SUMMARY

Teplov V.I., *Ph.D. in Economics, Professor, Rector, Belgorod University of Consumer Cooperatives*

To Our Readers. P. 3-3.

PROBLEMS OF EDUCATION

Krakht V.B., *Professor, Academician, IAES, Director, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Starooskolsky Technological Institute. P. 4-5.

The paper dwells on the background and prospects of this relatively young higher educational institution.

Pereskokova T.A., *Ph.D. in Pedagogics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Continuity of Historic Knowledge Organization in the System "School – Technological Higher Educational Institution". P. 6-8.

The paper provides grounds for the necessity of continuous historic education and offers the model to form historic knowledge in the system "school – higher educational institution".

Krakht V.B., *Professor, Academician, IAES, Director, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys;*

Timofejeva A.S., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

The Importance of Computer Technologies in the Development of Students' Independent Work Skills. P. 9-10.

The paper provides grounds for the importance of computer technologies mastering in the development of students' independent work skills as well as the importance of electronic textbooks creation. The paper gives examples of certain forms of electronic textbooks used in real work (independent work, knowledge control, virtual lab works).

Arkhipov V.P., *Ph.D. in Science, Professor, Head of the Chair of Higher Mathematics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Chopchiyan S.A., *Ph.D. in Pedagogics, Assistant Professor, Chair of Higher Mathematics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Rating Olympiads as the Form of School Students' Intellectual Activity Development. P. 11-13.

The paper reveals that rating Olympiads held by the STI MISA act as intellectual competition, which makes it possible to solve multiform problems of teaching.

Otinova S.A., *Ph.D. in Pedagogics, Assistant Professor, Chair of Humanities, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

On the 10-Point System of Students' Knowledge Assessment. P. 14-19.

Pedagogical assessment of the students' knowledge is one of the indices of the efficiency of the educational institution functioning as well as the factor, which is building up one of the basic personal characteristics of students – their self assessment.

Myslivtsev V.N., *Ph.D. in Science, Assistant Professsor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Main Direction of the Higher Education Modernization. P. 20-22.

The paper provides a brief comparative analysis of the educational concepts: subject-object, characteristic of Russian higher school of the last century and subject-subject, which goes to substitute the former and which is accepted in the majority of the developed countries.

Masalytina O.V., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Concept of the Quality System Building at a Higher Educational Institutiton. P. 23-25.

The wish to ensure quality education, accepted in all countries, be a full agent of the educational services and labor market became one of the reasons for the introduction of the quality management system (QMS) in the activities of educational institutions.

Chopchiyan S.A., *Ph.D. in Pedagogics, Assistant Professor, Chair of Higher Mathematics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Designing of Educational tasks by Students on the Basis of Personal Activity Approach. P. 26-31.

The paper shows the essence of the personal activity approach in the organization of educational process.

Vilikotskaya L.A., *Ph.D. in Philosophy, Assistant Professor, Chair of Humanities, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Upbringing and Education as the Factors of Human Development. P. 32-37.

The paper analyses the views of the Russian thinker of the 19th century born in Belgorod N.N. Strakhov on the problems of human development, the role of education and upbringing in this process.

Aleksejeva L.N., *Assistant Professor, Chair of Humanities, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

On the Question of Tolerance Formation in Youth Medium of the Modern Russian Society. P. 38-41.

The problem of tolerance is urgent for Russia as the multinational, multiconfessional country with various cultures and various problems in intercultural relations.

Gamburg K.S., *Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Didactic Conditions of the Organization and Use of Virtual Stand Lab Works (VSLW) as the Form of Context Education at a Technological Higher Educational Establishment. P. 42-44.

Virtual stand lab works are considered as one of the forms of pedagogical technologies in context education.

METALLURGY OF THE 21st CENTURY

Merker E.E, *Ph.D. in Science, Professor;*
Semin A.E., *Ph.D. in Science, Professor ;*
Timofejev P.V., *Assistant Professor*

Method of Liquid Steel Nitriding in a Ladle. P. 45-47.

The paper is dedicated to the improvement of the efficiency of liquid steel nitrogen treatment in a ladle.

Krakht V.B., *Professor, Academician, IAES, Director, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys;*
Gavrilov O.S., *Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Influence of Various Reduction Speeds on the Process of Rolling with Rollers Convergence. P. 48-56.

The paper dwells on the influence of various reduction speeds on the process of rolling with rollers convergence.

Korolkova L.N., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Investigation of the Mass Exchange Processes with Carbon Oxide Reburning by Oxygen Streams. P. 57-59.

The paper dwells on the use of the overhead layer streams system of the two-layer tuyere for carbon monoxide reburning in the local volume.

Kozhukhov A.A., *Ph.D. in Science, Assiatant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Mathematical Description of the Carbon Oxide Reburning process in the Work Area of the Oxygen Converter. P. 60-63.

The paper provides mathematical description of the oxygen stream spreading in the work area of the oxygen converter and carbon oxide burning in it.

Bogatov E.M, *Ph.D. in Science, Assistant Professor, Chair of Higher Mathematics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Modelling of Pocketed Metal High Temperature Heating in Transparent Medium with Asymptomatic Desintegration Method. P. 64-75.

The paper provides first order precision equation on the small parameter ε on the basis of asymptomatic disintegrations, which describes the process of heat transmission in two phase periodic medium of the type gas-metal.

Sergijev A.P., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys;*

Eremenko A.Y., *Post-Graduate Student, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Recondition of Bush-Neck of Hydrodynamic Roller Foots in Liquid-Abrasive Medium. P. 76-77.

The paper dwells on the problems of reconditioning of bearing sleeves necks of roller foots of mill 350.

Sergijev A.P., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys;*

Eremenko A.Y., *Post-Graduate Student, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Investigation of Technological Load Characteristics with Liquid-Abrasive Parts Treatment. P. 78-81.

The paper dwells on the characteristics of liquid-abrasive parts treatment.

Stadnichuk V.I., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys;*

Mikhailov A.P., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

New Heat Resistant Steel for Aglomeration Machines Fire-Bars. P. 82-85.

The paper dwells on the possibility of increasing heat resistance of fire-bars of agglomeration machines. The authors suggest a new steel composition and determine the influence of the main elements on its fire resistance.

URGENT PROBLEMS OF ECONOMY

Pavlenko N.E., *Ph.D. in Economics, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys, Advisor to the Governor*

Theoretical and Application Problems of Modern Economy. P. 86-92.

The paper provides the author's point of view on the major problems of theory and practice of teaching Economics, methodology of research in the field of efficiency assessment, remuneration, tax system, price formation and working out of concepts on the regulation of public production.

Karpov E.A., *Ph.D. in Economics, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Akimova E.V., *Senior Teacher, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Research on the Influence of External Factors on Industrial Companies of Building Materials Production Sector. P. 93-95.

The paper suggests the overview and assessment of building materials sector according to the criteria of direct and indirect influence on the company management.

Karpov E.A., *Ph.D. in Economics, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Rovenskikh M.V., *Senior Teacher, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Industrial Company Risks Dynamics in the Process of its Development. P. 96-99.

The paper analyses the company development mechanism, reveals its major stages, determines risks faced by the company at each stage of its development.

Vinokhodova A.F., *Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Pilyugina E.S., *Economist, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Methodology of Balance and Financial Result Prognosis Through the Instruments of Economic and Mathematical Modeling. P. 100-103.

The paper describes the initial stage of planning, which includes the following blocks: "balance - trend", "financial result - trend" and provides all round assessment of company trends.

Vinokhodova A.F., *Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Polyakova E.V., *Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Problems of Financial Ensuring of Pension System under the Conditions of Reform. P. 104-110.

Pension reform of 2002 was caused by the necessity of crisis prevention of the existing system of pension ensuring mainly due to the lack of resources to cover pension payments. Even today four years after the reform there exist problems of financial ensuring of pension system, the solution of which requires amendments of the legislative system of the Russian Federation in general.

Malashenko V.P., *Professor, Deputy Director for Research, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Ant Inflation Policy and its Influence on Life Quality. P. 111-113.

The paper provides the evaluation of the anti inflation policy carried out by the Government of the Russian Federation. as a preventive measure against inflation growth the author suggests to return to differentiated income tax.

Malashenko V.P., *Professor, Deputy Director for Research, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Trade Unions as the Instrument to Create a Socially Balanced Society (dedicated to Russian Trade Unions Centennial). P. 114-117.

The article dwells on certain historical aspects of the development of the trade union movement and the activities of Russian trade unions.

Lyakhova N.I., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Municipal Property as the Source of Local Budgetary Income. P. 118-120.

The paper suggests the classification of the property types, makes an attempt to determine the place of municipal property as one of the sources of local budgetary income.

Lyakhova N.I., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Pankratova I.A., *Senior Teacher, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Analysis of the Regional Budget Conditions. P. 121-123.

The paper provides the analysis of the group the of Russian Federation regions according to their consolidated budgets fro the years 1992–2003.

Novik I.V., *Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Kobseva N.G., *Economist, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Analysis of the Existing Methods of Investment Projects Assessment. P. 124-127.

Selection of the best investment project to a great extent is determined by the applied methodology of its efficiency assessment. The most widespread at present are dynamic methods based on discounted assessments.

Chentsova E.P., *Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

The Mechanism of Formation and Implementation of the Company Competition Strategy. P. 128-129.

The methodological approach to the formation of competition strategy suggested in the paper makes it possible to combine the conditions of external environment with the opportunities and goals of the company functioning in market conditions.

Chernikova A.A., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Sirotkina N.V., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Perspective Directions of Competitive Advantages Realization by Today's Industrial Companies. P. 130-133.

The paper deals with the perspective directions of ensuring strategic stability of the companies in the market through the realization of its competitive advantages and comprehensive influence on its internal and external environment.

Chernikova A.A., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Sirotkina N.V., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Discriminant Model of Integral Assessment of the Company Financial Situation. P. 134-140.

In the given paper econometric model of the company financial situation integral assessment is suggested for the practical use in business activity for diagnosis and early prevention of financial crisis as well as for the evaluation of financial sustainability of potential partners and credit worthiness of loan takers.

Chernikova A.A., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Sirotkina N.V., *Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Problems of the Efficiency Production Management Evaluation and Their Solution. P. 141-144.

The paper deals with the problems of the efficiency production management assessment and their solution.

Sobinov V.N., *Assistant Professor, Chernikova A.A., Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Vinogradskaya O.V., *Senior Teacher, Chernikova A.A., Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Tachkova O.V., *Engineer, Chernikova A.A., Ph.D. in Economics, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Algorithm of Production Capacities Introduction. P. 145-151.

The paper dwells on the mathematical models and algorithms of investment calculations and capacities for the sectoral development.

PRODUCTION TECHNOLOGIES

Avdejev V.I., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Kravchenko O.F., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Kravchenko N.V., *Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

On the Methodology of the Evaluation of NPS Pipelines Vibroload. P. 152-157.

The paper dwells on the methodology of the evaluation of vibroload on the NPS. pipelines on the basis of real measurements of the vibration parameters and analysis of the dynamic characteristics.

Avdejev V.I., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Kravchenko O.F., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Kravchenko N.V., *Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Analysis of Stressed Condition in the Heat Exchange Pipes of the Steam Generator. P. 158-162.

The paper provides results of the analytical research in the stressed and deformed condition of the heat exchange tubes of the NPS stem generator, analyses the influence of different geometric parameters of longitude section on the stressed condition in the heat exchange tubes.

Bojeva L.M., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Development of Information Banking System for Controlling Accounting Discipline Adherence by Organizations. P. 163-166.

The paper deals with the problems of introducing information systems in banking activities with the view of improving the work of the bank personnel.

Bojeva L.M., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Automation Planning System for Equipment Repairing for the Organization of Repairs Services at a Medium Size Enterprise. P. 167-169.

The paper suggests mathematical models for the optimization of inter repair periods, works out necessary for this purpose software and envisages organizational measures to introduce information systems for repairing and maintanance.

Gorety V.V., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

How to Improve the Conditions of Local Roads for General Purposes in Belgorod Region. P. 170-172.

The paper suggests using the waste materials of KMA and sulphur, by-product of oil and gases purification for the improvement of the quality and durability of the asphalt and concrete surfaces of roads.

Gorety V.V., *Ph.D. in Economics, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Goretaya N.O., *Head of the Construction Laboratory, KMA*

The Influence o0f Hygroscopicity on the Timber Strength of Asp and Birch Modified with Sulphur. P. 173-175.

Modified timber possesses improved hygroscopic properties due to the physical and chemical changes in the material of cell walls. The timber saturated with sulphur changes its strength due to the changes in humidity and sulphur content.

Lossev Y.G., *Ph.D. in Science, Professor, Head of Industrial and Civil Construction Department, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Lossev K.Y., *Engineer, Engineering Construction Firm*

Use of the Hierarchy Method Analysis in Decision Making During Design and Construction of Buildings. P. 176-181.

The hierarchy analysis method, its relevant models and algorithms are suggested to be implemented for the solution of wide range construction tasks and decision making sub-systems in adaptable mobile construction of different objects.

Lunev L.A., *Ph.D. in Science, Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

On the Beam Constructions of the Pipe Systems Engineering Structures. P. 182-183.

At present beam and pipe constructions of the pipeline system engineering structures are often used in different sectors of industry (oil extraction, communal services, factory pipeline systems).

Nagda B.Y., *Senior Teacher, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Nagda Y.A., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Calculations and Design of Power Transmission Line Supports. P. 184-188.

The authors suggest new approaches to the calculations and design of power transmission line supports.

Pavlenko S.V., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Modern System of Main Electric Drives Control in Open Pit Excavator. P. 189-191.

The paper dwells on the modern system main electric drives control in open pit excavators at Lebedinsky and Stoylensky Mining and Enriching Complexes and analyses the advantages of digital transmitters usage.

Podgorny I.E., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Yakovleva G.R., *Ph.D. in Science, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

The Influence of Power Take-Off Shaft Stiffness on the Work of Machine and Transport Unit. P. 192-194.

On the basis of the mathematical model of vacillations in the drive unit the authors received the dependence of average quadratic moment deviation on the stiffness of the power take-off shaft.

PHILOSOPHY. SCIENCE. CULTURE

Mukhina Z.Z., *Ph.D. in History, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Pivovarova L.N., *Senior Teacher, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Russian Peasant Woman of the Central and Southern Provinces of Russia in the Second Half of the 19th Century and the Beginning of the 20th century: Family Life Features. P. 195-200.

The paper analyses factors (economic situation of the family; its form (large or small); marital status (married or single woman); place an role of the husband in the family (senior woman, senior daughter-in-law, junior daughter-in-law, woman-mother in a small family); business activity of women etc., which influenced the status of Russian peasant woman in central and southern provinces of Russia in the second half of the 19th century and the beginning of the 20th century.

Milovidova L.Ye., *Ph.D. in Psychology, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

On the Research in the Civil Position and Patriotism of Students. P. 201-208.

The paper deals with the problems of upbringing and education of students at state university.

Pushkarenko E.A., *Ph.D. in History, Assistant Professor, Chair of Humanities, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Starooskolsky Region on the Eve of Fascist Occupation (June 1941 – July 1942). P. 209-212.

The paper provides the analysis of the political and economic situation in Starooskolsky region on the eve of the fascist occupation in June 1941 – July 1942.

Vilikotskaya L.A., *Ph.D. in Philosophy, Assistant Professor, Chair of Humanities, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Man's Image as a Spiritual Being in Philosophical Anthropology of N.N. Sreakhov and P.E. Astafiev. P. 213-217.

The paper provides an attempt of interpreting philosophic ideas on the essence of a man of two outstanding thinkers of the 19th century N.N. Strakhov and P.E. Astafiev.

Kannykin S.V., *Ph.D. in Philosophy, Assistant Professor, Starooskolsky Technological Institute, Moscow Institute of Steel and Alloys*

Text and the Strategy of its Understanding. P. 218-227.

The paper dwells upon the rehabilitation and to a great extent cardinal rethinking of the ancient art of text interpretation – hermeneutics.