plant growth stimulants from peat and biologically active additives for animals. Unification in an informal holding allows to avoid mistakes made by other enterprises performing other innovative projects. The article describes the experience that allowed the initiative groups to prepare and successfully win a grant on financial support for an innovative project.

References

- [1] O.A. Amirova., I.I. Prosvirina, "Regional economic development resource management: new approaches" in *Economics & Management Research Journal of Eurasia*. 2015. № 1 (5). pp. 3-12.
- [2] Pavlov A.J., Batova V.N., Kovalyova N.N., Kolesnikov A.V., Sokolov A.Y., Soboleva Y.V. "Problems of state regulation of innovation policy in the Russian Federation and foreign countries" in *Journal of Advanced Research in Law and Economics*. 2015. T. 6. № 4. C. 802-821.
- [3] Pavlov A.J., Batova V.N. "Ensuring economic security of the innovative development of nanotechnology in the Russian Federation and foreign countries" in *Life Science Journal*. 2014. T. 11. № 6s. C. 322-325.
- [4] L.A. Kormishkina, D.A. Koloskov, "Innovation approaches to the formation of investment policy tools from the perspective of a neo-industrial economic development paradigm" in *Economic and Social Changes: Facts, Trends, Forecast*. 2017. № 6 (54). pp. 218-233.
- [5] Ye.L. Abrosimova, M.N. Selina, "Problemy venchurnogo finansirovaniya innovatsiy v Rossii" v zhurnale "Novaya ekonomika - novoye obshchestvo". 2011. № 6. S. 121-123.
- [6] V.R. Roganov, E.V. Roganova, Ye.A. Asmolova, V.O. Filippenko, "Odin iz variantov realizatsii innovatsionnykh proyektov v usloviyakh sovremennoy Rossii" v zhurnale "Vestnik YURGTU (NPI)". 2014. № 5. S.58-62.

- [7] A.V. Sokhranova, M.N. Selina, "Sovremenny investitsionny klimat v Rossii" v zhurnale "Novaya ekonomika - novoye obshchestvo". 2011. № 6. S. 124-127.
- [8] <http://fasie.ru/programs/programma-start> (circulation date 14.02.2018).
- [9] V.R Roganov, "The optical-hardware software complex for 3D visual models" in Science, Technology and Higher Education: materials of the III international research and practice conference, Vol. II, Westwood, October. – Westwood, Canada, 2013. pp. 483–491.
- [10] N. Andreychenko, M. Frolova, T. Nazarova, "Focused training to meet the demands of international companies in Togliatti city (Russia)" in "American Journal of Economics and Control Systems Management". 2014. T. 4. № 2. C. 19-23.
- [11] <https://normativ.kontur.ru/document?moduleId=1&documentId=217747> (circulation date 14.02.2018).
- [12] L. Danik, I. Kowalik, P. Krač, "A comparative analysis of polish and czech international new ventures" in Central European Business Review. 2016. T. 5. № 2. C. 57-73.
- [13] <http://fasie.ru/fund/>(circulation date 14.02.2018).
- [14] V.R. Roganov, A.B. Sagyndyk, R.F. Akhtarieva, A.K. Beisenbayeva, S.I. Sannikova, "Integrated organization of the system for forming the information support of aeronautical simulator" in International Journal of Applied Engineering Research. 2017. T. 12. № 15. – pp. 5207-5213.
- [15] V.R. Roganov, "Analysis of the current state of research and development of visual databases of computer image generators of visual simulators of aviation simulators" in Modern information technologies. 2017. No. 26 (26). pp. 45-57.
- [16] Report on the implementation of R & D on the topic: "Investigation of gas combustion conditions and development of a mathematical model of the combustion process using a two-row injection burner with four mixers" (state contract No. 8297p / 13094 of July 31, 2010) (final) Inv. №08. Registration №01201061468. Penza, LLC "Penzaplav", 2011. - 115 p.
- [17] Report on the implementation of R & D on the topic: "Research and optimization of manufacturing technologies for beam-splitting plates and spherical mirrors, for single-channel and multichannel bezochkovykh indicators pseudo-volumetric image with a narrow pupil." (state contract No. 8009p / 8265 dated 30.04.2010). Sub-step №3.2 "Investigation of methods for minimizing distortions in a single-channel non-jawed narrow-pore pseudo-volume indicator due to the selection of the radius of a spherical mirror, development of a body model of a pseudo-volume indicator" (intermediate). Inv. №06. Registration №01201057279. Penza, LLC "Video3", 2011. – 6 p.
- [18] EO. Dmitrieva, "Small entrepreneurship as a factor of modernization of the old industrial monotown" in Vector of science of Togliatti State University. Series: Economics and Management. 2017. No. 3 (30).– pp. 42-49.
- [19] G.N. Grodskaya, O.S. Yevseyev, S.S. Asanova, "Peredovyye instrumenty formirovaniya konkurentosposobnogo investitsionnogo klimata na regional'nom urovne" in Vektor nauki Tol'yatinskogo gosudarstvennogo universiteta. Seriya: Ekonomika i upravleniye. 2017. № 3 (30). S. 35-41
- [20] Dr. Khaled Abdallah Moh'd Al-Tamimi, "Management Role in Improving the Quality of Services and Maintaining Their Excellence in the Market Using Electronic Marketing: A Field Study on Zain Jordan Communication Company" in International Journal of Management Sciences and Business Research, Dec-2017 ISSN (2226-8235) Vol-6, Issue 12, 2017.- pp 6-18.
- [21] S. DellaVigna, B. Knight, R. Durante, E. La Ferrara "Market-based lobbying: evidence from advertising spending in Italy" in American Economic Journal: Applied Economics. 2016. T. 8. № 1. – pp. 224-256.
- [22] E.F. Nazmiev, "Formation of industrial entrepreneurship infrastructure in a competitive environment" in Property management: theory and practice. 2008. № 1.– pp. 23-25.
- [23] N.A. Adamov, T.A. Kozenkova, "On the questions of financial and economic activity of integrated structures" in All about taxes. 2008. № 10. – pp. 14-17.
- [24] R.I. Malikov, K.E. Grishin, D.D. Mukhametova, "Innovative Aspects of Contour Design for a Favorable Institutional Configuration of the Regional Business Environment" in Russian Entrepreneurship. 2017. T. 18. No. 7. - pp. 1159-1175.
- [25] Moran, John & Average, Amy). "Creating Lasting Change" in The Total Quality Management Magazine, 9, NO.2, 1999 -pp 146-151.
- [26] .M.Y. Mikheev, V.R. Roganov, P.G. Andreev, N.V. Goryachev, V.A. Trusov " Developing the structure of the quality control system of power supply units in mobile robots" in 2017 International Siberian Conference on Control and Communications, SIBCON 2017 - Proceedings 2017. – p. 7998579.
- [27] V.R. Roganov, E.A. Asmolova, A.N. Serebkin, M.V. Chetvergova, N.B. Andreeva, V.O. Filippenko " Problem of virtual space modelling in aviation simulators" in Life Science Journal. 2014. T. 11. № 12. P. 1097
- [28] Solovev D. B. Improvement of protective relaying efficiency for motor drives at mineral processing plants // Industrial Engineering, Applications and Manufacturing (ICIEAM), International Conference on. pp. 1-5, 2017. [Online]. Available: <http://dx.doi.org/10.1109/ICIEAM.2017.8076343>