#### ШАЛЫМОВ РОМАН ВАДИМОВИЧ

кандидат технических наук, заместитель декана по приему и профориентационной работе факультета информационно-измерительных и биотехнических систем Санкт-Петербургского государственного электротехнического университета «ЛЭТИ» имени В.И. Ульянов (Ленина)

E-mail: rvshalymov@etu.ru

#### ШАПОШНИКОВ СЕРГЕЙ ОЛЕГОВИЧ

кандидат технических наук, доцент, руководитель информационно-методического центра развития инженерного образования Санкт-Петербургского государственного электротехнического университета, заслуженный работник высшей школы Российской Феде-

E-mail: soshaposhnikov@gmail.com

#### **IIIATPOBA** АНАСТАСИЯ СЕРГЕЕВНА

аспирант кафедры обогащения полезных ископаемых и охраны окружаюшей среды Иркутского национального исследовательского технического университета

E-mail: unicorn1990@rambler.ru

#### ШВЕЦОВ ВЛАДИМИР ИВАНОВИЧ

доктор технических наук, профессор, профессор кафедры математического обеспечения и суперкомпьютерных технологий Института информационных технологий математики и механики Нижегородского государственного университета им. Н.И.Лобачевского, лауреат премии Правительства Российской Федерации в области образования, почетный работник высшего образования Российской Федерации

E-mail: shvetsov@unn.ru

#### **ШЕВЧЕНКО МАЙЯ ЕВГЕНЬЕВНА**

кандидат технических наук, доцент, доцент Санкт-Петербургского государственного электротехнического университета «ЛЭТИ» им. В.И. Ульянова (Ленина)

E-mail: m e shevchenko@mail.ru

#### **ШЕЙНБАУМ** ВИКТОР СОЛОМОНОВИЧ

кандидат технических наук, доцент, советник ректора, профессор кафедры Машин и оборудования нефтяной и газовой промышленности РГУ нефти и газа имени И.М. Губкина, лауреат премии правительства Российской Федерации в области образования, заслуженный работник высшей школы, заслуженный работник Минтопэнерго Российской Федерации, отличник высшей школы, почетный работник высшего профессионального образования Российской Федерации, почетный нефтяник, почетный работник газовой промышленности

E-mail: shvs@gubkin.ru

#### ШМАКОВ БОРИС ВАСИЛЬЕВИЧ

кандидат экономических наук, доцент, доцент кафедры «Предпринимательство и менеджмент» Южно-Уральского государственного университета (НИУ)

E-mail: shboris17a@mail.ru

#### ШТРИПЛИНГ ЛЕВ ОТТОВИЧ

доктор технических наук, профессор, проректор по учебно-методической работе Омского государственного технического университета, почетный работник высшей школы Российской Федерации

E-mail: los@omgtu.ru

### **Summary**

#### **ENGINEERING STAFF DEVELOPMENT IN** RESEARCH UNIVERSITY: SYNERGY OF TRADITIONS AND INNOVATIONS

V.G. Ivanov, S.V. Barabanova, M.F. Galikhanov, L.T. Miftakhutdinova Kazan National Research Technological University

The paper deals with innovative processes in additional engineering professional education based on the modern state educational policy, new educational technologies, and multidisciplinary approach. The experience of KNRTU in improvement and development of supplementary professional education in cooperation with business partners programs is suggested as a positive model.

#### GLOBAL INTERDISCIPLINARY TEAMS IN ENGINEERING EDUCATION

I.C. Quadrado Instituto Superior de Engenharia do Porto (ISEP) K.K. Tolkacheva

National Research Tomsk Polytechnic University

Association for Engineering Education of Russia

Multidisciplinary approach including globally conditioned multidisciplinarity has been discussed in the context of engineering education since the beginning of the 21-th century. The international community has not disputed on the significance of multidisciplinary approach for engineers, but the key issue remains - how to apply theory for practice in both curricula development and learning process itself. Problemoriented learning and CDIO initiative are constructive approaches that are focused on these issues. The given article considers the ways of overcoming social distance in global interdisciplinary teams working in the sphere of education. The other question is how serious this challenge

is for a leader of global interdisciplinary team. Management of social distance plays a major role in revealing social distance and its successful overcoming. This approach includes a number of basic components, namely: structure, process, language, identity, and technologies. Efficiency of multidisciplinary and interdisciplinary training depends on the general dynamics of a team. Different strategies for improving multidisciplinary teams' work in engineering education are described in the paper.

#### **ENGINEERS FOR INTERDISCIPLINARY TEAMS AND PROJECTS: MANAGEMENT** OF TRAINING PROCESS

Yu.P. Pokholkov National Research Tomsk Polytechnic University

of Russia

The paper deals with the management issues of training specialists in the field of engineering and technology ready to work in interdisciplinary teams and projects. Interdisciplinarity in the engineering education is considered as a basis for critically new competitive engineering solutions. The indicators proving the presence of interdisciplinary management system at university are outlined. Based on the elaborated principles of interdisciplinary activities a set of required tools and elements to manage interdisciplinary training of engineers is presented.

#### INTERDISCIPLINARY APPROACH IN EN-**GINEERING EDUCATION IN TERMS OF** INTERNATIONAL FRAMEWORKS AND **METHODOLOGY**

V.M. Kutuzov, V.N. Pavlov, D.V. Puzankov, S.O. Shaposhnikov Saint Petersburg Electrotechnical University "LETI"

The article analyzes the standards and guidelines of international educational

SUMMARY

SUMMARY

frameworks and initiatives in terms of interdisciplinarity of degree programmes in Engineering and Technology.

#### POSSIBLE ALTERNATIVE OF INTERDISCI-PLINARY LEARNING IN ENGINEERING STAFF TRAINING SYSTEM OF RUSSIA

I.N. Konyukhov Municipal state funded institution of additional education "Parus", Ufa city

At present the system of supplementary education for children of school age does not imply interdisciplinary learning in Russia. One of the alternatives in implementation of such learning is development and implementation of supplementary education program of different specifications for school age children as well as training teachers capable of working with such programs.

#### **ACADEMIC PROCESS IN PRACTICAL ACTIVITY AS A MAIN TREND IN DEVELOPMENT OF MODERN ENGINEERING EDUCATION**

V.V. Shalay, A.V. Kosykh, A.V. Myshlyavtsev, L.O. Shtripling Omsk State Technical University

The article is concerned with experience and perspectives of practice-based learning development.

#### INTERDISCIPLINARY APPROACH IN **INTERACTIVE SELF-LEARNING**

R.Z. Bogoudinova, I.M. Gorordetskaya Kazan National Research Technological University

The article considers theoreticalmethodological bases of interdisciplinary approach to development of interactive self-education, principles of academic process organization using interactive learning techniques.

#### INTERDISCIPLINARY INTERACTION FROM THE POINT OF VIEW OF ISO 9001-2015 STANDARDS

M.V. Akulenok National Research University of Electronic Technology MIET

The article is devoted to the analysis of quality management system in management of interdisciplinary interaction and trends in university QMS improvement in accordance with the requirements of new implemented edition of international ISO 9000 standards, in particular, the requirement for risk management.

#### TECHNOLOGY IN THE LEARNING **DESIGN BY UNIVERSITY TEACHERS IN** THE RUSSIAN CONTEXT

R. Martínez-López, M. Reznichenko Samara National Research University (Russia) C. Yot, C. Marcelo

University of Seville (Spain)

This research describes the type of the learning activities technology used by the teachers at the Russian Universities. Results offer evidence to the strong influence of confidence as a predictor of teachers' technology use and transfer. An instrument is adapted in Russian context for future research.

#### **COMPUTER APPLICATIONS IN ENGINEERING EDUCATION: NEW OPPORTUNITIES IN TRAINING ENGINEERS FOR CREATIVE ECONOMYY**

I.V. Makarova, R.G. Khabibullin Kazan Federal University A.M. Ushenin, S.A. Mikheeva, V.S. Karabtsev PTC "KAMAZ"

The article addresses the issue of ensuring qualitative training of specialists for mechanical engineering and road-and-transportation complex. To increase the competitiveness of the personnel, a new education pattern is proposed. It has been revealed that introduction of system approach in engineering training makes it possible to handle the problems in training engineers able to design, manufacture, and maintain complex machines and equipment.

#### SYSTEM OF JOINT PROFILE TRAINING OF STAFF BASED ON INNOVATIVE RESEARCH AND DEVELOPMENT

I.R. Kuznetsov, V.N. Malyshev, M.E. Shevchenko Saint Petersburg Electrotechnical University "LETI" O.G. Petkau, A.Yu. Tarakanov Scientific Research Institute Vektor

The article presents university innovative strategy of solving scientific-practical problems and specialized staff training for research and production focused on development of advanced interdisciplinary staff training and modernization of educational environment in the sphere of perspective means of radioelectronics as well as effective commercialization of research and developments.

#### SYNERGY OF EDUCATIONAL CLUSTER DEVELOPMENT IN THE FRAMEWORK OF UNIVERSITY SUPPLEMENTARY PROFESSIONAL EDUCATION

A.G. Zakharova, K.O. Ponomareva National Research Tomsk Polytechnic University

The article considers the advantages of cluster supplementary professional education. The synergy is analyzed in development of curricula clusters in the context of university supplementary professional education. The strategy of curricula cluster development is suggested by means of scenario development based on a "neosystem approach".

#### **DEVELOPMENT OF PROFESSIONAL COMPETENCIES IN INTEGRATED** PROGRAMS OF ENGINEERING **EDUCATION**

V.M. Kutuzov, N.V. Lysenko Saint Petersburg Electrotechnical University "LETI"

The article deals with peculiarities in Bachelor-Master degree education system, presents the employers' requirements for the university graduates' competencies, and describes the types of competence centers implementing educational programs.

#### **INTERDISCIPLINARITY IN EDUCATION: EDUCATION PROGRAMMME DESIGN**

L.V. Redin, V.G. Ivanov Kazan National Research Technological University

The significance of interdisciplinarity in education under the condition of sharp growth in patent activity in developed countries and increased role of intellectual property items in modern economy are shown. Inderdisciplinarity is based on the network relations among the studied disciplines. Goal, content, trends in interdisciplinarity are presented in the system of re-training, staff development, and Bachelors' education.

#### **DEVELOPMENT OF ENVIRONMENT** FOR TRAINING SPECIALISTS FOR INTERDISCIPLINARY RESEARCH PROJECTS USING RASA CENTER IN TOMSK AS AN EXAMPLE

Yu.Sh. Sirazitdinova, O.O. Bugaeva National Research Tomsk Polytechnic University

At present, the Russian system of higher professional education stands at a pivotal moment. Challenges of globalization and international competition for talented specialists pose new problems for the Russian universities. The article considers experience of Tomsk Polytechnic University in development of environment for training students in interdisciplinary research projects in collaboration with leading scientists and research-educational centers.

#### **ENGINEERS TRAINING FOR WORKING** IN INTERDISCIPLINARY TEAMS AND **PROJECTS**

V.V. Kondrať ev Kazan National Research Technological University

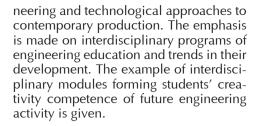
The necessity of students' methodological training in an engineering university is explained. It is improved by new engi-



SUMMARY

SUMMARY

ОБРАЗОВАНИЕ



#### **EDUCATIONAL STANDARDS AS A BASIS** FOR INTERDISCIPLINARY INTEGRATIVE **MODULE**

G.V. Bukalova State University ESPC, Orel

The author proves axiological function of the integrative approach which is implemented for the new educational standards to be applied for engineering education. The conditions to enhance discipline integration process are determined in terms

sures the high quality of education programs in technologies, is to develop the abilities and skills of comprehensive engineering. It has been found out that the key engineer's competences to be developed in Russia are leadership skills. The interconnection between comprehensive engineering and leadership skills has been revealed. Also, it has been established that the four abilities and relevant skills included in emotional intelligence (EQ) are essential professional qualities of the leader.

#### PARTICULARITIES OF SELF-STUDY WITHIN ELECTRONICS AND **NANO-ELECTRONICS EDUCATION PROGRAMMES**

M.V. Akulenok, A.V. Zheleznyakova National Research University of Elec-

#### ADOPTION OF MODERN STANDARDS FOR BACHELOR AND MASTER DEGREE PROGRAMMES (INFORMATION SYSTEMS **AND TECHNOLOGIES**)

V.A. Dubenetsky, A.G. Kuznetsov, V.V. Tsekhanovsky Saint Petersburg Électrotechnical University "LETI"

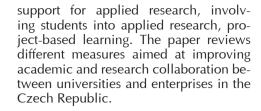
The paper considers different approaches to the use of models, which are applied in the sphere of information technologies and specified in modern standards and guidelines, for the development of bachelor and master degree programs. the specialty of Information Systems and Technologies. The authors give examples of educational process management based on Unified Modeling Language (UML).

#### **ECONOMIC. SCIENTIFIC AND TECHNICAL FACTORS IN OUALITY MANAGEMENT**

V.P. Semenov Saint Petersburg Electrotechnical University "LETI"

The article examines interaction of economic, scientific and technical factors in quality management training including not only development of new approaches, but also design of integrated systems based on the principles of total quality management. In order to estimate efficiency of interdisciplinary projects, multi-criteria and multi-model approaches are considered essential.

### INTERDISCIPLINARITY IN PRACTICE-ORIENTED BACHELOR'S TRAINING IN



#### THE VITAL COLLABORATION OF **INDUSTRY AND ACADEMIA FOR** THE CREATION OF INTERDISCIPLINARY **REAL WORLD STUDENT PROJECTS**

P.A. Sanger Purdue University, USA

The global economy in which engineers live is in constant change and evolution. The requirements for engineers today include not only solid technical knowledge but also make them know how to apply that knowledge to real world problems. For these reasons, engineering education must reach beyond the academic world and draw in industry. The real world experiences that engineering students must have to be effective come from industry and not the more research oriented university environment. This paper reviews what avenues are available to enrich and grow the university/industry relationship and in particular, this paper describes an approach successfully implemented in the U.S. of industry sponsored and driven, final year, interdisciplinary, year long, capstone projects.

#### PROFESSIONAL ACTIVITIES IN **VIRTUAL LEARNING ENVIRONMENT: INTERDISCIPLINARY TRAINING CASE STUDY**

V.S. Sheinbaum, P.V. Pvatibratov, M.S. Khokhlova, D.V. Grishin, A.A. Pel'menyeva Gubkin Russian State University of Oil and Gas (National Research University)

The technology of performing professional activities in virtual learning environment has been developed and is being successfully implemented at Gubkin Russian State University of Oil and Gas. The education is provided in the form of trainings for interdisciplinary groups of

students, which simulate real world proiect and production activities. The paper describes one of the training case studies.

#### POWERFUL INTERDISCIPLINARY ADULT **EDUCATION FOR INDUSTRY:** "COMBINING ANDRAGOGY AND PROJECT BASED LEARNING"

I.V. Pavlova, V.G. Ivanov Kazan National Research Technological University P.A. Sanger Purdue University, USA

In this rapidly changing world of technology and economic conditions, it is essential that practicing professionals continue to grow in their skills and knowledge in order to stay competitive and relevant in the industrial workplace. This paper describes an approach to adult education that combines the best techniques of andragogy with project-based learning taking advantage of the experience, maturity and wisdom of the adult learner. Well-known project based learning (PBL) exercises such as the Skyscraper Project [1] and the "Deep Dive" video [2] have been adapted and expanded to include andragogic approaches and capitalize on the knowledge and depth of maturity in these mature learners.

#### **INTERDISCIPLINARY PROIECT** MANAGEMENT IN NETWORKING **COOPERATION: TRAINING STUDENTS** OF BACHELOR'S DEGREE PROGRAMME (MACHINERY ENGINEERING)

M.A. Loschilova, M.S. Vaichuk Urga Technological Institute, National Research Tomsk Polytechnic University

The paper reveals the necessity for new open system of professional education to eliminate the gap between labor market demand and education services supplied. The authors suggest the ways for networking cooperation in training students of bachelor's degree in machinery engineering programme, which is based on the principles of openness and continuation.

#### TRAINING TEACHERS OF ENGINEERING ON THE BASIS OF INTERDISCIPLINARY APPROACH

V.V. Kondraťev, V.G. Ivanov Kazan National Research Technological University

The paper deals with one of the topical issues of today's engineering education. i.e. integrated interdisciplinary knowledge acquired by an engineer. Considering teachers of engineering training based on interdisciplinary approach, the authors analyze such notions as "interdisciplinarity" and "interdisciplinary approach". These notions are connected with changes in the system of university teachers training and continuing professional development, which are specified in the paper. The most important methodological principle to ensure the efficiency of teachers training system has been identified - the education system should be sensitive to the changes in science, technics and technologies, which, in turn, result in changes in engineer's and teacher's professional activities.

#### IMPROVED TEACHING OF MATHEMATICS AS AN IMPORTANT **COMPONENT OF INTERDISCIPLINARY ENGINEERING EDUCATION**

V.I. Shvetsov Lobachevsky State University of Nizhni Novgorod S. Sosnovsky German Center for Artificial Intelligence (DFKI)

The paper considers the outcomes of the project "Modern Educational Technologies for Math Curricula in Engineering Education of Russia" (Tempus), implemented by the consortium of European and Russian higher educations institutions. Having analyzed the national and international experience in teaching mathematics, the authors suggest a new method to enhance math teaching thus improving the quality of engineering education. The method implies using the intelligent system of e-learning.

#### ADDITIONAL PROFESSIONAL **EDUCATION FOR STUDENTS OF** TECHNOLOGICAL UNIVERSITY BASED ON INTERDISCIPLINARY APPROACHH

F.T. Shageeva, V.G. Ivanov Kazan National Research Technological University

The article describes the project of National Research University. It has been revealed that additional professional education based on the interdisciplinary approach enhances interdisciplinary competency of students, thus, increasing their competitiveness. Such a training reguires not only application of universal education technologies, but also search for numerous alternative solutions.

#### IMPROVING TRAINING OF YOUNG SPECIALISTS FOR THE ENTERPRISES FOR ENGINEERING, REPAIR AND MOUNTING OF THE EOUIPMENT

R.G. Abdeev, E.R. Abdeev, E.V. Bakieva, M.A. Lobanov Bashkir State University

The article considers the implementation of network as a form of training in the higher school. It highlights the necessity of implementing this form of training students for engineering enterprises involved in repair and installation of equipment. The authors offer a model of interaction between engineering enterprises in the framework of network industry educational programs.

#### **CROSS-CULTURAL INTERDISCIPLINARY** STUDY OF LEARNING MOTIVATION OF ENGINEERING STUDENTS IN RUSSIA AND THE USA

P.A. Sanger Purdue University, USA I.M. Gorodetskaya, V.G. Ivanov Kazan National Research Technological University

The paper addresses cross-cultural analysis of the learning motivation of Russian and US students majoring in engineering. The study is carried out with the use of psychological and pedagogical

SUMMARY

SUMMARY

ИНЖЕНЕРНОЕ ОБРАЗОВАНИЕ 20'2016

methodology. Empiric analysis has not revealed significant differences between the Russian and US groups, however some peculiarities in the hierarchy and structure of motivational sphere were found and should be taken into consideration in organizing international mobility programs.

## TRAINING TEACHERS TO WORK ON INTERDISCIPLINARY FSA- AND TRIZ-BASED PROJECTS: EXPERIENCE AND PROSPECTS

V.V. Likholetov, B.V. Shmakov South Ural State University (National research university)

The paper analyses the ways of improving the quality of engineering training in Russia. It proves the importance of using Russian experience in problem-solving and project-based learning as well as training teachers to work on interdisciplinary FSA- and TRIZ-based projects.

## STUDENTS' SATISFACTION WITH QUALITY OF EDUCATION AS SYNERGY FACTOR

R.Z. Bogoudinova, V.G. Ivanov, D.N. Mingazova, O.Yu. Khatsrinova Kazan National Research Technological University

The article provides a method to evaluate the quality of educational process. The authors suggest evaluating the quality of education in terms of consumer's satisfaction, taking into consideration the ponderability coefficient of each quality indicator. The analysis has revealed the dependence between positive tendencies in classroom management and satisfaction level of students.

## PROFESSIONAL IDENTITY AS A FACTOR OF PROFESSIONAL MOBILITY

M.G. Reznichenko, V.I. Stychkova Samara National Research University

Professional mobility is an important factor of engineer's career development. The authors emphasize that developed

status of professional identity is a precondition for the professional mobility. The article provides the results of tests that revealed a negative trend of professional identity development. Contextual education approach is proposed as a solution to the existing problem.

## SYNERGY OF INTERDISCIPLINARY TEACHING IN HUMANITIES

L.M. Bogatova Kazan National Research Technological University

The paper deals with synergy effect resulted from interdisciplinary teaching in humanities. The author identifies homogeneous and heterogeneous synergies and pays special attention to interdisciplinary aspect of the humanities. The analysis of interaction between moral and law components of the education process if higher school reveals that the synergy effect has a profound social and cultural context related to formation of personality of a certain type.

# INTERDISCIPLINARY CONNECTIONS IMPLEMENTED IN MORAL EDUCATION OF STUDENTS IN THE FRAME OF HUMANITIES PROVIDED BY HIGHER ENGINEERING SCHOOL

E.N. Tarasova Kazan National Research Technological University

The paper discusses the results of the study devoted to moral education of students in the frame of humanities provided by higher engineering school. The aim and content of humanities in terms of moral education has been identified. The issues specific for interdisciplinary connections in the frame of humanities provided for engineering students. Educational potential of humanities in the development of moral quality of students is defined. The paper also provides a brief review of the theoretical model of moral education of engineering students, which incorporate teaching of humanities in higher technical school.

#### EFFECTS OF INTERDISCIPLINARY EDUCATION ON THE ENGINEERING COMPETENCE

A.V. Szarka University of Debrecen

Interdisciplinarity is discussed as one of the effective tools to support enthusiasm of young generation for engineering; to increase motivation of engineering students; and to enhance the efficiency of collaboration between professionals from different fields. The paper describes the history of interdisciplinarity in engineering education, and dual education system that trains new graduates for real industrial environment of inter- and multidisciplinary activities.

#### AN INTERDISCIPLINARY APPROACH FOR ACQUIRING SOCIAL RESPONSIBILITY-RELATED COMPETENCE

J.J. Perez Universitat Politecnica de Catalunya

Graduate students should exhibit hard competences - specific knowledge - in their field of study and, also soft or transversal competences that provide complementary abilities to use the former in any specific environment. Social responsibility is among the list of transversal competences. This competence provides graduates a guidance to develop their activities as professionals within a framework of sustainable development, in such a way that projects include considerations concerning environmental, social and economic dimensions. In the present work we revise the concept of social responsibility and propose a quality assurance procedure to assess and improve the level of competence achieved by graduates.

#### DEVELOPMENT OF ECO-FRIENDLY TECHNOLOGY OF COLLOIDAL DEPOSIT UTILIZATION IN PULP AND PAPER INDUSTRY

A.V. Bogdanov, A.S. Shatrova, O.L. Kachor Irkutsk National Research Technical University

Development of eco-friendly technology for intensive processing of sludge-lignin deposits, which is based on the best available utilization methods, is one of the urgent task to be addressed. The proposed technology to recover deposits in the storage pits of Baikalsk Pulp and Paper Mill on the basis of natural freezing allows reducing the costs and enhancing environmental safety of the project.

#### FORMING PROFESSIONAL COMPETENCE AMONG GRADUATES OF ENVIRON-MENTAL ENGINEERING PROGRAMMS ON THE BASIS OF MULTIDISCIPLINARY APPROACH

A.E. Irismetov Kazan National Resea

Kazan National Research Technological University

Kazan National Research Technological University A.E. Irismetov

The article discusses new professional require¬ments for environmental engineers, who should ensure environmental protection in new socio-economic conditions. It also provides the concept of professional competence of the environmental engineer.

### PROJECT MANAGERS: WHAT SHOULD THEY BE LIKE?

A.A. Dulzon National Research Tomsk Polytechnic University

The article discusses working conditions and basic duties of project managers in comparison with those of line managers. It provides the main duties of project managers and basic requirements for their professional, communicative and

**330 331** 



personal characteristics and competencies. It also discusses the issue of project manager salary.

## DEPENDENCE OF INTERDISCIPLINARY PROJECT MANAGEMENT ON DIFFERENCE BETWEEN CORPORATE CULTURES

P.A. Podrezova, V.M. Kizeev National Research Tomsk Polytechnic University

The article discusses the influence of corporate culture on a large interdisciplinary project organization. In particular, in the case where large organizations involved in a project, have a vertical linear structure and unique corporate culture. The article describes the project «The Opening of the research and educational center «Modern manufacturing technologies» as an example.

#### LEADERSHIP AND CORPORATE CULTURE, THEIR IMPACT ON COMPANY GROWTH

M.S. Vaychuk National Research Tomsk Polytechnic University

The term "values" is no longer used only in a political context. The intangible factors become the key of stability and a driver of development. In this regard, the article provides the correlation of corporate culture development and the presence of a strong leader in a company with dynamics of companies' profitability ratios.

# Профессионально-общественная аккредитация образовательных программ (результаты)

Ассоциация инженерного образования России около 20 лет работает над созданием и развитием системы общественно-профессиональной аккредитации образовательных программ в области техники и технологии в России.

АИОР является членом самых авторитетных международных альянсов по аккредитации инженерных образовательных программ, таких как Международный Инженерный Альянс (International Engineering Alliance), Вашингтонское соглашение (Washington Accord), Европейская сеть по аккредитации инженерного образования (European Network for Accreditation of Engineering Education, ENAEE). АИОР – единственная организация в России, имеющая право присуждать аккредитованным программам европейский знак качества EUR-ACE label.

Профессионально-общественная аккредитации инженерных образовательных программ, проводимая АИОР, признана в большинстве развитых стран мира и является международной.

По результатам на 01.06.2016 процедуру профессионально-обшественной аккредитации АИОР прошли 424 образовательные программы (первого и второго цикла) 67 ведуших вузов России, Казахстана, Киргизии, Таджикистана, Узбекистана. Европейский знак качества EUR-ACE label присвоен 343 программе. Кроме того, аккредитовано 3 образовательных программы среднего профессионального образования 3 российских техникумов. Списки аккредитованных АИОР программ регулярно направляются в Рособрнадзор и аккредитационным организациям странучастниц Вашингтонского соглашения и ENAEE.

Наличие у вуза образовательных программ, имеюших международную аккредитацию, способствует укреплению престижа вуза в России и в мире, привлечению российских и иностранных студентов, расширению академической мобильности студентов, разработке совместных с зарубежными университетами образовательных программ, дает возможность выпускникам вуза претендовать на получение статуса профессионального инженера в международных регистрах АРЕС, FEANI.

Реестр образовательных программ, успешно прошедших процедуру профессионально-общественной аккредитации в АИОР, приводится далее.

332