











Empirical Approaches

Local, Regional and **Giobal Quality of Life**

Sustainable Development and Quality of Life

Freedom and **Cuality of Life**

Quality and Quality of Life

Impact of development science and technology on quality of life

Methodology of Quality of Life and Happiness

Management of sustainable development

Current Issues

Derspectives of Cuality of Life









ISBN 978 - 86 - 6335 - 033 - 5 **Quality Conference**

1st International conference on Quality of Life



1. International Conference on Quality of Life



June 09th-10th - 2016, Kragujevac Faculty of Engineering, University of Kragujevac

1st International conference on Quality of Life

1. International Conference on Quality of Life **Conference manual**

ISBN: 978 - 86 - 6335 - 033 - 5

ife

Dr Slavko Arsovski, full professor Faculty of Engineering, Kragujevac Dr Danijela Tadić, full professor Faculty of Engineering, Kragujevac Dr Miladin Stefanović, full professor Faculty of Engineering, Kragujevac
Dr Aleksandar Aleksić Faculty of Engineering, Kragujevac
FACULTY OF ENGINEERING 34000 KRAGUJEVAC Sestre Janjić 6
CENTER FOR QUALITY 34000 KRAGUJEVAC Sestre Janjić 6
Prof. dr Miroslav Živković Prof. dr Slavko Arsovski
200
Faculty of Engineering, Kragujevac

Copyright © Faculty of Engineering, University of Kragujevac, 2016. Copyright © Center for Quality, Kragujevac, 2016.

Publication of Conference manual and organization of 1. International Conference on Quality of Life is supported by: Department of Education, Science and Technological Development of Republic of Serbia

> Izdavanje Zbornika radova, organizovanje i održavanje 1. International Conference on Quality of Life podržalo je: *Ministarstvo prosvete, nauke i tehnološkog razvoja Republike Srbije*

Publication of Conference manual and organization of 1. International Conference on Quality of Life is supported by *The city of Kragujevac*

1st International conference on Quality of Life June 2016

1st International Conference on Quality of Life Programme Committee

- 1. Prof. dr Slavko Arsovski, Faculty of engineering, University of Kragujevac, Kragujevac, president
- 2. Prof. dr Tadeusz Sikora, The Department of Quality Management, Cracow University of Economics, Kraków, Poland
- 3. Prof. dr Ezendu Ariwa, London Metropolitan Business School, London Metropolitan University, London, UK
- 4. Prof. dr Tadeja Jere Lazanski, University of Primorska, Koper, Slovenia
- 5. Prof. dr Mirko Soković, Faculty Of Mechanical Engineering, University of Ljubljana, Ljubljana, Slovenia
- 6. Prof. dr Milan Perović, Faculty Of Mechanical Engineering, University of Montenegro, Podgorica, Montenegro
- 7. Prof. dr Zdravko Krivokapić, Faculty Of Mechanical Engineering, University of Montenegro, Podgorica, Montenegro
- 8. Prof. dr Goran Putnik, University of Minho, Braga, Portugal
- 9. Assoc. Prof. dr Martí Casadesús, Universitat de Girona, Girona, Spain
- 10. Assoc. Prof. dr Iñaki Heras, Universidad del País Vasco, San Sebastian, Spain
- 11. Prof. dr Stanislav Karapetrović, University of Alberta, Edmonton, Canada
- 12. Prof. dr Miroslav Badida, Technical University of Košice, Faculty of Mechanical Engineering, Department of Environmental, Studies and Information Engineering, Košice, Slovakia
- 13. Prof. dr Danijela Tadić, Faculty of engineering, University of Kragujevac, Kragujevac, Serbia
- 14. Prof. dr Jovan Filipović, Faculty of organizational sciences, Belgrade, Serbia
- 15. Prof. dr Zora Arsovski, Faculty of economics, University of Kragujevac, Kragujevac, Serbia
- 16. Assoc. Prof. dr Gordana Nikolić, University of Rijeka, Rijeka, Croatia
- 17. Prof. dr Miladin Stefanović, Faculty of engineering, University of Kragujevac, Kragujevac, Serbia
- 18. Dr Prasun Das, SQC & OR Division of the Indian Statistical Institute (ISI), Kolkata, India
- 19. Prof. dr. Ayşegül Akdogan Eker, Yıldız Technical, University Mechanical Faculty, Beşiktaş/İstanbul-Turkey
- 20. Prof. dr Bülent Eker, Namık Kemal University, Tekirdağ-Turkey
- 21. Prof. dr Georgeta Rață, U.S.A.M.V.B. Timișoara, România
- 22. Paul M. Andre, AQE Group, Chicago, Illinois, USA
- 23. Prof. dr Nenad Injac, Quality Austria, Wien, Austria
- 24. Prof. dr Krešimir Buntak, University North, Koprivnica, Croatia
- 25. Prof. dr Petroman Ioan, Faculty of Agricultural Management, U.S.A.M.V.B. Timişoara, România

1st International conference on Quality of Life

CONTENT:

ife

uality

1.	Slavko Arsovski TRANSITION OF CONTEMPRORARY PARADIGM
	FROM QUALITY TO QUALITY OF LIFE1
2.	Tadeja Jere Jakulin SYSTEMS THINKING FOR CO-CREATIVE SOCIETY
3.	Nenad Injac, Miladin Stefanovic VIENNA THE CITY WITH SEVEN STRAIGHT TITLES OF
	THE CITY WITH THE HIGHEST LEVEL OF QUALITY
	OF LIFE IN THE WORLD – REVIEW17
4.	Danijela Tadić, Aleksandar Aleksić, Marija Zahar Đorđević, Milena Miladinović THE STATISTICAL APPROACH IN DETERMINING INFLUENCE
	OF ECONOMIC FACTORS ON THE LEVEL OF OUALITY OF LIFE 23
5	Svetomir Simonović
5.	ON NANOPATRICLE BASED DEVICES FOR DISEASES
	TREATMENT AND DIAGNOSTIC
6.	Aleksandar Đorđević, Danijela Tadić, Aleksandar Aleksić, Miladin Stefanović, Snežana Nestić NEW MODEL FOR SUBJECTIVE HAPINESSES DETERMINATION
	BASED ON THE FUZZY SETS TEHORY AND STATISTIC 37
7.	Oliver Momčilović, Gordana Nikolić, Tijana Cvetić SYSTEM MODEL OF HAPPINESS
8.	Suzana Borić, Slavko Arsovski, Danijela Tadić, Aleksandar Đorđević A NEW STATISTICAL APPROACH IN DETERMINING
	THE LEVEL OF HAPPINESS WITH RESPECT
	TO ECONOMIC FACTORS
9.	Danijela Tadić, Hrvoje Puškarić, Suzana Borić, Snežana Nestić A NEW FUZZY MODEL FOR DETERMINING HAPPINESS LEVEL
10.	Daniela Stanojlovic, Tea Spasojevic-Santic AN ANALYTICAL REVIEW OF
11.	STATISTICAL METHODS IN MEASUREMENT OF HAPPINESS
	OF ENTERPRISES
12.	Boris Agarski, Djordje Vukelic, Milana Ilic Micunovic, Katica Simunovic, Igor Budak
	OPTIMAL PRODUCT SELECTION BASED ON
	PRODUCT'S QUALITY AND ENVIRONMENTAL PROPERTIES

1st International conference on Quality of Life June 2016

Aleksandar Đorđević¹⁾ Danijela Tadić¹⁾ Aleksandar Aleksić¹⁾ Miladin Stefanović¹⁾ Snežana Nestić¹⁾

1) Faculty of Engineering, University of Kragujevac, Serbia{adjordjevic, galovic, aaleksic, miladin,s.nestic}@kg.ac.rs

NEW MODEL FOR SUBJECTIVE HAPINESSES DETERMINATION BASED ON THE FUZZY SETS TEHORY AND STATISTIC

Abstract: In this paper, model for determination of variables of priorites which have influence on subjective hapinesses is proposed. The fuzzy comparison pair-wise matrix of the relative importance of variables is constructed. According to calculated correlation coefficients slassification variables influencing the level of subjective happiness are determined. By applying method, the priority of the slassification variables is obtaines. The proposed algorithm is illustrated by example with real life data.

Keywords: subjective hapinesses, *FAHP*, correlation coefficients, *ABC* classification

1. INTRODUCTION

In the literature, large number of papers, which are defined on the basis of questionnaires that may be used to determine the degree of subjective happiness, may be found [1,2].

In (Kashadan, 2004) [1] were defined variables that affect the happiness of the individual. Linely et al (2009) [2] suggest that individual satisfaction and psychological satisfaction are the two parameters that affect the level of subjective happiness. These components are hierarchicaly structured. By applying factor analysis the degree of influence is determined for each variable to the overall happiness of the individual. Thus, for example the greatest impacts on individual satisfaction have negative emotions (0.82), and on psychological satisfaction a continuous development of the individual has the greatest impact (0.84). It should be noted that the individual satisfaction and psychological satisfaction are two independent factors by assumption. By applying techniques of factor analysis it is obtained that there is a high degree of dependence between thiss two factors. On the tested samples its value is 0.76.

In this paper, it is assumed that the level subjetivne happiness can be determined by using questionnaire as defined in [1].

For the degrees of agreement or disagreement with the offered statements within the experiment, each participant can express its opinion by using the terms defined with scale measures (1-6).

Research goal can be defined as precisely determining the value of subjective happiness and determining the partial correlation coefficient of each considered variables and values of subjective happiness. It is believed that all the defined variables do not have the same relative importance for discussed problem. Weight is variable determined by using FAHP [3].

The value of subjective happiness is determined as the mean value-weighted normalized values variables. Correlation coefficients of variables and the value of subjective happiness are determined by application of IBM SPSS software. Priorities of management initiatives to be taken by personal managers, in order to increase the level of subjective happiness, corresponds to the values of correlations coefficients. In other words, the priority of management initiative is determined in an exact manner, which allows achieving the desired result with less effort and resources.

The paper is organized as follows: an literature overview is given in the section 2. The methodologies used in the work are given in the third section. In Section 4 is presented proposed algorithm of the research. In Section 5 an example is given which illustrates the developed method. In the case of using data obtained from advance of a particular sample. The conclusions are shown in Section 6.

CIP - Каталогизација у публикацији -Народна библиотека Србије, Београд

316.728(082)(0.034.2) 006.015.5(082)(0.034.2)

INTERNATIONAL Conference on Quality of Life (2016; Kragujevac) Conference Manual [Elektronski izvor] / 1. International Conference on Quality of Life, June 09th-10th - 2016, Kragujevac; [editors Slavko Arsovski, Danijela Tadić, Miladin Stefanović]. - Kragujevac : Faculty of Engineering, Center for Quality, 2016 (Kragujevac : Interprint). - 1 elektronski optički disk (CD-ROM) : tekst, slika; 12 cm

Tiraž 200. - Napomene i bibliografske reference uz tekst. - Bibliografija uz svaki rad.

ISBN 978-86-6335-033-5

a) Квалитет живота - Зборници b) Квалитет - Зборници COBISS.SR-ID 223841036