



OUR AUTHORS

OUR AUTHOR

OUR AUTHORS

ANGÉLA VÁRADINÉ SZARKA

PhD, Dr.habil, Associate Professor, Head of Department of electrical and electronic Engineering, University of Debrecen

E-mail: angela.varadi@science.unideb.hu

CARLOS MARCELO

Professor in the Faculty of Sciences of Education at the University of Seville, Spain

E-mail: marcelo@us.es

CARMEN YOT

Research Assistant at the Faculty of Sciences of Education at the University of Seville, Spain E-mail: carmenyot@us.es

JUAN JESUS PEREZ

Professor, Department of Chemical Engineering, Universitat Politecnica de Catalunya, Spain E-mail: juan.jesus.perez@upc.edu

JOSÉ CARLOS QUADRADO

PhD, DSc, Habil in Engineering, Full Coordinating Professor, Vice President of Instituto Superior de Engenharia do Porto (ISEP)

E-mail: jcquadrado@gmail.com

LADISLAV MUSÍLEK

Professor, Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague, Czech Republic

E-mail: musilek@fjfi.cvut.cz

PHILLIP ALBERT SANGER

PhD, Full professor, School of Engineering Technology, Purdue Polytechnic Institute, Purdue University, USA

E-mail: psanger@purdue.edu

RUTH MARTINEZ-LOPEZ

PhD Candidate, Education Technology, Faculty of Sciences of Education at the University of Seville, Spain, Junior Researcher at Samara National Research University, Russia E-mail: rm@ssau.ru

SERGEY SOSNOVSKY

Head of the Intelligent e-Learning Technology Lab in the Centre for e-Learning Technology (CeLTech) at the German Center for Artificial Intelligence (DFKI)

E-mail: tandor20@rambler.ru

ABDEEV **RINAT GAZIZ'YANOVICH**

DSc (Engineering Sciences), Professor, Head of Production Machines and Equipment Department, Bashkir State University

E-mail: bgutmo@mail.ru,

arg@bgutmo.ru

ABDEEV ELDAR RINATOVICH

PhD (Engineering Sciences), Associate Professor, Production Machines and Equipment Department, Bashkir State University

E-mail: bgutmo@mail.ru, arg@bgutmo.ru

AKULYENOK MARINA VICTOROVNA

DSc (Engineering Sciences), Associate Professor, Department of Quality Control, National Research University of Electronic Technology MIET, Honorary Worker of Higher Professional Education E-mail: amv@s2q.ru

BAKIEVA **ELVIRA VALER'EVNA**

PhD (Pedagogy) Associate Professor, Production Machines and Equipment Department, Bashkir State University E-mail: bgutmo@mail.ru, bakieva@bgutmo.ru

BARABANOVA SVETLANA VASIL'EVNA

DSc (Law), Associate Professor; Professor of Legal Studies, Kazan National Research Technological University, Honorary Worker of Higher Professional Education

E-mail: sveba@inbox.ru

BOGATOVA LARISA MIKHAILOVNA

DSc (Philosophy), Associate Professor, Professor of General Philosophy Department, Kazan Federal University E-mail: bolami@inbox.ru

BOGDANOV ANDREY VICTOROVICH

DSc (Engineering Sciences), Professor, Department of Mineral Processing and Environmental Protection, Irkutsk National Research Technical University, Honorary Ecologist of Irkutsk Oblast E-mail: bogdanov.lab@istu.edu

BOGOUDINOVA ROZA ZAKIROVNA

DSc (Pedagogy), Professor, Department of Engineering Pedagogy and Psychology, Kazan National Research Technological University, Honorary Scientist of the RF. Government Award in Education E-mail: rozabog@bk.ru

BORONAKHIN ALEXANDER MIKHAILOVICH

University "LETI"

BUGAYEVA OLGA OLEGOVNA

versity

E-mail: oob1@tpu.ru

BUKALOVA GALINA VASIL'EVNA

Orel

VAICHUK **MIKHAIL SERGEEVICH**

Master-student, Department of Management and Technology in Higher Professional Education, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University E-mail: VaychukMS@gmail.com

DSc (Engineering Sciences), Associate Professor, Dean of Faculty of Information Measurement and Biotechnical Systems, Saint Petersburg Electrotechnical

E-mail: amboronahin@etu.ru

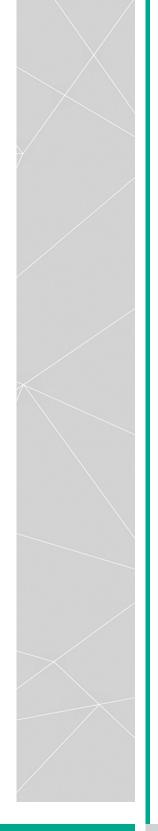
Master-student (Innovations in Higher Education), Department of Management and Technology in Higher Professional Education, Institute of Humanities, Social Sciences & Technologies, engineer of Design and Research Institute, National Research Tomsk Polytechnic Uni-

PhD (Pedagogy), Associate Professor, Department of Machine Service and maintenance, State University ESPC,

E-mail: 57orleya@gmail.com

ENGINEERING **EDUCATION** 20'2016





GALIKHANOV MANSUR FLORIDOVICH

DSc (Engineering Sciences), Professor, Vice-Director, Institute of Additional Professional Education, Kazan National Research Technological University E-mail: mgalikhanov@yandex.ru

GORODETSKAYA INNA MIKHAILOVNA

PhD (Psychology), Associate Professor, Expert in Academic Affairs, Additional Professional Education Institute, Kazan National Research Technological University

E-mail: innamgor@mail.ru

GRISHIN **DMITRY VYACHESLAVOVICH**

Senior lecturer, Oil and Gas Well Drilling Department, Gubkin Russian State University of Oil and Gas (National Research University); Head of Service department, Research and Design Center of Oil and Gas Technologies, Professional Engineer of the RF

E-mail: D Grishin@gasoilcenter.ru

DUBENETSKY VLADISLAV ALEKSEEVICH

PhD (Engineering Sciences), Associate Professor, Department of Information Systems, Saint Petersburg Electrotechnical University "LETI", Honorary Worker of Higher Professional Education of the RF E-mail: chr12@yandex.ru

DUL'ZON ALFRED ANDREEVICH

DSc (Engineering Sciences), Professor, Department of Engineering Entrepreneurship, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University, Honorary Scientist of the RF

OUR AUTHORS

E-mail: vizepres@tpu.ru

ZHELEZNYAKOVA ANASTASIA VYACHESLAVOVNA

PhD (Engineering Sciences), Associate Professor, Department of Functional Electronics Materials, National Research University of Electronic Technology MIFT

E-mail: stushka@bk.ru

ZAKHAROVA ANASTASIA GAVRIL'EVNA

Student, Department of Engineering Entrepreneurship, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University

E-mail: anastasiya_zakharova@mail.ru

IBRAGIMOV GASANGUSEYN IBRAGIMOVICH

DSc (Pedagogy), Professor, corresponding member of Russian Academy of Education, Professor of Engineering Pedagogy and Psychology Department, Kazan National Research Technological University, Honorary Scientist of the RF, Honorary Scientist of the Republic of Tatarstan, Government Award in Education of the RF (2005), Honorary Worker of Higher Professional Education of the RF, Honorary Worker of Vocational Education of the RF

E-mail:guseinibragimov@yandex.ru

IBRAGIMOVA ELENA MIKHAILOVNA

DSc (Pedagogy), Professor, Head of Theory and Methods of Teaching Law Department, Faculty of Law, Kazan Federal University, Honorary Teacher of the Republic of Tatarstan

E-mail: timop2001@mail.ru

IVANOV VASILY GRIGOR'EVICH

DSc (Pedagogy), Professor, First Vice Rector for Academic Affairs of Kazan National Research Technological University, Director of Additional Professional Education Institute, Head of Engineering Pedagogy and Psychology Department, corresponding member of Russian Academy of Pedagogical and Social Sciences, Honorary Worker of Higher Education of the RF

E-mail: dilanyr@mail.ru

IRISMETOV ALISHER IL'MURATOVICH

PhD (Pedagogy), Associate Professor, Department of Engineering Ecology, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University E-mail: alisher240381@mail.ru

KARABTSEV VLADIMIR SERGEEVICH

PhD (Engineering Sciences), Deputy Chief Designer for Science and Innovations, KAMAZ

E-mail: Vladimir.Karabtsev@kamaz.ru

KACHOR OLGA LEONIDOVNA

PhD (Engineering Sciences), Associate Professor, Department of Mineral Processing and Environmental Protection, Irkutsk National Research Technical University E-mail: oll ka@bk.ru

KIZEEV VENIAMIN MIKHAILOVICH

Senior lecturer, Department of Engineering Entrepreneurship, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University, director WIN Corp, Tomsk

E-mail: betula@tpu.ru

KONDRAT'EV VLADIMIR VLADIMIROVICH

DSc (Pedagogy), Associate Professor, Head of Professional Retraining and Advanced Training Center for University Professors of the Volga region and Urals. Head of Engineering Activity Methodology Department, Kazan National Research Technological Universityдоктор, RF Government Award in Education, Honorary Scientist of the Republic of Tatarstan F-mail: vvkondr@mail.ru

KONYUKHOV IGOR NIKOLAEVICH

tostan

E-mail: vestnikki@mail.ru

Methodologist, municipal state funded institution of additional education "Parus", Ufa, the Republic of Bashkor-

ENGINEERING **EDUCATION** 20'2016





KOSYKH ANATOLY VLADIMIROVICH

DSc (Engineering Sciences), Professor, Rector of Omsk State Technical University

E-mail: avkosykh@omgtu.ru

KUZNETSOV ALEXANDER GRIGOR'EVICH

PhD (Engineering Sciences), Senior Research Fellow, Associate Professor, Department of Information Systems, Saint Petersburg Electrotechnical University "LETI"

E-mail: chr12@yandex.ru

KUZNETSOV IGOR ROSTISLAVOVICH

PhD (Engineering Sciences), Associate Professor, Saint Petersburg Electrotechnical University "LETI"

E-mail: IRKuznetsov@etu.ru

KUTUZOV VLADIMIR MIKHAILOVICH

DSc (Engineering Sciences), Professor, Rector of Saint Petersburg Electrotechnical University "LETI", Honorary Worker of Higher Education of the RF, RF Government Award in Science and Technology, RF Government Award in Education E-mail: vmkutuzov@eltech.ru

LARIONOVA **OLGA ALEXANDROVNA**

Post-graduate student, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University

E-mail: larionova2802@rambler.ru

LIKHOLETOV VALERY VLADIMIROVICH

DSc (Pedagogy), PhD (Engineering Sciences), Associate Professor, Professor of Economics and Economic Security Department, South Ural State University (National Research University)

OUR AUTHORS

E-mail: likholetov@yandex.ru

LOBANOV MAXIM ALEXANDROVICH

Teaching Assistant, Associate Professor, Production Machines and Equipment Department, Bashkir State University

E-mail: bgutmo@mail.ru, lobanov@bgutmo.ru

LOSCHILOVA MARINA ANDREEVNA

Senior Lecturer, Department of Economics and Automated Control Systems, Urga Technological Institute, National Research Tomsk Polytechnic University E-mail: marisha20@bk.ru

LYSENKO NIKOLAY VLADIMIROVICH

DSc (Engineering Sciences), Professor, Head of Television and Video Engineering Department, Saint Petersburg Electrotechnical University "LETI" E-mail: nvlysenko@etu.ru

MAKAROVA **IRINA VICTOROVNA**

DSc (Engineering Sciences), Professor, Transport Systems Service Department, Kazan Federal University - Naberezhnye Chelny Institute, Honorary Worker of Higher Professional Education of the RF E-mail: kamIVM@mail.ru

MALYSHEV VIKTOR NUKOLAEVICH

DSc (Engineering Sciences), Professor, Dean of Faculty of Radio Engineering, Saint Petersburg Electrotechnical University "LETI", Honorary Worker of Higher Professional Education of the RF

E-mail: VNMalyshev@etu.ru

MINGAZOVA **DILYARA NUROVNA**

Assistant Director of Additional Professional Education Institute, Kazan National Research Technological University E-mail: idpoknitu@mail.ru

MININA ANASTASIA ANDREEVNA

PhD (Engineering Sciences), Associate Professor, Deputy Senior Vice-Rector, Executive Secretary of Admission Committee, Saint Petersburg Electrotechnical University "LETI"

E-mail: aaminina@etu.ru

MIFTAKHUTDINOVA LILIYA TAGIROVNA

PhD (Philology), Associate Professor, Deputy Director of Additional Professional Education Institute, Director of Open (Distance) Learning Center, Kazan National Research Technological University

E-mail: nelufer@yandex.ru, miftakhutdinova@kstu.ru

MIKHEEVA SVETLANA ALEXANDROVNA

Director of Personnel Development Department, KAMAZ E-mail: miheeva@kamaz.ru

MYSHLYAVTSEV ALEXANDER VLADIMIROVICH

DSc (Engineering Sciences), Professor, Vice-Rector (Education), Omsk State Technical University E-mail: myshl@omgtu.ru

PAVLOV **VLADIMIR NIKOLAEVICH**

PhD (Engineering Sciences) Associate Professor, Vice-Rector for Scientific Affairs, Saint Petersburg Electrotechnical University "LETI" E-mail: pvn1955@etu.ru

PAVLOVA **IRINA VICTOROVNA**

PhD (Chemistry), Associate Professor, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University E-mail: ipavlova@list.ru

PEL'MENYEVA ANASTASIA ALEKSEEVNA

PhD (Economics), Associate Professor, Economics of Oil and Gas Industry Department, Gubkin Russian State University of Oil and Gas (National Research University)

E-mail: anastasia plmn@mail.ru

PETKAU **OLEG GERGARDOVICH**

PhD (Engineering Sciences), General Director of Scientific Research Institute Vektor, Government Award in Science and Technology of the RF E-mail: nii@nii-vektor.ru

OUR AUTHOR

ENGINEERING **EDUCATION** 20'2016





OUR AUTHORS

OUR AUTHOR

PODREZOVA POLINA ANDREEVNA

Master student, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University, project coordinator "WIN business decisions", Tomsk

E-mail: polinapodrezova@gmail.com

PONOMAREVA KSENIYA OLEGOVNA

Student, Department of Engineering Entrepreneurship, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University

E-mail: ponomareva.k.1995@yandex.ru

POKHOLKOV YURY PETROVICH

DSc (Engineering Sciences), Professor, Head of Management and Technology in Higher Professional Education Department, Institute of Humanities, SocialSciences and Technologies, National Research Tomsk Polytechnic University, President of the Association for Engineering Education of Russia, Government Award in Education, Honorary Worker of Science and Technology

E-mail: pyuori@mail.ru

PUZANKOV DMITRY VICTOROVICH

DSc (Engineering Sciences), Professor, Professor Emeritus of Saint Petersburg Electrotechnical University "LETI", Rector (1998-2009), Honorary Scientist of the RF

E-mail: dvpuzankov@mail.ru

PYATIBRATOV PETR VADIMOVICH

PhD (Engineering Sciences), Associate Professor, Department of Oil Field Development, Gubkin Russian State University of Oil and Gas (National Research University), RF Government Award in Science and Technology for Young Scientists, RF Government Award in Education

E-mail: pyatibratov.p@gmail.com

REDIN LEV VADIMOVICH

PhD (Engineering Sciences), Associate Professor, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University E-mail: levvr@mail.ru

REZNICHENKO MARIA GENNAD'EVNA

DSc (Pedagogy), Professor, Department of Social Systems and Law, Samara State University

E-mail: rezmary@mail.ru

SEMYENOV VICTOR PAVLOVICH

DSc (Economics), Professor, Head of Management and Quality Systems Department, Saint Petersburg Electrotechnical University "LETI" E-mail: vps@etu.ru

SIRAZITDINOVA YULIYA SHAMIL'EVNA

Deputy Director of RASA Center, Tomsk; Senior lecturer, Department of Engineering Entrepreneurship, Institute of Humanities, Social Sciences & Technologies, National Research Tomsk Polytechnic University E-mail: sirazitdinova@tpu.ru

STARSHINOVA TATYANA ALEXANDROVNA

PhD (Pedagogy), Associate Professor, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University

E-mail: tstar@any.com

STYCHKOVA VERONIKA IGOREVNA

Senior Lecturer, Department of Foreign Languages and Russian as Secondary Language, Samara State University E-mail: veronika_stychkova@mail.ru

TARAKANOV **ALEXANDER YUR'EVICH**

Head of Research and Specialist Training Center, Scientific Research Institute Vektor

E-mail: atarakanov@list.ru

TARASOVA

EKATERINA NIKOLAEVNA PhD (Pedagogy), Associate Professor, Urga Technological Institute, National

Research Tomsk Polytechnic University E-mail: artemm2005@va.ru

TIMOFEEV **OLEG NIKOLAEVICH**

PhD (Engineering Sciences), Associate Professor, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University E-mail: Timofeev ON@mail.ru

TOLKACHEVA KSENIA KONSTANTINOVNA

Specialist, Department of Management and Technology in Higher Professional Education. Institute of Humanities. Social Sciences and Technologies, National Research Tomsk Polytechnic University, Manager, Russian Association of Engineering Education (AEER) e-mail: tolkacheva@tpu.ru

USHENIN **ALEXANDER MIKHAILOVICH**

Chief Human Resources and Development Officer, KAMAZ E-mail: ushenin@kamaz.org

KHABIBULLIN RIFAT GABDULKHANOVICH

DSc (Engineering Sciences), Professor, Head of Transport Systems Service Department, Kazan Federal University - Naberezhnye Chelny Institute, Honorary Worker of Higher Professional Education of the RF

E-mail: hrg kampi@mail.ru

KHATSRINOVA OLGA YUR'EVNA

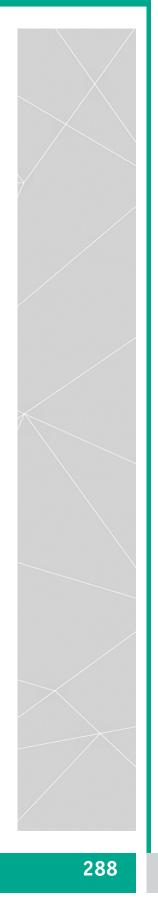
PhD (Engineering Sciences), Associate Professor, Engineering Pedagogy and Psychology Department, Kazan National Research Technological University E-mail: khatsrinovao@mail.ru

KHOKHLOVA MARIA SERGEEVNA

PhD (Geology and Mineralogy), Associate Professor, Department of Geophysical Information Systems, Gubkin Russian State University of Oil and Gas (National Research University), RF Government Award in Science and Technology for Young Scientists E-mail: khokhlova.ms@gubkin.ru

ENGINEERING **EDUCATION** 20'2016





TSEKHANOVSKY VLADISLAV VLADIMIROVICH

PhD (Engineering Sciences), Associate Professor, Head of Information Systems Department, Saint Petersburg Electrotechnical University, Honorary Worker of Higher Professional Education of the RF

E-mail: chr12@yandex.ru

SHAGEEVA FARIDA TAGIROVNA

DSc (Pedagogy), Associate Professor, Dean of Additional Professional Education Institute, Professor of Engineering Pedagogy and Psychology Department, Kazan National Research Technological Universitvдоктор, Honorarv Worker of Higher Professional Education of the RF

E-mail: faridash@bk.ru

SHALAY VICTOR VLADIMIROVICH

DSc (Engineering Sciences), Professor, President of Omsk State Technical University, Honorary Worker of Higher Education of the RF

E-mail: shalay@omgtu.ru

SHALYMOV ROMAN VADIMOVICH

PhD (Engineering Sciences), Deputy Dean for Enrollment and Occupational Guidance, Faculty of Information Measurement and Biotechnical Systems, Saint Petersburg Electrotechnical University "LETI"

E-mail: rvshalymov@etu.ru

SHAPOSHNIKOV SERGEY OLEGOVICH

PhD (Engineering Sciences), Associate Professor, Executive Director of Information Expertise Center in Engineering Education Development, Saint Petersburg Electrotechnical University "LETI". Honorary Worker of Higher Education of the RF

OUR AUTHORS

E-mail: soshaposhnikov@gmail.com

SHATROVA ANASTASIA SERGEEVNA

Post-graduate student, Department of Mineral Processing and Environmental Protection, Irkutsk National Research Technical University

E-mail: unicorn1990@rambler.ru

SHVETSOV VLADIMIR IVANOVICH

DSc (Engineering Sciences), Professor, Department of Mathematical Support and Supercomputer Technologies, Institute of Information Technology, Mathematics and Mechanics, Lobachevsky State University of Nizhni Novgorod (UNN), Government Award in Education of the RF

E-mail: shvetsov@unn.ru

SHEVCHENKO MAIYA EVGEN'EVNA

PhD (Engineering Sciences), Associate Professor, Saint Petersburg Electrotechnical University "LETI" E-mail: m e shevchenko@mail.ru

SHEINBAUM VICTOR SOLOMONOVICH

OUR AUTHOR

PhD (Engineering Sciences), Associate Professor, Rector Advisor, Professor of Department of Machines and Equipment for Oil and Gas Industry, Gubkin Russian State University of Oil and Gas (National Research University), RF Government Award in Education, Honorary Worker of Higher Education, Honorary Worker of the Ministry of Fuel and Energy, Honorary Worker of Higher Professional Education of the RF, Honorary Petroleum Engineer, Honorary Worker of Petroleum Industry

E-mail: shvs@gubkin.ru

SHMAKOV BORIS VASIL'EVICH

PhD (Economics), Associate Professor, Department of Entrepreneurship and management, South Ural State University (National Research University) E-mail: shboris17a@mail.ru

SHTRIPLING LEV OTTOVICH

E-mail: los@omgtu.ru

DSc (Engineering Sciences), Professor, Vice-Rector for Academic Affairs, Omsk State Technical University, Honorary Worker of Higher Education of the RF

ENGINEERING **EDUCATION** 20'2016

