SNAIT 2019

International Conference on Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology

May 03-04, 2019 / Singapore

Proceedings of International Conference on Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology
(SNAIT)

Conference organized by:

Research Forum
for Applied Sciences,
Engineering & Technology

**Research Forum
for Applied Sciences,
Engineering & Technology**

This conference is dedicated to educators all over the world and to the members of the Research Forum for Applied Sciences Engineering and Technology (RFAET) whose passion for teaching, learning, research, and service are helping to transform the academy in many positive ways.

Mission, Vision, and Core Values

Exploration of new research bits of knowledge and an intuitive stage for improving innovation and advancement

Lead the researchers through global communication and collaboration.

Scholastic Innovation, Excellence and Integrity, Insightful Research, Networking, Professional Leadership, Assorted Variety and Equity, Collegiality and Collaboration, Corporate Social Responsibility

Membership, Conference, Publishing, and Research Information

If you are interested in serving as the volunteer reviewer for the next conference, please contact:
mail: info@aet-forum.com
Web site: aet-forum.com

Research Forum for Applied Sciences Engineering and Technology

Table of content

Welcome Message

The Research Forum for Applied Sciences Engineering and Technology (RFAET) welcomes you to the Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology (SNAIT).

We are happy you decided to join your colleagues from around the world to explore innovative technologies, pioneering pedagogical strategies, and a sampling of international collaborations that are being used to engage and retain students, researchers and Scholars in the new millennium.

Scientific Committee

Jan Fook, International Centre for Higher Education Educational Research, Leeds Trinity University, UK

Jennifer Bowerman, MacEwan University, Canada

Jo Ann Rolle, Medgar Evers College, The City University of New York, USA

John Davies, Victoria University of Wellington, New Zealand

Julie Baldry Currens fromHigher Education Academy, UK

Lela Pumphrey, The British University in Egypt

Lobna Ali Al-Khalifa, National Authority for Qualifications & Quality Assurance of Education & Training (QQA), Bahrain

Jan Fook, International Centre for Higher Education Educational Research, Leeds Trinity University, UK

Jennifer Bowerman, MacEwan University, Canada

Jo Ann Rolle, Medgar Evers College, The City University of New York, USA

John Davies, Victoria University of Wellington, New Zealand

Imbarine Bujang, Universiti Teknologi MARA, Malaysia

Jeff Ritter, Marketing Concentration Chair, Keiser University, USA

Jennifer Bowerman, MacEwan University, Canada

JP Spencer, Cape Peninsula University of Technology, Cape Town, South Africa

Lobna Ali Al-Khalifa, National Authority for Qualifications & Quality Assurance of Education & Training (QQA), Bahrain

ManojKumar Gandhi, Jaysingpur College of Arts, Commerce, Science and Computer Science, Maharashtra State, India

Mudrajad Kuncoro, Gadjah Mada University, Yogyakarta, Indonesia

Justin Henley Beneke, University of Winchester, UK

Acknowledgements

Conference Description

Research Forum for Applied Sciences Engineering and Technology (RFAET) provides an excellent venue for generating ideas. Conference participants will explore the latest trends, practices, and research in engineering technology and Applied Sciences tracks. The program will emphasize experimentation and pushing the boundaries of higher education.

ENGINEERING TECHNOLOGY

Acoustical Engineering Aerospace Engineering, Agricultural Engineering Biological Engineering and Sciences, Biological Systems Engineering Biomedical Engineering, Bioprocess Engineering Biotechnology, Building Services Engineering Chemical Engineering, Industrial Engineering Information Engineering, Informational Technology Manufacturing Engineering and Technology, Materials Engineering Mechanical Engineering, Mechatronics Nanotechnology and Nanoengineering, Naval Engineering Nuclear Engineering, Technology for Cloud Computing Technology for Community, Technology for Digital Age Technology for Human Use, Technology for Learning Civil Engineering, Computer Engineering Current issues and challenges in Engineering, Electrical Engineering Electronic Engineering, Energy Engineering Environmental Engineering, Food Engineering Genetic Engineering, Geotechnical Engineering Ocean Engineering and Technology, Optical Engineering Petroleum Engineering, Power Engineering Process Engineering, Resource Engineering Sensing Technology, Structural Engineering Systems and Software Engineering, Technology for Big Data Textile Engineering, Thermal Engineering Transport Engineering, Web Engineering Vehicle Engineering

APPLIED SCIENCES

Artificial Intelligence, Architecture, Astronomy, Biological Sciences, Botany, Chemistry, Design, Earth Science, Ecology, Marine Science, Physics, Space Sciences, Life sciences, Computer Sciences, Logic, Mathematics, Statistics, Systems Science, Electrical Engineering, Information, Technology, Industrial Engineering, Mechanical Engineering, Applied Physics, Health Sciences and Medicine, Ceramic Engineering, Computing Technology, Electronics, Energy, Environmental Engineering Sciences, Engineering physics, Environmental Technology, Fisheries Science, Forestry Science, Materials Engineering Micro technology, Nanotechnology, Nuclear, Technology, Optics, Zoology Transportation

Conference Awards

Best Paper Awards
The Organizing Committee will select the best paper considering the recommendations of the Scientific Review Committee based on the relevance to the theme, academic contribution, accuracy of the methodology, clarity of contents.

Best Presentation Awards Sessions
The best presenter in each session will be selected considering the scientific quality, contents, time management, presentation style and level of interaction with the audience. The best presenter in each session will get a certificate.

Best Presentation Awards Students
These awards will be awarded the best presenters selected from the PhD or Master level students' presenters. The selection criteria will be scientific quality, contents, time management and presentation style.

Conference Schedule

International Conference on Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology (SNAIT)

Grand Pacific Hotel, Singapore
May 03-04, 2019

09: 00 am 09: 20 am	Registration and Reception
09: 20 am 09: 30 am	Opening ceremony
09:30 am 09: 45 am	Welcome Remarks
09: 45 am 10: 00 am	Tea Break

International Conference on Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology(SNAIT)

Day 01: Friday
May 03, 2019

Session 01: (10:00 am 10: 45 am)

Session Chair: Soong Ju Oh

Track A: Engineering Technology & Applied Sciences

Presenter Name: Mohammad Borhan Uddin

Reference ID: SNAIT-May-001

Paper Title: Modified Carbonate Apatite Nanoparticles-Facilitated in vitro Delivery of siRNA(s) Targeting Calcium Ion Channels Kills Breast Cancer Cells

Presenter Name: Pampolina, Mark Alain B

Reference ID: SNAIT-May-002

Paper Title:Web Based Attendance and Evaluation System with Prescriptive Analytics

Track B: Business, Management, Economics, Social Sciences & Humanities

Presenter Name: Waratthaphorn Ngarmngern

Reference ID: FBMSH-FEB-005

Paper Title: Branding for Thai SMEs - Standing out from Cosmetics Industry: A Review of Updating Status

Presenter Name: Inthavong Khodpangna

Reference ID: SHEBB-MAY19-106

Paper Title: On the Corporate Social Responsibility Methods: Toward Informed in Business Management Inquiry in Laos PDR

Presenter Name: Inthavong Khodpangna

Reference ID: SHEBB-MAY19-107

Paper Title: Sports Fan Loyalty to the Growth of the Sports Industry: International Perspective

Presenter Name: Unnop Chaiwut

Reference ID: SHEBB-MAY19-106

Paper Title: On the Corporate Social Responsibility Methods: Toward Informed in Business Management Inquiry in Laos PDR

Presenter Name: Tibor Pal

Reference ID: SHEBB-MAY19-102

Paper Title: Debt Deflation and Deleveraging in the Eurozone: A Theoretical and Empirical Analysis

Presenter Name: Md. Golam Kibria

Reference ID: HSMBM-MAY-006

Paper Title: Employee Knowledge Sharing Behavior: A Study of Telecom Companies Operating in Bangladesh

Presenter Name: Nongnit Chancharat

Reference ID: HSMBM-MAY-001

Paper Title: The Determinations of Trading Behavior of Individual Investors: Evidence from Thailand

Conference Attendees

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

Participant Name: Mrs. Porntida Visaetsilapanonta

Reference ID: HSMBM-MAY-014

Country: Faculty of Social Sciences and Humanities, Department of Population Education, Mahidol University, Thailand

Participant Name: Miss Kasamaporn Poungprayong

Reference ID: HSMBM-MAY-015

Country: Faculty of Social Sciences and Humanities, Department of Population Education, Mahidol University, Thailand

Participant Name: Miss Nichapas Tungborwornpimol

Reference ID: HSMBM-MAY-016

Country: Faculty of Social Sciences and Humanities, Department of Population Education, Mahidol University, Thailand

Closing Ceremony & Lunch (12:30 pm 01:00 pm)

International Conference on Smart Materials, Nanotechnology, Applied Sciences, Engineering & Information Technology (SNAIT)

Day 02: Saturday
May 04, 2019

Conference second day is reserved for participants own tourism activities.

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

Modified Carbonate Apatite Nanoparticles-Facilitated in Vitro Delivery of Sirna(s) Targeting Calcium Ion Channels Kills Breast Cancer Cells

[1*]Mohammad Borhan Uddin, [2]Mohd Farooq Shaikh, [3]Mark M. Banaszak Holl,[4] Ezharul Hoque Chowdhury

[1,3,4] Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia

[2]Department of Chemical Engineering, Monash University, Clayton Campus, Australia

Corresponding Email: mohammad.uddin@monash.edu

Specific gene knockdown facilitated by short interfering RNA (siRNA) is a potential approach for suppressing expression of ion channels and transporter proteins to kill breast cancer cells. Overexpression of calcium ion channels, namely TRPM7, TRPM8, SLC41A1, SLC41A2 and MAGT1 is seen in a variety of breast cancer subtypes. Since naked siRNA is anionic and prone to nuclease-mediated degradation, it has limited permeability across the cationic cell membrane and short systemic half-life, respectively. Carbonate apatite (CA) nanoparticles (NA) were formulated in presence of enhanced bicarbonate salt as compared to classical carbonate apatite, characterized, loaded with ion channels TRPM7, TRPM8, SLC41A1, SLC41A2 and MAGT1 siRNAs and delivered into two breast cancer cell lines to selectively knockdown the respective calcium ion channels. Individual and combined knockdown of TRPM7, TRPM8, SLC41A1, SLC41A2 and MAGT1 genes showed significant reduction in cell viability of breast cancer cells. Therefore, CA-siRNA-facilitated gene knockdown holds a high prospect for deregulating cell proliferation and anti-apoptotic pathways modulated by Ca signalling in breast cancer cells.

Index Terms: Calcium Ion,Proliferation,Characterized

Web Based Attendance and Evaluation System with Prescriptive Analytics

[1*]Pampolina, Mark Alain B, [2]Busse, Therese A [3]Mark M. Banaszak Holl,[4] Ezharul Hoque Chowdhury

[1,3,4] University of Perpetual Help System-Laguna, Philippines

Corresponding Email: c15-1610-882@uphsl.edu.ph

Problem StatementThe main goal of this study is to improve the operation process of getting the attendance and computing the evaluation results to monitor training programs being held by the school for their employees and to reduce / lessen the unreliable and time-consuming process of their manual operation and it can be accessible through any forms of technologies that has an internet connection.

MethodsRapid Application Development was used to facilitate faster software development scheme of the system. Use case diagrams, activity diagrams and class diagrams were utilized to illustrate the system functions and routines. Various fact finding techniques in the analysis, design, development and evaluation of the intended software were used. Fact finding instruments such as interviewing and observation were applied to determine the requirements of the desired application. Questionnaires were used for measuring the efficiency of the proposed system as evaluated by the end-users.

ResultsResults of the evaluation on the proposed system were based on an ISO 25010 standard which showed that the criteria on portability ranked as the highest, followed by the functionality, criteria for usability, reliability, security and maintainability, and lastly, criteria for the efficiency of the proposed system ranks as the lowest. The result of the evaluation showed that the developed system have achieved its functional requirements in applying the modern way of tracking and evaluating trainings through on-line. Therefore, the proponent highly recommends that the proposed system be implemented for an effective and efficient evaluation tool.

ConclusionUsing a Web Based Training and Attendance Evaluation System with Prescriptive Analytics is a great solution to the ever building stacks of paper cluttering desks and file cabinets, and provides immediate feedback about training performance which eventually benefits the management to increase their productivity, and the employees to monitor their own learning, in particular.

Index Terms: Evaluation,Proliferation,Employees

Track B: Business, Social Sciences and Humanities

Employee Knowledge Sharing Behavior: A Study of Telecom Companies Operating in Bangladesh

Md. Golam Kibria [1*], Dr. Ikramul Hasan [2]

[1,2]Department of Management Information Systems (MIS) Independent University, Bangladesh (IUB) Lecturer Dhaka, Bangladesh

Corresponding email: mdgolamkibria@iub.edu.bd

The purpose of this research is to develop a conceptual model on knowledge sharing behavior and to investigate the relationship between attitude towards knowledge sharing, perceived behavioral control, subjective norms, organizational climate and employee knowledge sharing behavior in the telecom companies operating in Bangladesh. This is quantitative study by nature and the questionnaire survey was used to collect the primary data. Regression analysis was used to test the hypotheses. Out of the four hypotheses attitude towards knowledge sharing was successful to make influence on the knowledge sharing behavior of the employees, whereas perceived behavioral control, subjective norms and organizational climate fail to predict. The originality of the study combines the TPB model with organizational climate and develops one new model to predict knowledge sharing behavior among the employees working in the telecom companies in Bangladesh. The research findings shared in this study are the snap short of the current findings and the survey is going on. Therefore, further studies are required to draw a more generalized conclusion. The paper contributes to the body of literature relating to knowledge sharing in the telecom industry.

Index Terms: TPB, Organizational Climate, Knowledge Sharing Behavior

The Determinations of Trading Behavior of Individual Investors: Evidence from Thailand

Nongnit Chancharat [1*], Wilaiporn Paisarn [2], Surachai Chancharat [3]
[1,2,3]Faculty of Business Administration and Accountancy, Khon Kaen University, Thailand
Corresponding Email: mnongn@kku.ac.th

Abstract This paper investigates trading behavior among Thai individual stock investors during 2016. Using detailed survey data of 491 investors, we examine the characteristics and behavioral patterns that lead to investor bias. We find that biases are common among investors. Men are more overconfident than women. Moreover, we also find that investors with more experience in trading are less likely to hold their stocks for long times. We also distinguish that investors who age are not more than 45 years old are more hold diversified portfolio. Another finding is that participants who income more than 50,000 Baht a month and the number of brokers which investor employed are more hold diversified portfolio. This evidence is consistent with the findings for Turkey, India and Vietnam showing that demographic factors were found to be useful factors in distinguishing among the level of overconfidence bias of investors.

Index Terms: Behavioral Finance, Trading Behavior, Individual Investors

Branding for Thai SMEs - Standing out from Cosmetics Industry: A Review of Updating Status

Waratthaphorn Ngarmngern,[1*] Suteera Sribenjachot [2], Surachai Chancharat [3]
[1,2,3]North-Chiangmai University, Thailand
Corresponding Email: laknid2529@gmail.com

Abstract The cosmetic industry is an industry that is important to the competitiveness of Thailand. It is classified as a target industry which is supported by the Thai government. Thailand is considered as one of the most important cosmetic production bases in the world with the continuous growth rates and business expansion. However, Small and Medium-sized Enterprises in Thailand are faced with marketing planning and implementation issues, especially the problem of branding for export. This research aims at exploring the dimension of branding for innovative cosmetic industries in Thailand through data collection from relevant research and documentary synthesis. The results of this research will be beneficial to government agencies and also the related agencies. It will help in promoting entrepreneurs in the cosmetic industry. In particular, innovative cosmetic manufacturers in Thailand can apply this researchs result to formulate a strategy and policy as well as to design the plan which is related to the development and promotion of branding for the cosmetic industry in Thailand. All is to create the competitiveness nationally and internationally in the future.

Index Terms: Branding, Cosmetics industry, Innovation, SMEs, Thailand

On the Corporate Social Responsibility Methods: Toward Informed in Business Management Inquiry in Laos PDR

Inthavong Khodpangna [1*], Siriphan Chureemas [2]
[1,2]North-Chiangmai University, Thailand
Corresponding Email: gradmba2558@gmail.com

Abstract Nowadays, the world is facing various globalization conditions. The global community is facing income inequality, child labor issues and human rights violations. Corporate social responsibility is a business approach which is responsible for the economy, laws, ethics, as well as social expectations from business performance. Lao PDR is one of the countries in ASEAN that has potential and has gotten attention from investors and because of this, there are rapidly expanding businesses. Economic growth of Lao PDR has affected society and the environment such as wastewater, air pollution, noise pollution and biodiversity destruction as well as the use of a large amount of natural resources in the operation process especially water resources and electric power. In Lao PDR, there are a few amounts of studies of corporate social responsibility issues. Most of the implementation of social responsibility in Lao PDR is about the educational activities, volunteer and donation. The researcher is interested in studying corporate social responsibility management by searching for the facts from applying knowledge, conceptual frameworks and theories that has been studied to help in data collection and analysis process. It is to obtain important results and bring them to be developed to a strategy for managing corporate social responsibility and suggestions for developing business organizations in Lao PDR. This is for Lao PDR to be competent in running a balanced and sustainable business.

Index Terms: Corporate social responsibility, Business Management, Laos PDR

Sports Fan Loyalty to The Growth of The Sports Industry: International Perspective

Unnop Chaiwut, [1*], Wilaiporn Paisarn [2], Miss Jatuporn Vongmahadlek [3]
[1,2]North-Chiang Mai University
Corresponding Email: tunnop2@hotmaIL.com

Abstract In the era of globalization, there are various industrial divisions divided into different categories, each with different and interesting industry groups, namely the sports. This article aims to summarize the concepts and studies on loyalty that are important to the dramatic changes in marketing and the sports industry, including identifying the factors that influence the loyalty of sports fans, which affects the development and growth of the sports industry. A review of the literature on loyalty shows the meaning of loyalty, loyalty phases, and loyalty in the sports industry leading to the loyalty of sports fans. Included is an exploration of the factors and related concepts of loyalty in the international sports industry that demonstrate an importance associated with the loyalty of sports fans. There is no conclusion regarding the factors of loyalty that are appropriate for the sports industry. Executives and marketers should focus on finding important factors for the loyalty of sports fans and for influencing them in order to increase real results and the growth of the sports industry. If a business knows the factors that influence the loyalty of sports fans, it will have a sustainable competitive advantage over competitors and sustainable growth in the sports industry.

Index Terms: Sports Fan, Loyalty, Sports Industry, Attitude, Behavior

Debt Deflation and Deleveraging in the Eurozone: A Theoretical and Empirical Analysis

Pedro J. Gutierrez Diez, [1*],Tibor Pal [2], Miss Jatuporn Vongmahadlek [3]
[1,2]University of Valladolid, Spain
Corresponding Email: tunnop2@hotmail.com

Abstract According to the Fisherian debt deflation theory, the occurrence of a drop in the overall price level causes an increase in the real interest rate through the Fisher equation. The higher real interest rate, in its turn, increases the real debt burden and originates a reduction in the lending activity, starting a deleveraging process. This deleveraging process initiated with deflation reduces the economic activity, causing additional deflationary pressure in a feedback loop between the variables leading to a vicious circle. In this paper we provide a theoretical as well as an empirical analysis of Fisherian debt deflation theory. From the theoretical perspective and taking as referential framework monetary general equilibrium theory, we design a limited participation model able to coherently and consistently explain the Fisherian debt deflation theory and the underlying links between deflation, real interest rates, and the leverage degree of the economy. These theoretical results are empirically analyzed for the Eurozone making use of a Vector Error Correction model, which allows the data on these variables to be satisfactorily explained.

Index Terms: Fisherian, Interest, Deleveraging

The Determinations of Trading Behavior of Individual Investors: Evidence from Thailand

Nongnit Chancharat [1*], Wilaiporn Paisarn [2], Surachai Chancharat [3]

[1,2,3]Faculty of Business Administration and Accountancy, Khon Kaen University, Thailand

Corresponding Email: mnongn@kku.ac.th

Abstract This paper investigates trading behavior among Thai individual stock investors during 2016. Using detailed survey data of 491 investors, we examine the characteristics and behavioral patterns that lead to investor bias. We find that biases are common among investors. Men are more overconfident than women. Moreover, we also find that investors with more experience in trading are less likely to hold their stocks for long times. We also distinguish that investors who age are not more than 45 years old are more hold diversified portfolio. Another finding is that participants who income more than 50,000 Baht a month and the number of brokers which investor employed are more hold diversified portfolio. This evidence is consistent with the findings for Turkey, India and Vietnam showing that demographic factors were found to be useful factors in distinguishing among the level of overconfidence bias of investors.

Index Terms: Behavioral Finance, Trading Behavior, Individual Investors

Upcoming Events

http://aet-forum.com/snait-may-2019/

http://aet-forum.com/teese-may-2019

http://aet-forum.com/sisa-june-2019/

http://aet-forum.com/ctsam-june-2019/

http://aet-forum.com/eeee-august-2019/

http://aet-forum.com/tiac-august-2019/

http://aet-forum.com/cean-september-2019/