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Table of Contents

Fish passages in small stream management	4
<i>Vojislav Djekovic, Ljubomir Letic, Grozdana Gajic, Aleksandar Andjelkovic, Milorad Janic, Dragomir Grujovic, Nedjo Milosevic</i>	
Possible implementation of Free Route Airspace in Croatia.....	13
<i>Tomislav Mihetec, Denis Odic, Zoran Jaksic</i>	
Structural degradation of the bulk-carriers caused by the corrosion.....	21
<i>Spiro Ivosevic, Sanja Bauk, Danilo Nikolic</i>	
Sustainable technology for existing buildings renovation in the function of energy efficiency.....	31
<i>Hranislav Milosevic, Dragana Vasilski, Svetlana Stevovic</i>	
Numerical 3D model of the foundation grid with RC sceletal structure of objects exposed to the effects of underground mining.....	39
<i>Zahid Basic, Nedim Suljic, Anadel Galamic</i>	
Mathematical model of procedures optimization technical diagnostic for determinate the worn out of hydro plant's bearings.....	44
<i>Dragan Nikolic, Nenad Janjic, Zoran Janjic, Ljubisa Josimovic, Suzana Obradovic</i>	
Compatibility of values of plane strain fracture toughness, K_{Ic}, crack growth and impact energy parameter for welded joints behaviour evaluation in presence of cracks.....	50
<i>Ivica Camagic, Nemanja Vasic, Zijah Burzic, Srdjan Jovic, Tamara Gvozdenovic, Dzafer Kudumovic</i>	
Managing pixel deformation with pseudo-random values in infrared security graphics	59
<i>Nikolina Stanic Loknar, Ivana Ziljak Stanimirovic, Tajana Koren</i>	
Suitability evaluation of various recycled paper grades for the production of health safe food packaging	70
<i>Sonja Jamnicki, Lidija Barusic, Branka Lajic</i>	
Comparative analysis of pixel-based and object-oriented classification by using multi-spectral spot 5 images	78
<i>Miodrag Regodic, Dragoljub Sekulovic, Goran Cirovic, Vladan Tadic, Sinisa Drobnjak</i>	
Contribution to european initiatives for battle teams integrations based on initial technology capabilities	88
<i>Momcilo Milinovic, Zoran Jeftic, Bozidar Forca, Tanja Miscevic, Olivera Jeremic</i>	

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Table of Contents

The basic principles for improving occupational health and safety information systems and knowledge management.....	100	Developing the supervisor's authentic leadership measure.....	229
<i>Josip Taradi, Vesna Nikolic</i>		<i>Miha Maric, Vlado Dimovski, Maja Djurica, Matej Cerne, Nina Djurica</i>	
Modelling of claim counts as a base for premium system determination.....	112	Multiple-role agent based distributed computing.....	238
<i>Ivana Simeunovic, Ivana Domazet, Hasan Hanic</i>		<i>Liguo Yu, Alok Mishra</i>	
Structural analysis of international trade of the Danube region countries	120	Business intelligence and the concept of chain of values in the insurance	244
<i>Svetlana Ignjatijevic, Maja Djokic, Maja Ciric, Bojana Kovacevic</i>		<i>Vesna Aleksic Maric, Dragana Basic</i>	
New trends in water infrastructure education: PROWAT project case study	129	Exploration of old maps of Novi Pazar.....	256
<i>Selcuk Toprak, A. Cem Koc, Richard Pilcher, Izzet Kara, Elmo De Angelis, Fatih Dikbas, Kylene De Angelis, Mahmut Firat, Ulker Guner Bacanli, Altan Dizdar</i>		<i>Milos M. Radovanovic</i>	
Fine arts subjects at computer graphics studies at the Faculty of technical sciences in Novi Sad	143	Project modernization and reform of education system through the new methods of learning	260
<i>Ratko Obradovic, Milos Vujanovic, Branislav Popkonstantinovic, Predrag Sidjanin, Branislav Beljin, Igor Kekeljevic</i>		<i>Milica Nicic, Evica Petrovic, Sefedin Sehovic, Edib Hajrovic</i>	
EQMx12 model of excellence for is improvement - On the examples of higher education institutions.....	148	Ecological agricultural characteristics of the countries in transition - Territory of Serbia as development potential for ecological agriculture	264
<i>Slobodan Petrovic, Zivadin Micic, Marija Blagojevic, Nebojsa Stankovic</i>		<i>B. M. Mihajlovic, M. A. Pavlovic, Lj. M. Lazarevic</i>	
Knowledge management at Croatian polytechnics – Assessment of the knowledge transfer process	158	Environmental reporting	271
<i>Goran Kozina, Damira Kecek, Gordana Dukic</i>		<i>Goranka Knezevic, Marija Kostic, Vule Mizdrakovic, Nada Arezina, Sofija Vukicevic, Vladimir Dzamic</i>	
A conceptual integrated ICT - based leadership learning and training architecture.....	169	Technology Assisted Approach for Learning, Visualizing and Problem-Solving In Engineering	277
<i>Evelin Vatovec Krmac, Zoran Cekerevac, Slobodan T. Ristic</i>		<i>Manjit Singh Sidhu</i>	
Problems and experiences with student projects based on real-world problems: a case study	176	Implementation of some algorithms in computer graphics in Java.....	293
<i>Kresimir Fertalj, Boris Milasinovic, Ivana Nizetic Kosovic</i>		<i>Muzafer Saracevic, Predrag Stanimirovic, Sead Masovic, Faruk Selimovic</i>	
Competitiveness of higher education: A cross - national perspective	187	Effectiveness of stations for technical inspection of vehicles and traffic impact on environment.....	301
<i>Jozsef Kabok, Tibor Kis, Goran Andjelic, Vladimir Djakovic</i>		<i>Fuad Klisura, Sefket Goletic, Bruno Bojic, Aleksandra Nikolic</i>	
Terrorist activities and internet government with focus on importance of prevention within a family	195	Possibilities for the six sigma concept implementation in small enterprises	309
<i>Zaklina Spalevic, Milan Pocuca, Zeljko Bjelajac</i>		<i>Marija Andjelkovic Pesic, Nada Barac, Sonja Jovanovic, Biljana Djordjevic, Snezana Djekic, Gorica Boskovic</i>	
„Empirical investigation into e-learning additional benefits: student perspective“.....	204	Striving for precision in Serbian management terminology	315
<i>Amila Pilav-Velic, Armin Talic</i>		<i>Gordana Jakic, Jovan Filipovic</i>	
Credit rating evaluation in the example of construction industry.....	212	Analytical model of the pressure variation in the gerotor pump chambers.....	323
<i>Jasmina Cetkovic, Snezana Rutesic, Milos Knezevic</i>		<i>Lozica Ivanovic, Danica Josifovic, Andreja Ilic, Blaza Stojanovic</i>	
The application of a five-regime model in adaptive traffic control	222	The Paris peace conference after world war I	332
<i>Milan Simeunovic, Milja Lekovic, Vuk Bogdanovic, Zoran Papic, Pavle Pitka</i>		<i>Zoran Jerotijevic, Srdjan Djordjevic, Milan Palevic, Dragan Bataveljic</i>	
		Engineering profession in society in transition	342
		<i>Smiljana Mirkov, Marija Runic Ristic</i>	
		Analysis of the amount of communal waste	350
		<i>Zoran Janjus, Aleksandar Petrovic, Aleksandar Jovovic, Predrag Ilic, Slobodanka Pavlovic</i>	

Table of Contents

Key factors influencing the success of knowledge management.....	355
<i>Jelena Djordjevic-Boljanovic, Branislav Masic, Gordana Dobrijevic</i>	
Profitability of the investment project of introducing modern business information systems	367
<i>Nebojsa Denic, Boban Dasic, Jelena Maslovara</i>	
The balanced scorecard vs. Total quality management	373
<i>Stevo Janosevic, Vladimir Dzenopoljac</i>	
Digitized urban luminous ambiences	384
<i>Tomaz Novljan</i>	
Correlation of water quality criteria of water of the Danube in Serbia	390
<i>Ivana Mladenovic-Ranisavljevic, Ljiljana Takic, Zvonko Damjanovic, Milovan Vukovic, Nenad Zivkovic</i>	
Stabilization and solidification of lead and Zinc ore processing waste deposit by using Magnesium slag.....	395
<i>Jelena Djokic, Dusko Minic, Zeljko Kamberovic, Gordana Milentijevic, Vladimir Malbasic</i>	
Cartographic method and validity of computer aided cartographic generalization of river flows.....	404
<i>Ivan M. Filipovic, Aleksandar Valjarevic, Milan Djordjevic, Mila Pavlovic, Aleksandar Radivojevic, Marija Bratic, Ljiljana Dimitrijevic</i>	
Critical evaluation of elite sport system in a transition country	412
<i>Izet Radjo, Mile Sadzak, Patrik Drid, Dejana Sadzak</i>	
Integrated treatment of waste water and solid mining waste	423
<i>Mile Bugarin, Radojka Jonovic, Ljiljana Avramovic, Milenko Ljubojev, Zoran Stevanovic, Vladan Marinkovic</i>	
Measuresto improve the energy performance of buildings in Slovenia.....	430
<i>Martina Zbasnik-Senegacnik, Manja Kitek Kuzman</i>	
Customer knowledge management business model	441
<i>Maria Th. Semmelrock-Picej</i>	
A comperative study of model-based framework for the AEC competency evaluation ofbuilding tenders	449
<i>Tomaz Slak, Tomo Cerovsek, Tadeja Zupancic, Vojko Kilar</i>	
xA comparative analysis of priority rules for different job shop scheduling problem classes.....	464
<i>Mustafa Batuhan Ayhan, Serol Bulkan</i>	
Instructions for the authors	476

EQMx12 model of excellence for is improvement - On the examples of higher education institutions

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Abstract

This paper presents a model of excellence EFQMx12 as a new approach for the development of the information system (IS) in order to achieve the sustainable business excellence of the organization. The new model has been applied to develop and improve the IS of higher education (HE) institution, in the PDCA spiral of quality, on the sample of HE institutions in Serbia and by evaluating individual elements (of 144 elements) of the model, especially on the examples of sub-system IS of the Student service (ISSS).

Key words: EFQMx12 model, IS improvement, higher education, PDCA

1. Introduction

The European Foundation for Quality Management, known as EFQM, is the owner of the EFQM model of excellence, a business model that helps organizations (over 30 000) around the world in pursuit of achieving sustainable excellence [1].

The research has been presented structurally and meaningfully through resultant 12 points of this paper which include 12x12 aspects of adjusted EFQMx12 model of excellence. The work presents such a new approach: the development and application of the EFQMx12 model of excellence for improvement of the information system. At the same time, modified EFQM in EFQMx12 model of excellence is the basis for improvement of the system, process and product with the application of TQM (Total Quality Management) on the examples of higher education institutions. Model EFQMx12 has been applied at the University in Kragujevac (Serbia), and 47 of the 65 high school of professional studies in Serbia (September 2011) have been investigated.

1.1 Aim of the paper

The aim of the paper is modeling, development and continuous improvement of higher education software system, with higher future objectives to integrate adaptive E-learning from the IS universities. For originally implemented goal, the development of IS higher education system, was used the EFQMx12 Excellence Model, with “innovation” of widespread EFQM model in the EU, applicable for the improvement and quality management of the company [2]. The premise (hypothesis) of the paper is that the EFQMx12 Excellence model of excellence can be applied in the IS development to determine the weakest (critical) elements 1-12, on the way to excellence. The hypothesis is proven by implementation of the subsystem IS in the HE institution (with a focus on IS Student services – ISSS), closes to the student – user of education services.

2. Review of the literature

Information system (IS) is defined in the standardized way as a system for information, processing, which together with belonging organizational resources, provides and distributes information [3] – the information relevant to decision making and solving business problems. In many papers (for example [4], [5], [6], the application of the EFQM Excellence Model in HE institutions has been shown as a model for improving the quality of the institution work. There are numerous papers describing the development of IS higher education institution (for example, [7]). However, there have not been papers so far stating that the EFQM Excellence Model is used as a model for the IS development, although the literature gives the connection between the EFQM Excellence Model and the process for improvement of the system in school institutions [5]. The paper [8] demonstrated the existence of a significant links between

