

ISBN:978-84-115-5586-9

BOOK OF ABSTRACTS

IEAS-19

**3rd International Engineering, Mathematics,
& Applied Sciences Conference
December 21-22, 2019**

Organizaed by



**ACADEMIC RESEARCH AND SOLUTIONS
SOCIEDAD LIMITADA**

TABLE OF CONTENTS

Scientific Committee	vi
Organizing Committee	vii
Conference Schedule	x
List of Conference Attendees	xiv
TRACK A: ENGINEERING & APPLIED SCIENCES	16
Effects of dolphin-assisted therapies on brain cortex in children with Spastic Cerebral Palsy	17
Fractal characterization of brain cortex activity in children with Spastic Cerebral Palsy and Autism Spectrum Disorder in dolphin-assisted therapies	18
Adopting the Hadoop Architecture to Process Satellite Pollution Big Data	20
TRACK B: SOCIAL SCIENCES & BUSINESS MANAGEMENT	21
Revisiting the Relationship between Economic Development and Social Justice: Evaluating the Progress of the Sustainable Development Strategy in Egypt	22
LOCAL POLICY NETWORK FOR LOCAL DEVELOPMENT Encouraging the Strength of Network in Local Tourism Development in Indonesia	23
COMMUNITY BASED-ORGANIZATION: Can It Empower People? Implementation Network of the Food Diversification Policy In Indonesia	24

Population as a National Power: Censuses of the Early Republican Period of Turkey

25

Book of Abstracts of the 3rd International Engineering, Mathematics & Applied Sciences Conference

IEAS-19

Edited by

Prof. Dr. Perez M.

These abstracts are provided for all presenters who have submitted papers and have registered for the conference. Although every effort has been made to ensure accurate replication of these abstracts, the conference organizers cannot be held accountable for inaccuracies that may have occurred in their reproduction. Any changes made after the conference to either the content of the abstracts or presentation status will not be included in these proceedings. Thank you.

Contact Information:

Address: Avd Maresme 124, 3/8 Badalona, 08918, Barcelona-Spain

Website: <http://acrsolutions.org>

Email Address: support@acrsolutions.org



Scientific Committee

Scientific Committee Member	Affiliation
Assoc. Professor Corneliu Burlacu	Technical University “Gh. Asachi” Iasi, Romania
Dr. Nataša Lucić	University of Osijek, Croatia
Professor Gabriela Carja	Technical University Gheorghe, Romania
Dr. Mohd Norfian Alifiah	Universiti Teknologi, Malaysia
Asst. Prof. Dr. Suraj Kumar Singh	Suresh Gyan Vihar University, Jaipur, India
Asst. Prof. Dr. Shruti Kanga	Suresh Gyan Vihar University, Jaipur, India
Prof. Dr. Salem Omar	Heinrich Heine University of Duesseldorf, Germany
Asst. Prof. Dr. Tamara Floricic	Juraj Dobrila University of Pula, Croatia
Assoc. Prof. Dr. Neha Sharma	Rama University, India
Asst. Prof. Mohammad Aman Ullah	International Islamic University Chittagong, Bangladesh
Asst. Prof. Nurul Mohammad Zayed	Daffodil International University, Bangladesh
Prof. Dimitris Drikakis	University of Strathclyde, UK
Dr Dragana Bozic Lenard	Computer Science and Information Technology Osijek, Croatia
Prof. Dr. Constantin Anechitoae	University of Constanta, Romania
Assoc. Prof. Dr. Mokhtar Ben Henda	Université Bordeaux Montaigne, France

Organizing Committee

Organizing Committee Member	Affiliation
Dr. Pérez M.	Conference Secretary
Mr. V.J. Pasola	Contact Person & Organizer
Mr. Juan García	Program Coordinator
Dr. T.I.K	Conference Secretary

Welcome to Academic Research and Solutions Sociedad Limitada (ARS)

ARS provides an ideal academic platform for researchers to present the latest research findings and describe emerging technologies, and directions in Social Sciences, Business Management, Engineering and Natural Science issues. The conference seeks to contribute to presenting novel research results in all aspects of Social Sciences and Engineering. The conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of Engineering, Social and Applied Sciences. It also provides the premier interdisciplinary forum for scientists, engineers, and practitioners to present their latest research results, ideas, developments, and applications in all related areas. The conference will bring together leading academic scientists, researchers and scholars in the domain of interest from around the world. Our oncoming events of the successful conference series focusing on Engineering and Social Sciences. Hence, the scientific program focuses on current advances in the research, production and use with particular focus on their role in maintaining academic level in Engineering, Social & Applied Sciences and elevating the science level. The conference's goals are to provide a scientific forum for all international prestige scholars around the world and enable the interactive exchange of state-of-the-art knowledge. The conference will focus on evidence-based benefits proven in clinical trials and scientific experiments.

Best Regards,
Chairman of Conference
Prof. Dr. T.I.K.



IEAS-19

Venue: Salles Hotel Pere IV

PROGRAM SCHEDULE



Conference Schedule

DAY 01 Saturday (December 21, 2019)

Venue: Sallès Hotel Pere IV

09:00 am - 09:30 am	Welcome Reception & Registration
09:30 am - 09:40 am	Welcome Remarks - Dr. Perez M. - Conference Coordinator
09:40 am - 09:50 am	Introduction of Participants
09:50 am – 10:00 am	Group Photo Session
10:00 am – 10:30 am	Grand Networking Session and Tea Break

DAY 01 Saturday (December 21, 2019)

Session 001 (10:30 am - 12:30 pm)

Tracks: Engineering, Technology & Applied Sciences

Point of Discussion	Presenter
On Derivations of Finite Dimensional Dendriform Algebras	Dr. Yousuf Alkhezi
Solution for Sawada–Kotera Equation using Backhand Transformations and Traveling Wave Solutions	Prof. Gharib Mousa Ibrahim Gharib
Nonlinear Evolution Equations and Inverse Scattering	Naser Zomot

Session 001 (10:30 am - 12:30 pm)

Tracks: Business Management, Social Sciences& Humanities

Point of Discussion	Presenter
Educational Activities for Disabled Adults	Dr. Fatma KOCATURK
A Study on Awareness for Working of Nepalese People and Their Economic Activities	Yuya Okubo
Livelihood-Based Environmental Education for Environmental Conservation in Nepal -Focus on Gender Perspectives-	Manita Shrestha
A Field Study on Awareness of Nepali People and Their World Heritage	Chikayo SHIMAZAKI
Approach to Education for Sustainable Society through a School Activity in Nepal	Nahiro Suzuki

Lunch Break (12:30pm - 01:30pm)



Session 2 (01:30 pm – 02:45 pm)

Tracks: Business Management, Social Sciences& Humanities

Point of Discussion	Presenter
The Study on Factors Influencing Empowerment of Nepalese Women	Mio Imai
Students' Perception of the Curricular Design of the Subject Educational Models of the Master's Degree in Education	Marisol Esperanza Cipagauta Moyano
Student's Mobility as a Knowledge Management Indicator in Business Sciences	Marisol Esperanza Cipagauta Moyano
The Use of Frontier Models in Predicting and Explaining Bank Distress: An Emerging Market Application	Osman Kilic, Ph.D., Ihsan Isik
Impact of Augmented Reality on the Society: Pro and Con	Gbenga T. Omoniyi

(02:45 pm – 03:00 pm)

Closing Ceremony

List of Conference Attendees

The following scholars/ practitioners/educationists who don't have any paper presentation, however they will attend the conference as delegates & observers.

Sr. No	Official ID	Name	Affiliation Details
1	BAR-3129-102MA	Hua Luo, MD, PhD	Staff psychiatrist, Eskenazi Health, Indiana, USA

DAY 02 Sunday (December 22, 2019)

All respective guests are free to conduct their own sightseeing and tour. The second day of the event is reserved for this memorable purpose.

TRACK A: ENGINEERING & APPLIED SCIENCES

On Derivations of Finite Dimensional Dendriform algebras

Yousuf A. Alkhezi^{*1}, M. A. Fiidow²

Abstract In this paper deals with the low-dimensional cases of dendriform algebras derivations. We give an algorithm to find the derivation algebras. Then the algorithm is applied to find the basic derivations of dendriform algebras. The characteristically nilpotency of dendriform algebras has also been studied. The results are given in the form of tables.

Keywords: Derivations.

Acknowledgment: The authors would like to thanks Kuwait Foundation for the Advancement of Sciences (KFAS) for the generous support.

^{1,2}Public Authority for Applied Education and Training, College of Basic Education, Mathematics Department, Kuwait

^{*}Email:ya.alkhezi@paaet.edu.kw

Solution for Sawada–Kotera equation using Backhand Transformations and Travelling Wave Solutions

Prof. Gharib Mousa Ibrahim Gharib*

Abstract Nonlinear phenomena are very important in a variety of scientific fields. Finding solutions of nonlinear partial differential equations is one of the most difficult problems in mathematics and physics. For some nonlinear evolution equations which describe pseudo-spherical surfaces two new exact solution classes are generated. The main purpose of the paper to find Backland transformations and Travelling wave Solutions for nonlinear Sawada–Kotera equation, exact travelling wave solution and solitary wave solutions for a Sawada–Kotera equation is investigated in this paper. Are obtained by using an improved methods. Backland transformations to these solutions and generate new soliton solution classes. We introduce some open problems that appeared in our study of Backland transformations to nonlinear evolution equations which describe pseudo spherical surfaces. How can we find the functions f_{ij} which defined in equations describe pseudo spherical surfaces definition, and How to find exact solution of NLEE for simple non constant and travelling

Keywords: Nonlinear Evolution Equations; Backland Transformations; Pseudo-Spherical Surfaces.

*Zarqa University, Jordan

*Email: ggharib@zu.edu.jo

Nonlinear Evolution Equations and Inverse Scattering

Naser Zomot*

Abstract The main original contribution of this work is the development of the inverse scattering transform (IST) method for nonlinear evolution equations. The equation we solve is general form of KdV equation, which is known to be fully integrable model. We introduced historical background about PDE and some kind of solutions for PDE, also we talk about a nonlinear evolution equation which is very important in so many phenomena of waves solitary waves and soliton solution. We introduced IST method for solving these equations and we write classifications for the integrable models of equations which is solvable by our main method IST and solved a linear example and summarized this method for solving KdV equation. We talk about the family of equations and introduce the AKNS system for this family and gives some examples for the family of equations like Sine-Gordon equation, Sinh-Gordon equation and Liouville's equation.

Keywords: Nonlinear Evolution Equations.

Mathematics Department, Faculty of Science, Zarqa University, Jordan

*Email: nzomot@zu.edu.jo

TRACK B: SOCIAL SCIENCES & BUSINESS MANAGEMENT

Educational Activities for Disabled Adults

Dr. Fatma KOCATURK*

Abstract Non-formal education plays a significant role for profession and preparing life, also can provide an opportunity for disabled adults. The aim and importance of the research To investigate the activities conducted for disabled adults in Turkey, for the first time the research took place. It is believed to contribute to disabled adult education. Method: In this research, phenomenological approach was adopted. Case study conducted. Sample: The Directorate General for Lifelong Learning-affiliated institutions of 81 provinces (universe) participated. Data collection tool: Provinces were asked to answer the question: "What kind of studies do you perform for disabled adults?" Data collection and analysis Province reports were reached by mail or electronically. With experts' opinions, literature and legislation search; variables were examined. Using content analysis, codes and categories were listed in terms of percentage and frequency. Findings: Seven categories were found: opened courses, conducted research, given information and made publicity studies, regulated education and circumstances, studied disabled groups, provided coordination, applied financial works. Commonly disabled adults had taken handicrafts, personal development, music&performing arts, literacy, art&design, information technology courses. Some provinces used surveys, provided training and made physical arrangements. Mild mental inadequacy, orthopedic disability, visual and hearing impairments, down syndrome were the most common disabilities in adult education. Public institutions, NGOs, special education schools, municipalities and other educational institutions were cooperated. Besides, transportation and employment were provided. Conclusion: As a result, disabled adults took only few courses. Most of the provinces kept away from research, training, rearrangements and financial issue. Institutions for adults addressed to limited disabled groups. Also, there was no specific coordination system. It is recommended to policymakers to work on problems of disabled adults.

Keywords: Adult Education, Special Education, Disabled.

Ministry of Education General Directorate of Personnel, Turkey

*Email: fatmakocaturk@yahoo.com

A Study on Awareness for Working of Nepalese People and Their Economic Activities

Yuya Okubo^{1*}, Haruka Yamashita², Manita Shrestha³, Masayuki Goto⁴

Abstract According to the IMF, Nepal's nominal GDP per capita is among the lowest in Asian countries, and its improvement is urgently needed. Nepal's economic problems are usually taken up only from a macro point of view, and are rarely discussed from the micro viewpoints like awareness and attitudes of people, etc. The purpose of this research is to consider the problems of economic activities from a micro point of view, to analyze in detail the economic problems that cannot be identified from macro data, and to find out for the improvement measures. In this study, we conducted a field survey in three areas: Kathmandu, Lumbini, and Chitwan in Nepal. For the survey, we designed a questionnaire including not only economic-related questions, but also detailed economic-related ones such as a question about the ability required at work. In addition, we also surveyed the awareness of occupations in order to discuss solutions that are suitable in Nepal. In the field survey, data were collected by face-to-face questionnaire survey, and statistical methods were applied to analyze the data. As a result of the survey, the issues that the government and local administrations should tackle have become clear. In addition, it has become possible to propose solutions that are suitable for Nepal's occupational awareness. For example, 163 of 348 people answered that they want to work for a side job. However, only 99 people actually have a side job. This result shows that 18.4% of people do not currently have a side job although many Nepalese people hope it. If they can find an appropriate side job, it is expected to have a positive impact on the economic activities in Nepal. Thus, this study clearly investigates the economic problems in Nepal and shows several effective solutions for the problems.

Keywords: Nepalese People, Economic Activities .

^{1,4}School of Create Science and Engineering, Waseda University, Japan, ²Department of Information and Communication Science, Sophia University, Japan, ³Tokyo Gakugei University, The United Graduate School of Education

*Email:yuya.for.waseda@fuji.waseda.jp

Livelihood-Based Environmental Education for Environmental Conservation in Nepal-Focus on Gender Perspectives-

Manita Shrestha^{1*}, Reiko Matsubaguchi²

Abstract When we discuss environmental education in developing countries, livelihood aspects and gender perspectives are decisive factors. In rural villages of developing countries such as Nepal, people are heavily dependent on the forest for daily life. Their forests are the most important source of resources vital to the household economy. Women are responsible for forest conservation. In their hands lie many decisions regarding the use of natural resources. Despite that, the roles of women are not recognized properly because of the lower social status and domination of men. However, the current environmental education model in developing countries mainly focused on the natural environment and lacks a particular focus on livelihood aspects and gender perspectives. There is a limitation to solve the environmental problems and social problems that affect environmental conservation through this conventional type of environmental education. Therefore, this research incorporates "livelihood-based environmental education", focus on gender perspectives, and investigates environmental protection in Chitwan district of Nepal through surveys on the adoption of bio-gas technology to enhance their stewardship of the forest and improve livelihood. The survey found that most often men participate in educational programs on bio-gas technology for environmental conservation, and the decision to adopt bio-gas is also made without giving knowledge about it to the women who are responsible for household works. Because of a lack of comprehensive instruction, most of the women are unable to operate a bio-gas properly, and they have to revert back to the use of firewood. Bio-gas has contributed to improve sanitation and a significant reduction in smoke inside the house and health problems. It proves that improvements in the social status of women are essential to participate in educational programs and use their knowledge for environmental conservation, which depends upon the proper use of bio-gas and decrease in the use of firewood.

Keywords: Livelihood based Environmental Education, Gender Perspectives, Firewood, Bio-gas Technology and Chitwan district of Nepal.

Tokyo Gakugei University, The United Graduate School of Education (Allocated University: Yokohama National University), Japan

*Email:manitajk@gmail.com

A Field Study on Awareness of Nepali People and Their World Heritage

Chikayo Shimazaki^{1*}, Haruka Yamashita², Manita Shrestha³, Masayuki Goto⁴, Brenda Bushell⁵

Abstract In 2009, the Nepal government published “Tourism Vision 2020” as a way of attracting more tourists to Nepal through their rich heritage resources. Nepal has four World Heritage sites, which were evaluated by their unique style. However, from 2004 to 2007, Kathmandu Valley was in the List of World Heritage in Danger due to rapid modernization, and damage further expanded due to the major earthquake in 2015, impacting on important heritage sites. After the earthquake, international organizations supported Nepal in the reconstruction of their cultural heritage. In addition, the points of natural resources issue are deforestation of the forest which is an important resource proceeds. Depletion of forest resources causes huge environmental problems and economic problems. The findings in this report are based on a field survey employing an interview style questionnaire in three areas where the heritage sites are located: Kathmandu Valley, Lumbini (the birthplace of the Lord Buddha), and Chitwan National Park. For this survey, we designed a questionnaire including items about the awareness of the mindset connected to cultural and natural heritage. The survey was carried out in collaboration with Nepali people and Japanese university students. Through analysis of data, we identified the awareness of Nepali people for the World Heritage. found that Nepali people think the World Heritage in Nepal is essential to identify their culture and country, regardless of sex, job and education. In addition, it is difficult to maintain World Heritage sites in Nepal through local organizations only, because of financial issues or mindset to supporting from International organization. Adding to these findings, this paper reports the recognition of the local people mindset situation at the time our survey in Nepal. We discuss and consider the best solution for these problems from several different viewpoints.

Keywords: Nepal, World Heritage, Developing country, Cooperation, Field survey.

¹International Studies, University of the Sacred Heart, Japan, ²Department of Information and Communication Science, Sophia University, Japan, ³Tokyo Gakugei University, The United Graduate School of Education, ⁴School of Create Science and Engineering, Waseda University, Japan, ⁵Faculty of Liberal Arts, the University of the Sacred Heart, Japan

*Email: 17chikayo9g6@u-sacred-heart.ac.jp

Approach to Education for Sustainable Society through a School Activity in Nepal

Nahiro Suzuki^{1*}, Manita Shrestha², Haruka Yamashita³, Masayuki Goto⁴, Brenda Bushell⁵

Abstract In Nepal, there are several serious social issues. Two of them are waste management and people with disabilities. The situation of waste management is improving little by little but the change is not huge. Also, there are many disabled persons but support for them is lacking. One of the ways to bring attention to these issues is through education, especially for young children who will lead society in the future. This research is based on a school activity program, crafted around Nepal's targets for the Sustainable Development Goals (SDGs) adopted at the United Nations in 2015. We targeted 5 areas for our school program based on the SDGs: quality education, responsible consumption and production, reduced inequality, sustainable cities and communities and partnerships for these goals. The program was conducted in both urban and rural Nepal—Kathmandu and Chitwan. A total of 126 children were targeted; ages 12 to 15, in grades 6 and 7. The focus activities of waste management and friendly society for people with disabilities were carried out through a mini-lecture, and hands-on learning activities both in the classroom and in the school ground. We collected data for this research through a pre and post questionnaire to find out if there was a change in consciousness through our program. Based on the findings from the questionnaires, we found growth in students' knowledge and understanding of the issues, particularly for students in Kathmandu. We can conclude that given educational opportunities, Nepalese students can be better equipped to create a sustainable society in the future, based on the targets of the SDGs.

Keywords: School activity, Education, Nepal, Sustainable Development Goals, Consciousness of children.

¹International Studies, University of the Sacred Heart, Japan, ²Tokyo Gakugei University, The United Graduate School of Education, ³Department of Information and Communication Science, Sophia University, Japan, ⁴School of Create Science and Engineering, Waseda University, Japan, ⁵Faculty of Liberal Arts, the University of the Sacred Heart, Japan

*Email: 17nahi0918y9@u-sacred-heart.ac.jp

The Study on Factors Influencing Empowerment of Nepalese Women

Mio Imai^{1*}, Haruka Yamashita², Manita Shrestha³, Masayuki Goto⁴

Abstract In developed countries, women's empowerment is recently progressed, and the idea that "men should have a paid work and women should involve in unpaid work like household work or farming" becomes old. However, in developing countries, there are many women who are forced to do unpaid works, and Nepal is one of them. The adult literacy rate of Nepal is much lower for women than men. In addition, the rate of female child marriage is still high, despite "child marriage" became illegal in 1963 in Nepal. Particularly, it is said that the gap between women from rich and poor family background is large depending on the area. Therefore, this research aims at the extraction of factors hindering women's empowerment in Nepal and the discussion of effective future policies. In order to achieve the goal, we conducted a field survey at the capital city (Kathmandu) and two other famous areas for tourism (Chitwan, Lumbini) in Nepal. We designed a questionnaire with selective questions from five degrees and some open-ended questions to ask what they think about education, marriage, and work of women. This questionnaire also includes several items to compare the difference of ideas between men and women, such as the opinion about the idea "All women should get married". According to our survey, nearly 90% of people (374 in 392 respondents) think that women should study in a university, while the percentage of female respondents who could have an opportunity to study in a university was less than 30% of all female respondents. In addition, we noticed that there were many opinions that the main factors hindering women's empowerment are lack of education and awareness through the survey. Through our field survey, we identify the current problems and discuss effective future policies for promoting women's empowerment in Nepal.

Keywords: Area studies / Education / Nepal / Empowerment / Gender inequality.

^{1,4}School of Create Science and Engineering, Waseda University, Japan, ²Department of Information and Communication Science, Sophia University, Japan, ³Tokyo Gakugei University, The United Graduate School of Education

*Email: iamio826@ruri.waseda.jp

Students' perception of the curricular design of the subject educational models of the master's degree in education

Dr. Marisol Esperanza Cipagauta Moyano*

Abstract The Master's degree in Education at Corporación Universitaria Minuto de Dios, Uniminuto, is taught in virtual methodology and includes two lines of deepening: teaching and learning processes, and Leadership and Educational Management. Within the curriculum, one of the fundamental courses is called Educational Models, whose objective is to analyze those from different contexts in which students work or exert as teachers. For the first semester of 2019, a perception survey was applied to the students in order to determine the strengths and improvement areas in the curriculum design, with the purpose of generating co-creation strategies that allowed a collaborative redesign work and update of the course, based on the voice of students as its beneficiaries. Based on the results obtained, a redesign of the course is being carried out taking into account the improvement of instructions for each activity, the inclusion of alternative educational models based on the latest trends in the field of education, teaching strategies and the use of techniques disruptive implemented for instructional design. As part of the conclusions, beyond the new course design, collaborative learning was evidenced in which teachers and students appropriate and manage knowledge with the excuse of updating content that responds to the needs of the context, encouraging the active participation of all involved. Likewise, the work carried out serves as a model to be implemented in other master's courses in order to promote the permanent updating of these, so that they are at the forefront with the job offer for future Masters in Education and their knowledge can be applied effectively in their work contexts.

Keywords: Curriculum design, students' perspective.

Directora Centro de Excelencia Docente Vicerrectoría General Académica, Colombia

*Email: mcipagauta@uniminuto.edu

Student's mobility as a knowledge management indicator in Business Sciences

Dr. Marisol Esperanza Cipagauta Moyano^{1*}, Diana Paola Caro Fonseca²

Abstract The dynamics of education in a global world are in constant change, and with the incursion of technology, strategies that motivate knowledge management and appropriation are required. Therefore, the Direction of International Affairs at Corporación Universitaria Minuto de Dios, promotes the mobility of undergraduate students. For the second period of 2018 and first of 2019, 66 students of the faculty of Administrative Sciences from different cities of Colombia, completed a course called Management Abilities, Entrepreneurship and Innovation; through a blended modality with the University of Salamanca, in Spain. The results of these studies range from a cultural exchange to processes inherent to the internationalization of the curriculum. Students share this experience and qualify it as rewarding and valuable contribution for both their personal and professional lives. The learnings are mutual and there is a good perception from the teachers who accompanied the process, who considered it important for the achievement of professional competences demanded by the labor market. For many students it was the first time they traveled abroad, therefore, the experience was even more enriching and knowing that they would be in studying in an 800-year-old university, the experience was even more challenging. The success of mobility depends on multiple factors, and the attention to detail during the planning influences the outcome, but most importantly is that there can be generated significant learnings for students who chose that degree option.

Keywords: Student Mobility; Curriculum Internationalization; Interculturality; Learning.

^{1,2}Corporación Universitaria Minuto de Dios-Uniminuto/Centro de Excelencia Docente, Colombia

*Email: mcipagauta@uniminuto.edu

Banking Crisis, Efficiency and Survival: Evidence from Turkey with Alternative DEA and SFA Models

Ihsan Isik, Ph.D.^{1*}, Osman Kilic, Ph.D.²

Abstract Barr et al. (1994)'s efficiency and default and Isik and Hassan (2003a)'s efficiency and crisis studies demonstrated that efficiency measures could be utilized to predict the chance of bank failures as well as quantify the impact of crises on banking operations. In this comprehensive paper, we unify these two strands of research, with sixteen distinct efficiency scores generated from two alternative methods, stochastic frontier analysis (SFA) and data envelopment analysis (DEA), in studying the record level of bank failures and the deepest banking crisis of Turkey between 1995 and 2003. The results show that efficiency scores gradually deteriorate before crisis, hit bottom during crisis and rebound after crisis. Inelastic bank inputs and elastic bank outputs and bank costs seem to produce this pattern. While a rise in allocative inefficiencies is the main cause of declined cost inefficiencies, a hike in scale inefficiencies is the major driver of exacerbated technical inefficiencies during a crisis; both of which are more likely to result from mismanagement of macroeconomic system. The most efficient banks have the highest survival rate. Managers of survivor banks are evidently better at controlling costs and scales, utilizing and allocating resources, generating revenues and making profits. Demotion to lower efficiency is a rare event in normal times but widespread during crisis. The least efficient failed banks are the least likely to be acquired by private bidders. Prediction models notably improve with DEA scores, off balance sheet items, definition of failure with "factual insolvency", deciles of efficiency, changes in some key variables, homogenous dataset, and technical efficiency scores based on quantities of inputs/outputs instead of noisy prices.

JEL Classification: C67; D2; E32; G21; G28

Keywords: Crisis, efficiency; default; DEA; SFA; Turkish banks.

¹Professor of Finance Rowan University, NJ, USA, ²Professor of Finance, Quinnipiac University, CT, USA

*Email: Osman.kilic@quinnipiac.edu, isik@rowan.edu

Impact of Augmented Reality on the Society: Pro and Con

Gbenga T. Omoniyi^{1*}, Shahrudin Awang Nor², Nor Iadah Yusop³

Abstract The positive contributions of augmented reality to the society are of recent more elaborated among researchers. Among the various positive contributions of augmented reality are: 1) contribution to consumer and retailer relationship through mobile devices; 2) contribution to marketing and advertisement fields; 3) contribution to facial recognition software through mobile applications that will mainstream without delay; 4) contribution to navigation devices built into the cars and the mobile devices for everyday commuters and drivers; 5) contribution to application of Google Glass and VIPAAR for surgery; EyeDecide for patient education on eye health; skin cancer app that assesses moles in real-time vision and receive feedback; Glasses and devices that locates veins, thereby allowing blood-work operations performed quickly; 6) contribution to educational application in classroom and out of classroom. However, augmented reality comes with some negative impacts which include cybercriminals that capitalize on augmented reality to scam the innocent users that use the augmented reality technological devices. To mitigate this negative influence, some factors need to be addressed. Presented in this paper therefore are the factors that are responsible for the negative influence of augmented reality on the society. Among the listed positive contributions of augmented reality, findings show that marketing related fields and educational institutions are the two areas of augmented reality applications that cyber criminals can capitalized on for their negative satisfactions.

Keywords: Augmented reality, Society, Cybercriminal, Mobile application, Contribution.

¹Awang Had Salleh Graduate School, UUM College of Arts & Sciences, Universiti Utara Malaysia,

²2SETARA, PPPM (PT) & Rating Manager, Strategy Planning Division, Institute of Quality Management, Universiti Utara Malaysia, ³School of Computing, UUM College of Arts & Sciences, Universiti Utara Malaysia

*Email:geegartea@yahoo.com

Website

<http://acrsolutions.org/>

Events

<http://acrsolutions.org/international-conferences/>

