



*Academy of Applied and
Engineering Research*

ABSTRACT PROCEEDING BOOK

**AAER 2nd International Conference on
Communication, Engineering, Data Mining, Information
Technology & Applied Sciences**

CEDIA-MAY-2019

Venue: Hotel H2O Manila (Meeting Room 2, 3rd Floor), Philippines

Date: May 23-24, 2019

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Book of Abstracts Proceedings

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Manila, Philippines
May 23-24, 2019

Email: contact@academy-aer.com
URL: <http://academy-aer.com/>

Book of Abstracts Proceedings

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Manila, Philippines | May 23-24, 2019
Whats App Contact: +971-56-2448120

SCIENTIFIC COMMITTEE

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ORGANIZING COMMITTEE

Dr. Renan P.Limjuco

Conference Chair

Marina Kacaribu

Conference Coordinator

Dr. Buchari Lapau

Conference Coordinator

CONFERENCE TRACKS

- Fundamental and Applied Sciences
- Catalysis
- Chemical Sciences
- Material Science and Engineering
- Electrical and Electronic Engineering
- Computer Engineering and Sciences
- Mechanical Engineering
- Biological Engineering
- Chemical Engineering
- Civil Engineering
- Environmental Science
- Advanced Chemical Engineering
- Thermodynamics
- Advanced Process Control
- Advanced Transport Phenomena
- Bridge Engineering
- Coastal Engineering
- Computational Mechanics
- Hydrology
- Transportation and Highway Engineering
- Paramedical Sciences
- Medicine Sciences
- Biological and Life sciences
- Radiation Physics for Medicine and Biology
- Physical System Modeling
- Thermal system Analysis
- Wave Propagation in Elastic Solids

CONFERENCE CHAIR MESSAGE

Dr. Renan P.Limjuco

“International Conference of Academy of Applied and Engineering Research (AAER) ” is a dedicated platform to promote and encourage the latest advancements in Science, Engineering Technology & Applied Sciences for the benefit of human development through highly significant research contributions, conferences, and other professional, educational and mentoring activities. AAER provides a unique platform for engineers, scientists, and technologists at all levels and at all times for across the globe to communicate and networking.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let’s get over all sorts of discrimination and take a look at the wider picture. Let’s work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Dr. Renan P.Limjuco

Conference Chair

Email: renan@academy-aer.com

CONFERENCE SCHEDULE

**AAER 2nd International Conference on Communication, Engineering, Data Mining,
Information Technology & Applied Sciences (CEDIA)**

May 23-24, 2019

Thursday-Friday

Hotel H₂O Manila (Meeting Room 2, 3rd Floor), Philippines

Start Time

09-00 am - 09-10 am: Registration & Kit Distribution

09-10 am - 09-20 am: Introduction of Participants

09-20 am - 09-30 am: Inauguration and Opening address

09-30 am - 09-40 am: Grand Networking Session

Tea/Coffee Break (09-40 am - 10:00 am)

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Thursday-Friday

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10:00 am 12:00 pm: First Presentation Session

Track A: Business, Economics, Social Sciences and Humanities

Paper ID	Manuscript Title	Presenter Name
BTSSI-MAY19-PH105	Cyberlofing Levels of Hotel Employees A Research in Konya	Mehmet ahin
BTSSI-MAY19-PH106	Evaluation of Customer Complaints of Restaurants in Tripadvisor: The Case of Konya Province	Alper Ate
BTSSI-MAY19-PH107	Examination of Leasing Transactions in Tourism Enterprises Within the Scope of Turkish Financial Reporting Standard (Tfrs) 16	Hac Arif Tunez
MNS-459-107	Dynamism in the Beauty, Health and Wellness in the MLM Companies: Framework for an Effective Rewards System	Merryrose Red Palma
MNS-459-108	Modelling Student Satisfaction Through I-E-M Method for Improved Learning Experience of Selected Generation Y and Z Engineering Students	Romalyn L. Galingan

Track B: Engineering & Technology, Computer, Basic & Applied Sciences

CEDIA-MAY19-PH101	Linear Modeling Of Material Fracture Time Under High Temperature Creep Conditions	Roberto Fernandez Martinez
CEDIA-MAY19-PH106	A Modified AES for File Cryptographic Transformation based on Reduced-Round with Revised Round Keys and Key Schedule	Edjie M. De Los Reyes

Lunch Break & Closing Ceremony (12:00 pm - 01:00 pm)

Conference Day 02 (May 24, 2019)

Second day of conference will be specified for touristy. Relevant expenses are borne by Individual him/herself.

TRACK A

BUSINESS, ECONOMICS, SOCIAL SCIENCE & HUMANITIES

Cyberloafing Levels of Hotel Employees: A Research in Konya

^{1*}Mehmet ahin, ²Alper Ate, ³Hac Arif Tunez

^{1,2,3}Selcuk University,Turkey

Corresponding Email: sahinmehmet@selcuk.edu.tr

Keywords: Cyberloafing, Tourism, Hotel Employees, Internet

Cyberloafing is a form of deviant behavior in working life which affect both employees goal and organizational goals. Cyberloafing is voluntary acts of employees using their companies Internet access and IT equipments for non-work-related purposes during working hours. Cyberloafing has reported to increasingly become a serious threat to organizational performance and efficiency. Cyberloafing leads to unproductive organization and could even cause lawsuits. The aim of this research is to identify impact of demographic factors on cyberloafing of hotel employees in Konya/Turkey. The data were collected by questionnaire and were analyzed by SPSS 21 software. In the analysis of the relation between demographic factors and cyberloafing behavior significant relationships were observed in the levels of 0.05 and 0.01. Implications of these findings for research are discussed

Evaluation of Customer Complaints of Restaurants in Tripadvisor: The Case of Konya Province

^{1*} Alper Ate, ²Mehmet ahin, ³H. Arif Tuncez
^{1,2,3}Selcuk University, Turkey
Corresponding Email: alpera@selcuk.edu.tr

Keywords: Online complaints, Restaurants, Konya, Tripadvisor.

In today's modern world where tourism activities have developed at a great rate, restaurants in a region have become an important element of attraction for tourists coming to the region as well as the aim of providing services to local people. Comments and ratings from various social media applications have an important role in shaping tourist holiday experiences. In this study, it was aimed to classify and evaluate the negative customer comments with the help of descriptive analysis on tripadvisor.com about the restaurant in the center of Konya. Within the scope of this objective, restaurants that scored one and two points over five of the 246 restaurants in Konya province were analyzed with the MAXQDA program. Restaurant customers mostly complain about price, taste, overall quality of service, personnel behaviour and hygiene.

Examination of Leasing Transactions in Tourism Enterprises Within The Scope of Turkish Financial Reporting Standard (Tfrs) 16

^{1*}Hac Arif Tunez,²Alper Ate, ³Mehmet ahin

^{1,2,3}Selcuk University,Turkey

Corresponding Email: hatuncez@selcuk.edu.tr

Keywords: Leasing, Tourism Enterprises, TAS.

Tourism is one of the most important sectors affecting the economies of the country in the globalization process. Tourism covers the activities of individuals for reasons such as recreation, entertainment, education, health, sports, religion and culture within a certain period of time. Tourism enterprises, temporary displacement resulting from accommodation and other needs are the units for the elimination. Tourism activities contribute to countries in many ways, such as social, cultural and political. But its biggest contribution is its positive impact on the economy. Developments in technology have increased the need for financing to make new investments in tourism sector as in every sector. Businesses can meet their financing needs through different methods. One of these methods is the leasing method. Today, businesses operating in the tourism sector can obtain significant financial convenience by leasing their assets. TFRS 16 Leases standard, a lease, "For a fee, the right of use of an asset is a part of the contract that has been transferred for a certain period of time". This standard addresses the accounting policies and disclosures that should be applied by the lessee and the lessor in relation to all leases. Leasing arrangements are an effective and flexible solution in acquiring property without the risk of ownership in many cases. The purpose of this study is to examine tourism enterprises within the scope of TFRS 16 standard.

Dynamism in the Beauty, Health and Wellness in the MLM Companies: Framework for an Effective Rewards System

*Merryrose Red Palma

Centro Escolar University, Manila, Philippines

Corresponding Email: merryrose.bitsi@gmail.com

Keywords: Multilevel Marketing, Marketing Strategies, Rewards System and Motivation

People these days are aware of the presence of the multilevel marketing (MLM) beauty, health and wellness companies that could provide additional income to support their families while others think that MLM companies are a pyramid scam. This study looks deeper into the nature and status of the MLM business in the country, with focus on coming up with a viable rewards system for MLM workers that can enhance the business reputation and dispel any misconceptions that this type of marketing is a scam. The study determined the framework for an effective rewards system and included four hundred (400) members of different multilevel marketing companies as respondents of this study, such as members from Usana, Frontrow, Uno, and Global Prime Innovation (GPI). Individuals tend to have lesser time due to family responsibilities. The motivating factors offered to individuals by MLM companies are all effective but members of MLM companies are motivated the most by bonuses, and commendations. Accordingly, the researcher has a proposed reward system that can encourage members to maintain their membership and stay with the company for 3 to 5 years or more. Rewards systems exist to motivate the members of MLM towards achieving strategic goals that are set by management. In terms of satisfaction factors, they perceived that direct selling and trust empowerment give satisfaction on the rewards system. Lack of time and lack of budget to visit in the office are the main reasons why members quit in the beauty, health and wellness from MLM companies. The MLM members were satisfied with all attributes of the MLM, it is recommended that the marketing skills of MLM members, especially those who have no college degree, must be developed and that the commission rate of the MLM members must be improved to better motivate them in their work. The members must be committed and focused on the vision and mission of MLM companies so they can contribute to the accomplishment of the vision and mission. The MLM companies must provide better incentives for the members to better motivate them. The proposed rewards system of the researcher may be evaluated and implemented by the MLM companies. High educational attainment is not required in MLM companies. Training of members is very important in all types of organization because it will lead to better knowledge and improved skill of staff. Fast turnover of products income is beneficial to the MLM companies as the revolving capital availability will not be a problem.

Modelling Student Satisfaction Through I-E-M Method for Improved Learning Experience of Selected Generation Y and Z Engineering Students

*Romalyn L. Galingan

Polytechnic University of the Philippines

Corresponding Email: romegalingan@gmail.com

Keywords: Cohort, Engineering Student, Generation Y, Generation Z, Learning Preference

Generational cohorts are groups of individuals sharing birth years, history, and characteristics. The last Generation Y students are currently college and the Generation Z students are currently starting to stream into the tertiary level education. In a few years, this generation Y cohort will comprise the majority of the college and university students. Much research has been performed on matching learning styles to teaching styles, but not enough research has been done to match the learning preference to generational cohorts. Many instructors and educators believe that there are too many learning styles and factors to consider for each student, thereby deeming the classroom changes too difficult to institute. The goal of this research is to find the most significant predictors of student learning for generation Y and generation Z students. This study determined that generational cohort and learning preference are associated with each other. Specifically, this paper sought to ascertain if there is a significant difference between the learning styles and perceived level of importance of factors affecting engineering students level of satisfaction when grouped according to their respective generational cohort Generation Y and Generation Z This study used Descriptive Method. A survey questionnaire is used to gather data. The survey questionnaire is pilot tested and validated before being deployed to engineering student respondents. Statistical treatment is applied to analyze the data gathered and to validate statistical significance. Data showed that there is significant difference on the learning style of Generation Y and Generation Z engineering students. But there is no significant difference in the preferences when respondents are grouped according to gender. Results also showed that generation Y engineering students see Teaching Method and Feedback and Learning Preferences as significant indicators of overall student satisfaction. On the other hand, Generation Z students find Teaching Method, Learning Environment and Feedback and Learning Preferences. From these significant findings the study puts forward the I-E-M method Integrate, Evolve and Modernize framework that engineering colleges could adapt to optimize engineering students satisfaction.

TRACK B

***ENGINEERING & TECHNOLOGY, COMPUTER, BASIC & APPLIED
SCIENCES***

Linear Modeling of Material Fracture Time Under High Temperature Creep Conditions

^{1*}Roberto Fernandez Martinez, ²Pello Jimbert, ³Jose Ignacio Barbero, ⁴Lorena M. Callejo, ⁵Igor Somocueto

^{1,2}College of Engineering in Bilbao, University of the Basque Country UPV/EHU, Bilbao, Spain, ^{3,4,5}Fundacion TECNALIA Research & Innovation, Industry and Transport Division, Foundry & Steelmaking Area, Parque Tecnologico de Bizkaia, Geldo Street, Building 700, Derio E48160, Bizkaia, Spain.

Corresponding Email: roberto.fernandezm@ehu.eus

Keywords: Modeling, Temperature, Martensitic

912% Cr martensitic steels are widely used for critical components of new, high-efficiency, ultra-supercritical power plants because of their high creep and oxidation resistances [1]. Due to the time consuming effort of obtaining creep properties for new alloys under high temperature creep conditions, in both short-term and long-term testing, it is often dealt with simplified models to assess and predict the future behavior of some materials. In this work, the total time to produce the material fracture is predicted according to a linear model, since this property is really relevant in power plants elements. This model is obtained based on 344 creep tests performed on modified P92 steels. A multivariate analysis and a feature selection were applied to analyze the influence of each feature in the problem [2], to reduce the number of features simplifying the model and to improve the accuracy of the model. Later, a training-testing validation methodology was performed to obtain more useful results based on a better generalization to cover every scenario of the problem [3]. These actions finished with the reduction of the complexity of the model, the initial number of features (22) was reduce in more than a 50 % (10). In addition, it was obtained a knowledge of the relation of each feature with the fracture time reducing the initial uncertainty of this relation. And finally, a model with lower error was obtained based on the feature study, meant a RMSE reduction from 10.22% using the whole dataset to 9.29% after feature selection.

A Modified AES for File Cryptographic Transformation based on Reduced-Round with Revised Round Keys and Key Schedule

^{1*}Edjie M. De Los Reyes, ²Dr. Ariel M. Sison, ³Dr. Ruji P. Medina

Technological Institute of the Philippines

Corresponding Email: emdelosreyes@tsu.edu.ph

Keywords: Security Encryption, Cryptographic, Transformation

The continuing advancement of technology had provided security issues in protecting the confidentiality of information. The need to protect unauthorized access of a third party is warranted. In this paper, the reduced-round modified AES with revised round keys and key schedule is proposed to ensure confidentiality. The modifications to the AES cipher round was the reduction of the round iterations from 10 to 6, and additional key permutations were added in between states; while in the key schedule, an additional byte substitution process was appended. The CBC mode was also utilized to ensure non-duplication of encrypted blocks even if the plaintext blocks are the same. The application was designed to transform any files, and four criteria were used to evaluate the proposed application. Time and throughput were utilized to measure the performance of the application's encryption/decryption process; while the avalanche effect and randomness tests were used to measure the security of the modified AES algorithm. There were six randomness tests utilized in this study, and they are Frequency Test within a Block, Runs Test, Binary Matrix Rank Test, Discrete Fourier Transform Test, Linear Complexity Test, and the Approximate Entropy Test. The results of evaluations have shown that the encryption and decryption time have improved by 1.27% and 1.21% respectively while the throughput has similarly improved by 1.29% and 3.19% for both encryption and decryption respectively. Whereas the avalanche effect of the modified AES was 50.06% which was more than the ideal value of 50% and it was also better than the standard AES which was 49.94% using the sample dataset. Finally, all the ciphertext outputs of the modified AES passed the six randomness tests, meaning that their p-values were higher than 0.01 as compared to the standard AES wherein there were three instances of a non-random result.

UP COMING EVENTS

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<http://academy-aer.com/upcoming-conferences/>



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