

## **ECONOMICAL SCIENCES**

**A. S. Budagov, N. N. Trofimova**

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### **ADVANTAGES OF STRATEGIC USE OF DIGITAL LEADERSHIP TO ACHIEVE BUSINESS GOALS OF THE ENTERPRISE**

*The article shows that digital leadership is not limited to a standard set of leadership qualities. The leaders of modern companies must meet the ongoing changes in the economy, becoming digital leaders to achieve the business goals of the enterprise. The concept of digital leadership has been clarified. The range of advantages of the strategic use of digital leadership to achieve the business goals of the enterprise is highlighted. The skills that digital leaders need to achieve a business strategy are identified. Recommendations on drawing up a digital roadmap for achieving strategic business goals of the enterprise are given.*

**Keywords:** leadership, digital leadership, digital skills, digital technologies, business leaders, business goals, strategy.

**E. M. Ilinskaya, M. N. Titova**

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### **SYNERGETIC EFFECTS AND DRIVERS OF THE INNOVATION PROCESS IN THE DIGITAL ECONOMY**

*The theoretical and methodological foundations of modeling the synergetic effects of the innovation process in the digital economy are investigated. The article updated the classification of innovations for the purpose of formalizing the synergetic process. The question of the compatibility of innovations and production and management systems raised the problem of classification and characteristics of various types of synergy of the innovation process. To calculate the synergy effect of the innovation process, a classification of multipliers by types of synergy was performed. To quantify the synergy effect, a multiplier method based on additive criteria matching was proposed. When developing a formula for calculating the synergy effect, in addition to multipliers, an accelerator or a targeted interval indicator was introduced, an excessive value of which can lead to synergetic chaos, and its minimization will lead to a significant weakening of the synergy effect. To substantiate the points of innovative growth of business systems, a model of fractal reproduction was proposed.*

**Keywords:** innovation processes, digital economy, business models, synergy effect, synergy of innovative business process, synergy multipliers, accelerator, synergetic chaos, fractal. reproduction model.

**A. V. Soshnikov, A. V. Arkhipov**

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### **ORGANIZATION OF RATIONAL USE OF MIXED TECHNOLOGICAL RESOURCES IN SMALL-LOT PRODUCTION**

*The problem of rational organization of small-scale production is considered when using equipment with different levels of specialization and personnel of workers-operators who, due to unequal qualifications, have different capabilities, both for performing various operations and working on different types of technological machines. Introduced the concept of «mixed resources», reflecting the integration into a single accounting unit complementary to each other when performing a certain operation of heterogeneous resources. Technological machines and machine workers are considered as such resources in the article. For mixed resources, the characteristics of connectivity and multiplicity are introduced, which are used in the search for a variant of rational assignment of technological operations to the formed mixed resources. A procedure for searching for such an option is proposed.*

**Keywords:** mixed resources, connectivity, multiplicity, rational use, technological equipment, personnel, small-scale production.

**A. N. Litvinenko**

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### **ANALYSIS OF THE STATE OF COMPETITION: THE ECONOMIC ASPECT OF ANTIMONOPOLY REGULATION**

*The problem of evaluating the effectiveness of the competition policy carried out in the country actualizes the task of ensuring the quality of the conducted analysis of the state of competition. The article analyzes methodological approaches to the analysis of*

*the state of competition. The features of the economic and legal approaches are revealed. A retrospective of the formation of procedures for analyzing commodity markets as a system is given. The complexity of the commodity market as an object of analysis is justified. The main organizational and economic*

problems of the analysis of the state of competition are considered.

**Keywords:** antimonopoly regulation, market analysis, competition, market monopolization, methodology of analysis, problems of analysis, stages of analysis.

**S. M. Molchanova**

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#### FEATURE OF INNOVATIVE MODEL OF ECONOMIC DEVELOPMENT IN CONDITIONS OF DIGITAL TRANSFORMATION OF SOCIETY

The article discusses the implementation of innovations based on the use of convergent technologies, digital transformation of society, as well as the fusion of science and artificial intelligence. The influence of the ideology of technological changes and a complex of geopolitical factors on the trajectory of innovative development is noted. The author identified the priority of state innovation policy in ensuring sustainable economic growth and increasing the level of competitiveness in the international arena. The dynamics of the global innovation index and the place of the Russian Federation in the rating characterizing the innovative activity of enterprises and the degree of influence of state participation on the creation of a favorable environment for Russian companies are presented. The article summarizes the current trends in the development of the use of innovative tools that make it possible to increase the efficiency and competitiveness of industrial enterprises and the financial support of innovations in Russia.

**Keywords:** innovation, economic development, innovation, legislative framework, public policy, global innovation index, automation, digitalization, convergence.

**M. E. Belomestnova, K. I. Sharafadina**

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#### TOURISM DEVELOPMENT STRATEGY IN THE RUSSIAN ARCTIC REGIONS: FROM ECONOMY TO CREATIVE DEVELOPMENT

Currently, the Arctic is one of the most promising areas for the region's economy in terms of sustainability, social results and diversification. But opportunities for participation in the tourism sector vary from region to region, depending on their geographic location, climatic conditions and infrastructure development. The article analyzes the resource potential, opportunities and challenges for the development of Arctic tourism, the dynamics of tourist flows and the volume of tourist services. It is concluded that tourism contributes to the diversification of the economy of the Arctic region, the creation of a favorable image in Russia and the world, improves the quality of life of the local population and, in general, is a catalyst for economic growth in the region.

**Keywords:** Russian Arctic, socio-economic development of the Arctic zone, development strategy, economic diversification of the Arctic regions, Arctic tourism, tourist and recreational clusters.

**T. A. Ignatieva**

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#### ECONOMIC AND CULTURAL ASPECTS OF THE PRESERVATION AND DEVELOPMENT OF TOURIST ATTRACTION IN ST. PETERSBURG

This article is devoted to topical issues of preservation and development of tourist objects of cultural and historical heritage on the territory of St. Petersburg. The article presents a SWOT analysis of St. Petersburg as a tourist destination and concludes that it is necessary to preserve the existing objects of cultural and historical heritage and form new tourist attractions to support and promote the image of St. Petersburg as a cultural and historical center not only of Russia, but of Europe and the world as a whole. The article presents the author's classification of the state of cultural and historical heritage objects, as well as examples for each of the categories. As a result of the work, three main groups of factors were identified that contain the reasons for the loss of cultural and historical heritage objects and the author's recommendations for extending the life cycle of cultural and historical heritage objects were proposed.

**Keywords:** cultural and historical heritage, objects of tourist attraction, domestic tourism, tourist objects, lost objects of cultural and historical heritage.

**N. G. Lashkova**

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#### ENSURING THE ECONOMIC SECURITY OF THE COUNTRY IN THE CONTEXT OF FOREIGN INVESTMENT

With the development of the integration of economic relations at the world level, the interconnectedness of the national economies of all states, geo-economic threats have emerged that are relevant from the point of view of ensuring the protection of society and the state from dangers. This problem became especially acute after the global financial crisis, which led to the economic downturn. In modern conditions, ensuring the economic stability of the economic system is formed through the use of innovations in the production process. For Russia, attracting foreign investment is important not only from the point of view of increasing real assets, but, first of all, from the point of view of using modern information and communication technologies in combination with all elements of the organizational culture of modern business.

**Keywords:** investment processes, investment attraction, development of the investment market, capital movement.

**N. G. Ivanova, K. D. Bizyukova**

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#### COMPARATIVE ANALYSIS OF ENERGY MANAGEMENT SYSTEMS IN THE COUNTRIES OF THE WORLD

The article presents a complex of production, technological and economic relationships between the subjects and objects of energy management using the example of Russia. A comparative analysis of the country's energy management systems has been carried out that are different in terms of the kinds of energy markets, the kinds of used fuel, approaches to the regulation of the industry, which is reflected in the tariff policy, being pursued. Based on the analysis of energy tariffs, energy intensity of GDP, the necessity of investing in energy efficiency has been proved.

**Keywords:** energy, capacity, power industry, energy system, energy management system, government regulation, legislation, tariff.

**S. S. Marchenko**

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#### PRINCIPLES OF FORMING VARIANTS OF DISTRIBUTION OF VESSELS MODERNIZATION AND REPAIR FACILITIES WITHIN THE SHIP REPAIR CLUSTER

This work is a logical continuation of the scientific article of the author «Economic-mathematical model of the organization of vessels modernization at the enterprises of the ship repair cluster», in which the mathematical model describing the mechanism of distribution of planned program of modernization and scheduled repair of ships among shipbuilding and ship repair enterprises, included in the potential ship repair cluster, is developed. In the present article methodological principles of formation of various variants of accommodation of productions on modernization and planned repair of river cargo ships and mixed navigation at the enterprises of ship-repair cluster which allow to optimize earlier constructed mathematical model and to simplify its practical application are developed. Problems and tasks which currently face domestic shipbuilding and ship-repair enterprises, which solution is possible with the help of cluster approach to the organization of shipbuilding and ship-repair production are defined. Russian shipbuilding innovation territorial clusters, one of the main results of which is intensive growth of labor productivity, are considered. Using the method of expert assessments and calculated integral criteria of expediency of work distribution for modernization and scheduled medium repairs, it was found that the most promising and suitable enterprises, which can form the core of a potential ship repair cluster of the Northwest region, are JSC «Kanonersky Shiprepairing yard», PJSC «Vyborg Shipyard», PJSC Shipyard «Northern Shipyard», JSC «Kronstadtsky Marine Plant», JSC «Shiprepairing Center «Zvyozdochka».

**Keywords:** innovation cluster, ship repair, specialization, modernization, competitiveness.

**N. A. Ivanova, V. A. Varfolomeeva**

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#### TAX OPTIMIZATION FEATURES OF KNOWLEDGE-INTENSIVE ORGANIZATIONS

*Currently, the Russian Federation faces the primary task of transitioning from a resource-based economy to an innovation-type economy model, which implies fundamental changes in the technological equipment of various sectors of the country. The urgency of the problem lies in the fact that it is customary to characterize the Russian economy as an economy with a pronounced dependence on raw materials. In the economy of our state, an increase in the share of the raw materials sector in the export structure occurs simultaneously with a decrease in the export diversification index. Export diversification makes the country's economy more stable and less dependent on the world level for all types of raw materials. The raw material dependence of the Russian economy generates a large number of problems, the solution of which is the prerogative of the state. One of the ways to avoid dependence on raw materials is the development of knowledge-intensive organizations. The purpose of the study is to study the issues of preferential taxation of knowledge-intensive industries. The methods of tax optimization are the abolition of land tax in respect of premises where scientific research is carried out, the use of benefits in the form of reduced tax rates or full exemption from taxes, tax holidays organized for start-up entrepreneurs, attribution to tax expenses of the amount for services rendered, without accruing wages to the same amounts, the creation of territories with a special tax regime, preferential taxation of individual investment projects, general tax benefits. The authors of the article see the direction of tax optimization in the creation of special territories of advanced socio-economic development (TOCER), free economic zones, as well as in the payment of taxes at reduced tax rates, or full exemption from taxes on activities related to scientific research. The value of the research lies in the systematization of tax benefits of organizations that are engaged in scientific activities and the development of proposals for the introduction of separate articles in the Tax Code on the benefits of research activities. Tax incentives consist in reducing tax rates, providing tax deductions, tax holidays, providing those employees who are directly engaged in science and research with a preferential tax rate or a tax deduction from accrued wages when calculating personal income tax (personal income tax).*

**Keywords:** tax benefits, investment activity and activity, economically free zones, tax holidays, territories of

**A. N. Nazarova, M. G. Treyman**

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#### ENERGY AUDIT AS THE MAIN METHOD OF CONTROL IN ENERGY MANAGEMENT SYSTEMS

The article provides an overview of the legislative framework of the energy management system, examines approaches to improving energy efficiency for thermal power plants through energy audit procedures. The terminological apparatus is considered, as well as the features of building an energy management system for thermal power plants. On the example of CHP No. 15 for PJSC TGC-1, an analysis of steam and condensate losses, changes in the main indicators of the thermal energy balance for the CHP was carried out, which made it possible to assess the state of energy use at the facility. During the energy audit of the facility, problems were identified and solutions to the existing problems of the analyzed organization were proposed.

**Keywords:** energy management system, energy audit, energy survey, energy saving, energy efficiency indicators, heat and power enterprises, heat energy balance; energy resources management system.

**E. A. Suchalkina**

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#### ABOUT SOME ISSUES OF DIGITALIZATION OF THE ACCOUNTING SERVICES MARKET

Currently, the issues of digitalization and the use of information technologies are becoming relevant. Digital data is becoming a key factor in all areas of economic activity. The digitalization of the economy is making changes to the system of collecting, storing and processing information. In this regard, new requirements are imposed on the organization and accounting. The article discusses the issues of digitalization and its impact on modern accounting.

**Keywords:** digital economy, accounting, digitalization, information, information technology, artificial intelligence, cloud technology, blockchain technology.

**E. A. Maltseva**

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#### INTERNAL CONTROL AS THE BASIS OF ECONOMIC SECURITY

The article deals with the problems associated with the organization and implementation of internal control in the economic activities of economic entities. The necessity of introducing an internal control system at enterprises in order to ensure economic security is proved. The criteria for assessing the economic security of the enterprise are considered.

**Keywords:** internal control, threats, economic interests, indicators, economic security.

**N. N. Golivtsova, N. S. Golivtsova**

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#### ASSESSMENT OF ECONOMIC EFFICIENCY OF METEOROLOGICAL SUPPORT OF FLIGHTS ON THE EXAMPLE OF APATITY AIRPORT

*The economic efficiency of meteorological support of flights, the relationship between weather forecasts and airline losses, the influence of forecasts on decision making on aircraft departure are considered.*

**Keywords:** assessment of the economic usefulness of meteorological forecasts, improving flight safety, dangerous weather phenomena for aviation.

## PEDAGOGICAL SCIENCES

**V. A. Domansky**

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#### NIKOLAY KLYUEV IN TOMSK: EDUCATIONAL PROJECT «VIRTUAL MUSEUM OF THE POET»

*The article presents an educational project — «Virtual Museum in Tomsk», which can be used to get acquainted with the biography and work of the poet in literature lessons and in extracurricular work, as well as for extramural excursions. In it the author, relying on the ideas of musical pedagogy, develops the content of the museum's exposition in the house on 12 Krasniy Pozharnik Lane, where in 1934–1936. the poet lived in exile in Tomsk. A separate plot is a virtual educational tour of the memorable places of Nikolai Klyuev in a Siberian city. The (in Rus.). science and pedagogical practice to the personality and work of the outstanding Russian poet.*

**Keywords:** N. A. Klyuev, educational project, virtual museum, correspondence excursion, biography and work of the poet.

**N. A. Mironova**

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#### MODERN EDUCATIONAL ENVIRONMENT IN THE CONTEXT OF LIFELONG LITERARY EDUCATION:

## SEARCH FOR NEW METHODOLOGICAL SOLUTIONS

The reported study was funded by RFBR, project number 20-013-00684\21. The relevance of the article is due to the need to use the idea of lifelong literary education in the system of methodological training of a language teacher, revealing, on the basis of the analysis of the data obtained, the peculiarities of perception and understanding of lifelong literary education by students of philology, future teachers of literature. The term lifelong literary education does not have its own definition in modern pedagogical, psychological and methodological dictionaries and encyclopedias, but the actualization of this term is possible through the interpretation of lifelong education as a whole. The conducted ascertaining experiment and analysis of its results confirmed that the implementation of the idea of continuous literary education is one of the priority directions of the development of science in modern conditions for the methods of teaching literature.

**Keywords:** continuing literary education, student philology, data analysis, experiment.

**L. V. Rezinkina, V. S. Ermolenko**

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## FORMATION OF PROJECT COMPETENCE OF THE HEAD OF AN EDUCATIONAL ORGANIZATION

The article is devoted to the consideration of the issue of forming the project competence of the head of an educational organization. The prerequisites for the choice of project management tactics for the development of an educational organization are characterized; a technology for the formation of project competence based on the stage-by-stage formation of descriptors of professional competencies necessary for project management, including support of their formation, is proposed. It is noted that the proposed technology will enhance the level of management culture.

**Keywords:** project, project management, project competence, head of an educational organization, development of project competence, support.

**V. A. Chakurin, V. A. Domanskiy**

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## HISTORICAL ANALYSIS OF THE SYSTEM OF CONTROL AND EVALUATION OF THE EDUCATIONAL PROCESS IN RUSSIAN EDUCATION

The article is devoted to a historical analysis of the system of control and evaluation of the educational process in Russian education. Its relevance is determined by the need to use the experience of the past to implement effective assessment of knowledge and competence formation in modern professional education. Referring to the pedagogical achievements of national pedagogy, the authors of the article justify the expediency of implementing a system of multifunctional control of learning outcomes in higher education institutions, including military institutes, taking into account their specificity. The article examines and analyses a wide variety of forms and methods of control and assessment that have been used in domestic pedagogy in the past and present. Special attention, in the context of the problem under study, is paid to the forms and methods of assessment and control proposed by well-known domestic educators — I. Lerner, M. Skatkin, V. Onishchuk. The advantages and disadvantages of pedagogical monitoring, design and modelling, peer review and pedagogical experimentation are considered as new, productive methods.

**Keywords:** monitoring and evaluation activities, historical overview and analysis, forms and methods of assessment and monitoring, pedagogical monitoring, expert assessments, modelling.

**S. A. Chernyshev**

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## PROBLEMS OF USING DISTANCE LEARNING TOOLS IN IT-DIRECTIONS

Distance learning tools and various services for automatically checking the correctness of the code written by students have been used in some universities and online courses for a long time. Unfortunately, this approach does not allow you to check whether the solution was written by the student himself or not. This is due to the fact that during one semester on the Internet there are answers that can pass the test set of such systems. An additional complication is the programming culture that has developed over the past years: «problem — StackOverflow / Google — solution». All this affects the quality of training for IT specialists, especially programmers. Programming languages began to update more often and add more and more functionality for developers. For example, according to the Python program committee's decision, a new version of this programming language will be released every autumn. Teachers using Python in their subjects will have to update the discipline program every year. All this affects the quality of training for IT specialists, especially programmers. Automatic code checking systems used in training programmers have both advantages and disadvantages. There is the possibility of online monitoring of student activity and task performance, as well as many tasks sufficient for a high-quality study of the syntax of a programming language. The disadvantages include the fact that it is not possible to check the student himself completed the task, the answers to the test problems can be found on the Internet, and the complexity of their form itself pushes students to search for ready solutions. Based on the listed advantages and disadvantages of the automatic code checking system, the author recommends using it as an additional tool in the educational process. The article also provides what tasks not to use in the process of teaching the basics of programming.

**Keywords:** Russian universities, education, programming, distance learning systems.

**A. A. Osnachev**

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STUDY OF PROBLEM AREAS OF INTERACTION IN THE PROFESSIONAL ACTIVITIES  
OF CADETS OF MILITARY INSTITUTES OF THE NATIONAL GUARD TROOPS

The article presents the results of a study conducted on the basis of the Military Institute of the National Guard of the Russian Federation (hereinafter VNG RF), aimed at identifying the typology of conflicts and identifying problem areas of interaction in the professional activities of cadets in military institutes VNG RF. As a result of the conducted research, the main types of conflicts occurring in cadet groups, as well as the causes of these conflicts, have been identified. The problem areas of interaction in the professional activity of cadets are identified.

**Keywords:** conflict interaction, types of conflicts, causes of conflicts, military institute of the VNG of the Russian Federation, military collective.

**E. M. Karimulaeva**

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FEATURES OF THE USE OF GAMING TECHNOLOGIES IN LEGAL EDUCATION

Article deals with topical issues of the organization of school education through the use of gaming technologies in law lessons. In the process of legal education and upbringing of the younger generation, the modern system of pedagogical technologies is characterized by the rejection of authoritarian pedagogy in favor of a personality-oriented approach. Didactic games in legal education are artificial modeling of certain life situations, which is intellectual and cognitive in nature. The game is the most important element of educational activity and the most attractive form of conducting classes for students. The role and place of gaming technologies in the process of legal education at the stage of formation of skills for the application of legal knowledge in practice is relevant.

**Keywords:** modern technologies, innovative technologies, game, game methods, game court, law, legal education.