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CONFERENCE PROCEEDINGS BOOK OF ABSTRACTS

ICEEEAS-2014 Malaysia

International Conference on Economics, Energy, Environment and
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1-2 November, 2014
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Qazi Muhammad Adnan Hye



In the present epoch of globalization, Research has assumed pivotal significance. A flood of inventions and discoveries in every sphere of spirit has happened due to research and development. Where the pace of inventions, discoveries and technological advancement in developed nations is spectacular there a lot of Asian and African nations are even not able to imitate these advancements in the right way. Though a lot of nations have spent a substantial amount of their budgets on education, but still the desired results have not been achieved. Thus the only option available to encounter this problem is a serious concentration on research and development. In this context, ICEEEAS-2014 provides a platform to the scholars of Economics, Energy, Environment and Agricultural science from all regions of the world, to share new ideas, discuss innovative solutions to the world problems, and to promote research culture. This cross germination of ideas will not only boost up the research environment in the developing world, but will also be beneficial for the developed nations to faster their pace of research. This conference is a sincere effort by Asian Economic & Social Society (AESS), SEGi University and Pak Publishing group (PPG) to promote research in Asian developing nations. The success of the conference owes to many stakeholders. Starting from Reviewing Committee, I will heartily extend my gratitude to our respected reviewing committee for their efforts to review all of the papers of this conference. I also thank to all session chairs for extending their cooperation to get this conference successful. Heartiest thanks to the learned scholars for being with us as keynote speakers. The success of any event depends upon the Participants it have, so I covey my sincere thanks to the participants of this conference who really made it a memorable, knowledge sharing and learning event. I am also indebted to our collaborating partner SEGi University for playing their vital role in making this event successful.

At the end my message to all scholars is to diffuse the light of knowledge to every nook of the globe. Since everything in the universe is immortal, why don't we execute such things memory of which thus ego from heart to heart and from generation to generation.

May God bless you with health, wealth, name and fame.

Qazi Muhammad Adnan Hye

Founder, Asian Economic and Social Society
Editor-Chief, Asian Economic and Financial Review
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Emeritus Professor Mohamed Sulaiman, PhD



Emeritus Professor Mohamed Sulaiman holds a Ph.D. (Business Administration) from University of Wales Cardiff, U.K., MBA from Catholic University of Leuven, Belgium and a B.A. (Economics) from University of Malaya, Kuala Lumpur. He laid the foundations of the School of Management, Universiti Sains Malaysia (USM) and shaped the development of the school. Now the school has more than 1200 undergraduates in 5 majors (Finance, Marketing, Organization & Human Resources, & Operations Management) as well as a Bachelor of Accounting, 200 MBA students and more than 120 M.A and Ph.D. students. He was instrumental in developing the MBA program to be one of the top 25 MBA programs in Asia Pacific. Besides, he designed the Doctor of Business Administration (DBA) which was launched in 1999. The school has grown from 6 faculty members in 1981 to 53 in 2004 and now the MBA & DBA Programs formed the Graduate School of Business at USM.

Emeritus Professor Mohamed Sulaiman founded the Asian Academy of Management (AAM) in 1994. It has about 200 members. The AAM publishes two journals, the AAM Journal (twice a year) and the AAM Journal of Accounting and Finance, which are internationally refereed and both are listed in Scopus index. The AAM also convenes the AAM conference once every two years. Each conference is usually attended by 120 representatives from 20 to 30 countries from Asia, Australia, Europe, Africa and North America. He held the Chair Professor of Islamic Management at Faculty of Economics and Management Sciences, International Islamic University Malaysia.

He was appointed to the prestigious Tun Razak Chair Professor at Ohio University, USA for 1997-2000. After retiring from USM he was Head of Department at Faculty of Economics and Management of International Islamic University Malaysia, before being appointed as Chair of Islamic Management. He is now Adjunct Professor at the Graduate School of Management, IIUM.

Emeritus Professor Mohamed Sulaiman has graduated 31 PhD's in the area of Strategic Management, Organizational Behavior, Leadership and International Business. He had published more than 60 papers in international journals.

Paper No: ICEEEAS-503

Indonesian Palm Oil Industry in Supporting Energy Securities in Indonesia

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Abstract

Indonesia is blessed with rich in natural resources to provide energy for the world and Indonesian people. However, nowadays Indonesia face problems in importation of fossil fuel that challenging national energy security. In other side, Indonesia exports palm oil products including palm oil mill and palm kernel meal that mostly used to supply demand of world's oil/fat based food products, feedstock for supporting animal husbandry and also feedstock for energy production e.q. biodiesel. Palm oil industry also produces by-products and residues both in plantation as well as in palm oil mill that may supply feedstocks for renewable energy in form of biomass, biodiesel and biogas. Palm oil biomass as well as fibre, shell and EFB based-CPO production on 2013 can generate electricity around 2 GWh, 4 GWh and 2.16 GWh respectively. This potential bioenergy can be competitive as an energy feedstock compared with fossil fuel. The huge quantities of biomass available from the palm oil industry may contribute to support energy security in the Indonesian context.

Keywords: Biodiesel, Biofuel, Biogas, Energy security, Renewable energy

Paper No: ICEEEAS-517

Young of Today, Agriculture: Pedestal of Development and Protection of The Environment

ILY SombÃ© Sylvain Abraham¹ - - - Amos Miningou²

Abstract

Young of today, Agriculture: Pedestal of development and protection of the environment Africa is very vulnerable. The climatic distresses already compromise the conditions of life of the populations on a continent victim of poverty, of the deterioration of the ecosystems and the civil and social unrests. More than 40,5% of the Africans live in the extreme poverty and, among them, 70% live in the farming zones, essentially subsisting thanks to agriculture. The climatic changes touch the agriculturists in all four corners of Africa. The entry of a big number of youngsters in this sector is going to accelerate probably of rhythm and to give a stroke of shoot to this sector of activity. Agriculture is recognized by the leaders of Africa like source of growth, an instrument to improve the food security, and a means to preserve the continent of the precious natural resources. But attention!!! Agriculture has an aging work hand in Africa. Agriculture is already the biggest employer of Africa. As potential sector to absorb a bigger number of new claimants of employment and to offer an interesting work with public and private advantages that becomes clearer, agriculture is going to win more attention of the political decision-makers again, if the results of the research on the Environment and Agriculture were accessible to all, including the peasant in his plantation. The present levels of investments on the projects of youngsters for the Agricultural and Environmental research are not even sufficient to get the conclusive results and good outputs. Too few things have been dedicated to palliatives, as: the formations of the relief, the subsidies of the inputs, the mechanization, and the improvement of the technologies and the practices of long-term management... The efforts are in progress to solve the constraints bound to the environment and the climatic risks. The Agricultural and Environmental Research must as well as the structures and private Institutes, operating in these domains, greatly redoubled of effort. Some very definite programs must be established, to bring resolution at the end to the problems bound to the needs of the young in the environment but also in agriculture. Although in the past agriculture in Africa, has always been achieved by aged people, according to the requirements of the society and the profession, this tendency must turn around actually toward the African youth that is possessor of the energy and the physical strength. At us in Burkina, the climatic and environmental conditions don't encourage the agriculture in a general way too much: soils are poor, dry and arid, the very rare rains, the inaccessibility of the agricultural inputs, devastating of cultures, the lack of adequate technologies' All it is justified by the geographical position of the country making more difficult the farmworks. It is exactly for these reasons that youth donot take to agriculture, what has for consequence the farming exodus and the increase of the unemployment rate, and yet the economy and the development of the country depend strongly on

agriculture. One very often says to Burkina that" Agriculture is the basis of the economy of the Country ". So arrangements have been taken by the authorities in the goal to take the young of Burkina to invest in Agriculture and to protect the Environment. - To encourage the young to enter into agriculture and the environment, the basis of the development of our country, - Creation of protective and maintenance systems of the environment - Creation of system of restoration of soils damaged - To provide financial Supports, of the Formations and to Supervise the young in their Projects - To make more Accessible the results of the research on Agriculture and the Environment.

Paper No: ICEEEAS-519

Environmental Sustainability with Green Energy and Smart Technology -A CGE Modelling Approach-

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Abstract

Sustainability policies that have quantitative emission or carbon footprint measurements are important in view of climate change and rapid urbanization in developing countries like Malaysia. Although sustainability policies are revealed in national development plan as early as in the 1990s, many of these policies are piecemeal and expressed qualitatively. In achieving environmental sustainability, planning of city or a region can be more functional and implementable by using low carbon city concept. Taking into account this idea by building a computable general equilibrium (CGE) model, this study successfully examined usefulness of economic measure based on the simulated macroeconomic and sectoral factors. An input-output (I-O) table and social accounting matrix (SAM) is the cornerstone in designing a CGE model. This study, therefore, attempted to utilize the most updated 2005 input-output table of Malaysia along with using several statistics, including the national population census, manufacturing census and commerce census. Modelling results showed that the after implementing the subsidy policy on environmental friendly production and purchase, large increase rates are found in the total investment 0.29%, renewable energy purchase 0.33%. Thus, subsidy plan have proven as the most significant contributors compared to environmental tax policy. Therefore, the present research suggests applying this model into Malaysia's economy to ensure environmental sustainability with green energy and smart technology.

Paper No: ICEEEAS-522

The Effect of Fungi and Cattle Manure to Plant Cadmium Concentration and Corn Biomass in the Lead Waste Mine Soil Province Bangka Belitung Contaminated with Cadmium

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Abstract

Lead waste that occur in Bangka causing surrounding soil were damaged and also contain heavy metal Cd in its soil, one of the solutions to reduce Cd concentration is by bioremediation. The research was conducted to determine the effect of fungi and cattle manure as organic matter to plant Cd concentration, corn (*Zea mays* L.) biomass, soil pH and rhizosphere fungi population at the Bangka lead waste mine soil. The research was conducted at Greenhouse of Faculty of Agriculture Universitas Padjadjaran, Laboratory of Soil Fertility and Plant Nutrient, Laboratory of Soil Biology Faculty of Agriculture Universitas Padjadjaran in Sumedang from April until July 2013. The pot research was arranged in a Factorial Randomized Block Design with first factor was fungi isolate which consisted of 3 levels and the second was cattle manure dose which consisted of 3 levels, with 3 replications. Corn hybrid P21 planted for six weeks in the ex mine soil that contaminated by CdCl₂.0,5H₂O up to 8 mg kg⁻¹ and inoculated by fungi and cattle manure according to treatment. Interaction between fungi and cattle manure only affect the total rhizosphere fungi population, JAK 1 + 22 g cattle manure treatment gave the highest total rhizosphere fungi population. There was an independent effect of cattle manure to plant Cd concentration and plant dry weight. Cattle manure treatments at 11 g and 22 g could reduced plant Cd concentration and cattle manure treatment at 22 g gave the highest plant dry weight.

Keywords: Cadmium, Fungi, Cattle manure, Corn (*Zea mays* L.)

Paper No: ICEEEAS-542

Responses of some Cowpea Genotypes (Vigna unguiculata L. (Walp) to water stress in Relation to Growth and Yield Parameter's at Gaya Sudan Savannah, Nigeria

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Abstract

For the achievement of a sustainable cowpea productivity, maximum yield and crop quality, a drought management is an important aspect of cultural practice that needs to be studied and its effects to be critically examined. Understanding the cause and effects of the drought mechanism will pave way to elucidate the genetic factors responsible for all the factors. Consequently, the genes identified can be manipulated to the advantage of farmers. Therefore, drought can be managed through breeding tolerant crop together with the use of improved agronomic management practices. This experiment was conducted at Kano University of Science and Technology farm in a screen house located at Gaya Local Government in 2012/2013, to evaluate the responses of some selected cowpea genotypes to drought. Twenty varieties were used in the experiment and were all obtained from IITA Kano Station. The varieties were laid out in randomized completely block design (RCBD), The crops were irrigated daily using a small watering can until the partial emergence of the first trifoliate leaf, after which watering was stopped then resumed at 1 and 2 weeks interval. Based on the crop performance in terms of some growth and yield parameters, the varieties were rated as drought tolerant or susceptible. The results indicated that some varieties such as IT99K – 241 – 2, IT08K – 215 – 2, DAN'ILAN and IT03K – 378 – 4 have the highest value in both yield and root parameters compared with other varieties. On the other hand, the least value in almost all the yield and root parameter was recorded against variety IT98K – 131 – 2. The following varieties IT99K – 241 – 2, IT08K – 215 – 2, DAN'ILAN and IT03K – 378 – 4 were noted as the most tolerant varieties to drought and therefore, recommended for growing in drought prone areas of Kano State.

Keywords: Drought tolerance, Cowpea varieties, Irrigation Scheduling, Growth and yield parameters

Paper No: ICEEEAS-545

Response of Lemna Minor and Salvinia Natans as Bio-Sequester and Removal Agents Toward Fe, Cu And Zn Toxicities Through in Vivo Model System

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Abstract

A lack of macrophytes in aquatic ecosystem may suggest a reduced population of wildlife whereas the absence of macrophytes may indicate problems in water quality. However an overabundance of macrophytes may due to excessive nutrients, organic or heavy metals interference. Aquatic macrophytes are well known as a good accumulator for heavy metals in phyto-technologies approach since the last decades. Therefore this study aimed to assess heavy metals sequestration rate of Lemna minor and Salvinia natans at three different concentrations ranging from low, medium and high (1 mgL⁻¹, 2 mgL⁻¹ and 5 mgL⁻¹) of three types of heavy metal (Cu, Fe and Zn) at four different period of time (week 1 until week 4) through in vivo model system. The results established that there were significant differences between the sequestration rate of both species. S. natans ability and resistance over 3 types of heavy metal toxicity were much more higher and stable compared to L. minor and the capability of both species were varied and depending on the plant tolerance or resistance mechanism itself. Thus, the high correlation between metal removal in water and aquatic plant species indicates that those plants can effectively use for the removal of heavy metals from polluted or contaminated aquatic ecosystem of different concentrations.

Keywords: Lemna minor, Salvinia natans, Aquatic macrophytes, Heavy metals, Bio-sequester, Model system

Contribution of Study: First time isolate having biosurfactants producing bacteria potential along with phenanthrene degradation was isolated from oil contaminated soil with very low CMC value (120 mg/L) compared to commercial available surfactants. Isolate has great potential for biodegradation of phenanthrene (51%) within 3 days of incubation study.

Paper No: ICEEEAS-549

Isolation, Screening and Functional Characterization of Biosurfactants Producing Bacteria from Oil Contaminated Sites

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Abstract

Biosurfactants are amphiphilic compounds produced extracellularly by microorganisms on cell surfaces, or excreted extracellularly. They contain hydrophilic and hydrophobic moieties that reduce surface and interfacial tension between molecules at the surface and interface respectively. In the present study, biosurfactants producing bacteria were isolated from terrestrial samples collected in areas contaminated with crude oil. Isolates were screened for biosurfactants/bioemulsifier production using qualitative and quantitative test. Out of 37 only nine isolate were found to be positive for biosurfactants. The highest surface tension reduction (34.20 ± 0.52) with 62% emulsification index was found for MKOD36. It was shown that isolated strain produce biosurfactants with low CMC (120mg/L) value compared to synthetic surfactants. Degradation studies showed that selected strain has great potential for biodegradation of phenanthrene (51%) within 3 days of incubation study. Onset of biosurfactant production differ significantly among the isolates. Isolation from crude oil contaminated sites using this screening protocol presented proved to be a rapid and effective manner to identify bacterial isolates with potential industrial applications.

Keywords: Biosurfactants, Isolation, Qualitative, Quantitative, Phenanthrene degradation.

Paper No: ICEEEAS-551

Importance of Intellectual Capital and Innovation in Agricultural Insurance Sector

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Abstract

There are many factors that influence performance of insurance companies. In order to sustain competitive advantage and increase satisfaction of customer and stakeholders, an insurance company needs to offer high-quality services at low cost. Economists assert that intellectual capital (IC) is a vital asset that helps organizations to create value in present economic syndrome and enables organizations to be innovative. Many authors have examined the relationship between IC and "Innovation" to influence firm performance. Their findings have shown that IC can boost the organizational performance through knowledge, experiences, skills of employees and also by defining new methods of task performance and being innovative in their processes. Further, prior studies concluded that IC of an insurance company indicates the value of ideas and capability of being innovative for a longer period. Therefore, this paper presents the importance of innovation and IC in insurance companies by focusing on agricultural insurance sector.

Keywords: Intellectual capital, Innovation, Firm performance, Insurance industry, Agricultural insurance sector

Paper No: ICEEEAS-552

Eutrophication State Monitoring for Unhealthy Aquatic Ecosystem Via Free-Floating Macrophytes Pattern

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Abstract

Nutrient enrichment or eutrophication is a process of increasing plant nutrients in water bodies, frequently due to run-off from the land, which causes a dense growth of plant life. Eutrophication process is assisted by internal and external sources of nutrients such as nitrogen fixation and phosphate. In freshwater ecosystem, anthropogenic source of nutrients such as detergents, fertilizers and organic debris are among the sources of excess nutrients for nitrogen and phosphorus. It also has been proved to be a major factor which contributes to eutrophication and consequent algal blooms, spreading of certain aquatic macrophytes, depletion of oxygen and loss of key species leading to degradation of many freshwater ecosystems. This study aimed to discover the abilities of free-floating aquatic macrophyte species as a phytoindicator for eutrophication either at contamination or pollution level in polluted aquatic ecosystem to support their upcoming development and prospective through landscape ecology approach. The effects of nutrients (ammonium, phosphate, nitrate and nitrite), the free-floating aquatic macrophytes and locations have been studied on eutrophication in aquatic freshwater ecosystem. All species (*Eichhornia crassipes*, *Lemna minor*, *Neptunia oleracea*, *Spirodella polyrhiza*, *Salvinia molesta* and *Pistia stratiotes*) were detected with high level of phosphate at level III at all localities (Pahang, Selangor and Kelantan). Ammonium concentration was varied from class I to class III. In conclusion, changing in *E.crassipes*, *L.minor* and *S.polyrhiza* pattern and behavioral are proven to be the best phytoindicator for eutrophication state monitoring.

Keywords: Eutrophication, Phytoindicator, Free-floating macrophytes, Aquatic ecosystem

Paper No: ICEEEAS-556

Landscape pattern and fragment of *Sonneratia alba*, *Avicennia alba* and *Rhizophora apiculata* in mangrove ecosystem as an effective ecological indicator tools for inorganic contaminants monitoring

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Abstract

Mangrove forest ecosystems are threatened by direct impacts such as cutting and pollution due to agricultural, industrialization and urbanization activities. Mangrove forests are often regarded as unpleasant environments with little intrinsic value. Mangrove forests perform valued regional and site-specific functions. Mangrove species can take up excessive nutrients and also play a crucial role in creating a favourable environment for a variety of chemical, biological and physical processes that contribute to the inorganic removal and degradation of organic compounds. Of the many mangrove species *S. alba*, *A. alba* and *R. apiculata* have been studied for biomonitoring of toxic heavy metals elements (Fe, Cu, Zn, Pb and Mn) in a wide range of plant tissues (roots and leaves) and sediment composition at three different locations in Negeri Sembilan, west coast of Malaysia. The results established that there were significant differences between the three mangrove species, locations, plant tissues and sediment samples and their interaction for all the five heavy metals content. The findings revealed that leaf tissues for all species accumulated mostly Fe, Zn, Pb and Cu. Interestingly we noticed that different localities will accumulate different type of heavy metals, for instance *R. apiculata* leaf tissues were detected with higher concentration of Cu and Pb at Kampung Sungai Sekawang whereas in another 2 sites were detected with Cu, Fe, Zn and Pb. *S. alba* indicated that the most heavy metals highly accumulated was Zn followed by Pb and Cu. In this study *A. alba* showed Zn was highly accumulated in leaf tissues at Pasir Panjang. Thus, those three mangrove species appear to have the greatest potential for use as an effective ecological indicator tools for inorganic contaminants monitoring in mangrove ecosystems.

Keywords: *Sonneratia alba*, *Avicennia alba*, *Rhizophora apiculata*, Phyto-indicator, landscape monitoring, heavy metals, Ecological indicator

Paper No: ICEEEAS-559

Phytoremediation Model System for Aquaculture Wastewater Using *Glossostigma elatinoides* and *Hemianthus callitrichoides*

**Rashidi Othman¹ --- Farah Ayuni Mohd Hatta² --- Razanah Ramya³ ---
Nurul Azlen Hanifah⁴ --- Maheran Yaman⁵ --- Zainul Mukrim
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Abstract

The aquaculture industry has made a great contribution towards economic development of Malaysia. However, the large volume of water consumption and the wastewater discharged into the water source caused a significant environmental problem that must be controlled properly. For instance, aquaculture waste may decrease dissolved oxygen level and load high nutrient and inorganic contaminants which subsequently would cause water deterioration. Thus, to ensure the effectiveness of aquaculture practices, the suitable wastewater management approach should be acquainted. Phytoremediation, which are the application of plant-based technologies, are beginning to be accepted as sustainable and green solutions for this issue. Therefore, this research aims to explore ecological approach by developing phytoremediation model system in order to remediate inorganic pollutants produced by aquaculture industry. In this paper, the efficiency of potential aquatic plants which are *Glossostigma elatinoides* and *Hemianthus callitrichoides* to sequester cadmium and copper were investigated. To achieve this, water sample in several ponds of selected aquaculture area in Perak, Peninsular Malaysia was collected and analyzed in order to identify inorganic contaminants type and concentration. As a result, cadmium, chromium, copper, iron, lead, and zinc were among the contaminants found in the water pond. As a result phytoremediation model system was developed using two selected submerge aquatic plant species for three different concentrations (low, medium and high) of cadmium and copper. This model system was run over three different periods of time, which are week 1, week 2, and week 3. The findings of this research suggested that the capability to sequester different concentration of heavy metals for certain periods of time were varied between different species. The expected outcome of this research is to introduce cost- effective and eco-friendly technology to cater environmental pollution. Hence, having the thorough study on the effectiveness of this technology might contribute towards sustainable aquaculture practices in terms of ecological, economical, and social benefits.

Keywords: Aquaculture, Phytoremediation, Cadmium, Copper, *Glossostigma elatinoides*, *Hemianthus callitrichoides*.

Paper No: ICEEEAS-560

Aquatic Plants as Ecological Indicator for Urban Lakes Eutrophication Status and Indices

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Abstract

There is an increasing pursuit of utilizing plants as a gear to predict, describe and diagnose environmental stresses. Being united swiftly with their environments, granting them to offer beneficial information on the condition of the aquatic environment. The aquatic plant species are effectively reliable indices as water status indicators. Their ability in taking up metal and toxic pollutants has shown their level of strength as well as tolerance in any concentration levels. Eutrophication is also being associated with the existence of aquatic plants. This widespread crisis in water bodies is made by over enrichment with N and P. Excess nutrients can trigger undesirable eutrophication, resulting in unhealthy algal blooms, spreading of certain aquatic macrophytes, depletion of oxygen and loss of key species, resulting in widespread degradation of many freshwater ecosystems. A broad number of physico-chemical parameters and biological characteristics render the degree of quality of water resources. Supervising above parameters is a crucial part to classify the magnitude and origin of any pollution load. The study was carried out to determine the levels of Nitrite (NO₂), Nitrate (NO₃) and Phosphate (PO₄), in different stations of urban lakes in Kuala Lumpur and Selangor. Data for physico-chemical parameter were classified according to the Interim National Water Quality Standard, Malaysia (INWQS). The significant outcome of this research is the abundance or loss of certain key species can be used as indicator for eutrophication state and level for urban lakes management and maintenance.

Keywords: Aquatic plants, Phytoindicator, Eutrophication, Urban lake, Ecological indicator

Paper No: ICEEEAS-561

Sequestration Rate of Heavy Metal Contaminants using Riccia Fluitans as Potential Phytoremediation Agent in Polluted Aquatic Ecosystem

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Abstract

The application of green technology is the combination of the environmental science and technology in which helps the improvement and application of products, apparatus as well as the system to safeguard the natural resources and the environment. Aquatic plants have been increasingly being utilized as remarkably efficient and responsive apparatus for diagnosing and predicting environmental stresses. Thus, this research aimed to assess Riccia fluitans capability and potential as a phytoremediation agent to remediate heavy metal contamination in an unhealthy aquatic ecosystem. Subsequently, Riccia fluitans was exposed to three types of heavy metals (Mn, Zn and Pb) at three different concentrations (1.0, 2.0 and 5.0 mg l⁻¹) at four different periods of time (week 1 to week 4). All heavy metals were analyzed through HACH DR5000 spectrophotometer. As a result, among five heavy metals tested, Riccia fluitans revealed as a good agent to sequester Mn, Zn and Pb at 3.75mg/L, 4.8mg/L and 0.3mg/L respectively. The analysis affirmed the accumulation of different metals within the plant and an equally lessen of metals in the water. An eloquent equivalence between type of heavy metals and concentration, period of time and Riccia fluitans were attained. As a conclusion, Riccia Fluitans is proven to be a potential biosequester agent for polluted aquatic environment.

Keywords: Green technology, Phytoremediation, Heavy metals, Aquatic ecosystem, Biosequester agent.

Paper No: ICEEEAS-563

Kuala Lumpur Urban Biodiversity: A Relation Between Urban-Birds and People

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Abstract

Due to the growing human population, numerous developments are needed until today. Thus, it caused massive changes to the landscape from natural to built environment. Consequently, the earth confronted critical issues on protection and restoration of biodiversity. The impact of urbanization on biodiversity is concerned on the relationship between biodiversity and urban ecosystem. The aim of this paper is to investigate abundance of urban biodiversity and its benefits to the urban community. The triangulation methodology address three step approaches biodiversity observation, atmospheric measurement and human dimension. However, this study will present the abundance of bird observation in year 2010 and 2014. 11 species of birds were identified. The highest number of birds recorded is (*Acridotheres tritis*/common myna (n=56) in 2010 and (n=19) in 2014. It is recorded that there are decreasing number of birds species such as Zebra Dove and Magpie Robin. There are new species identified in 2014 the Black Crowned Night Heron which are rarely found in urban area. The study presents and empirical survey on bird species. The declining of green space in urban affected the bird species population. It is suggested that bird conservation in urban context should be emphasized. It could improve the ecosystem services as well as health and well-being benefits.

Keywords: Urban biodiversity, Bird species, Ecological indicator and Urban ecosystem.

Paper No: ICEEEAS-553

A Theoretical review on Critical Success Factors (CSFs) of Entrepreneurship Programs in Community College

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Abstract

The focus of this study is to identify the cross sectional point of view by applying Critical Success Factors (CSFs) into entrepreneurship programs in Community colleges under the supervision of Ministry of Education (MOE). Entrepreneurship Program is regarded as a transformation effort in trying to create new entrepreneurs and indirectly reduce the unemployment rate. It is also regarded as a program that would enable students to compete locally and globally in an era where competition is inevitable. Critical Success Factors is widely used tool in business in to aid the organisation to identify the factors that constitutes to a success of a given project. The four elements of Critical Success Factors (CSFs); which was introduced by Rockart 1979 are Industry, Strategy, and temporal environment are engaged by organisations or projects in order to achieve the desired outcome. Hence this paper sets out to investigate the elements of CSFs and adapt the elements to the entrepreneurship programs conducted in the community college. Therefore this CSFs provides academic scholars and industry practitioners a deeper knowledge of CSFs and necessary guidelines to utilise the elements in the programs.

Keywords: Critical Success Factors (CSFs), Entrepreneurship Program and Community College.

Paper No: ICEEEAS-539

Estimating the economic impact of *Trypanosoma evansi* on pastoral camel production in Somaliland

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Abstract

The traditional livestock sector in Somalia is based on nomadic pastoralism where sheep, goats and camels are herded in large numbers. However, the level of animal productivity is generally low due to diseases and poor management. Data from a cross-sectional seroprevalence survey for *T. evansi* infection in camels and a questionnaire survey were used to estimate the losses associated with reduced productivity and the financial benefit in adopting control strategies against the disease. This study only examined productive male and female camels between the ages of 5 and 20 years old. Data from 1609 females (27% lactating) and 550 males (26% exported) belonging to 40 pastoralists were analysed in this study. The results indicate that the majority (88%) of respondents recognised the importance and impact of surra on camel production, particularly household income and the consequent social impact. The expected amount of revenue the herders could lose per year in the studied area was estimated at US\$404,630 being made up of US\$314,630 from decreased milk yield and US\$90,000 from reduced market value of exported animals if no treatment was administered. Overall the benefit in treating camels in the study area was US\$487, 440 (n=2159). On average US\$720 were saved per head from improved milk production in treated animals and US\$615 from the increased value of exported camels. It is concluded that strategic approaches to the control of *T. evansi* can play a major role in achieving efficient and economically viable production of camels in Somaliland.

Keywords: *Trypanosoma evansi*; Economic impact; Pastoral camel production, disease control

Contribution of study: This study highlighted the impact *T. evansi* infection had on milk yield and meat production. Failure to treat animals results in significant annual financial losses. Adopting a disease control strategy resulted in an annual benefit of US\$383,040 in terms of gains through increased milk production and camel export market.

Paper No: ICEEEAS-523

The Investigation and Analysis Impact on Transformational Leadership Dimensions on Entrepreneurs Performance in SMEs Mayaysia

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Abstract

The objective of this paper is to test a general framework of transformational leadership from an experiential view, which aims to describe the extent to which entrepreneurial performance is influenced by the transformational leadership dimensions (Idealized, Inspirational, Individualized, Intellectual). The study was conducted 304 respondents in Malaysia and research results are analyzed by using structural equation modeling. As a result of this study, transformational leadership dimensions of Idealized, inspirational, Individualized, and Intellectual have positive effects on entrepreneurial higher performance. The research findings indicate that individualized and intellectual dimensions appear to be far more salient than idealized and inspirational in shaping and building meaningful and long lasting success of entrepreneurs.

Key Words: Transformational leadership, Idealized, Inspirational, Individualized, Intellectual, Entrepreneurs and Entrepreneurship.



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