

PROCEEDINGS

TPIEA-2018

**International Symposium on Theory
and Practice in IT Engineering &
Applied Sciences**

**Venue: TKP Tokyo EKIMAE Conference Center
Tokyo, Japan**

Date: February 22-23, 2018



CONFERENCE BOOK OF ABSTRACT PROCEEDINGS

Consortium-ET

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*International Symposium on Theory and Practice in IT,
Engineering & Applied Sciences (TPIEA)*

Venue: TKP Tokyo EKIMAE Conference Center Tokyo, Japan

Conference Theme: Provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Engineering and Technology.



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CONFERENCE TRACKS

- Computer and Software Engineering
- Mechanical & Metallurgical Engineering
- Electrical & Electronics Engineering
- Civil Engineering
- Bio-Technology & Food Technology
- Chemistry & Chemical Engineering
- Physical, Applied and Life Sciences
- Interdisciplinary

CONFERENCE CHAIR MESSAGE

Michael Sasaoka

“International Conference of Consortium of Engineering & Technology” is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the social sciences and applied sciences.

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.

Michael Sasaoka

Conference Chair

Email: contact@consortium-et.com

DAY 01 Thursday (February 22, 2018)

First Presentation Session (10:00 am - 12:00 pm)

Venue: Room 1

Session Chair: Dr. Vincent

Track A: Business, Economics, Social Sciences and Humanities

Presenter Name	Manuscript Title	Paper ID
Drsika Desai	Exploring fuel import substitution in India and its vestibule effects on Industries	EGER-FEB-103
Shawn Sejera	Culturally Derived Leadership Qualities: Dispositional Resilience Among Societies	EGER-FEB-104
Patcharalak Watanachai	The Replacement of Anthocyanin-rich flour from Local Sweet Purple Potato for Bakery	EGER-FEB-113
Kanokwan Punaaterkoon	Nutrition Enhancement from Soy Bean Meal as Thai Sweet Chili Pas	EGER-FEB-114
Nisa Pakvilai	The Study of Community Participation in Water Quality Management in Rangsit Prayoonsak, Pathumthanee, THAILAND	EGER-FEB-107
Pannraphat Takolpuckdee	Cold and Sore Throat Prevention Fruit Drink from Local Organic Kumquat and Mixed Herbs as Community Product	EGER-FEB-108
Yong Keun Yoo	Relative Inefficiency between Investors and Analysts on Stock Market Anomaly	TKS-428-101
Yu Wang	Approaches for identifying online opinion leaders	TKS-428-102

Lunch Break (12:00 pm - 01:00 pm)

DAY 01 Thursday (February 22, 2018)

Second Presentation Session (01:00 am - 02:15 pm)

Venue: Room 1

Session Chair: Dr. Vincent

Track B: Engineering and Technology, Computer, Basics and Applied Sciences

Presenter Name	Manuscript Title	Paper ID
Won-Hee Park	Optimization of Characteristics on Specimen Surface during Fire	TPIEA-FEB-107
Pornthip Liewtrakul	A Semantic Web Service Retrieval Approach that Combines Semantic Matching with Quality of Service Matching	TPIEA-FEB-108
Jia-Ying Lin	Improve Quality and Efficiency of Textile Process using Data-driven Machine Learning in Industry 4.0	TPIEA-FEB-110
Shoaib Mansoor	Software-in-the-Loop Simulation for Hybrid Aircraft Control	TKE-428-101
Thomas Kang	Aircraft Impact on Concrete Target Using Finite Element Analysis Software	TKE-428-103

Closing Ceremony

Participants Registered as Listener/Observer

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

Official ID: TKE-428-102A
Junbeom Yoo
KONKUK University, Korea

Conference Day 02 (February 23, 2018)

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

TRACK A

***BUSINESS, ECONOMICS, SOCIAL SCIENCES AND
HUMANITIES***

Approaches for identifying online opinion leaders)

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Keywords: Opinion leaders, Electronic word-of-mouth (eWOM), Social network analysis(SNA)

Today, with the electronic word-of-mouth(eWOM) being popular, Internet users get used to search and share eWOM online and begin to rely on the online opinion leaders, who are professional, socialized, product-involved and who can filter the useful eWOM to the public. As the importance and significant influences of these opinion leaders towards the potential or actual consumers online becomes clearer, marketers and companies gradually set up new strategies by utilizing them. Hence, how to identify the online opinion leaders becomes a hot topic in the related field. After a literature review of the relevant researches, this study concludes that there are three main approaches being widely used for identifying the online opinion leaders, including User Attributes Analysis, Text Mining Analysis and Network Structure Analysis. The user attributes analysis is useful by utilizing the attributes of the individuals, such as their follower number, to identify the opinion leaders. The text mining analysis is popular especially in the BBS in which the text left by the Internet users are kept online and can be analyzed. The network structure analysis, especially the Social Network Analysis(SNA), is widely used to identify the opinion leaders in the online communities. SNA is to use the data to generate social network maps showing the relationships among the members and the social structure so as to identify the opinion leaders by terms of software, such as the UCINET 6.0. Even inside the online communities in which the attributes of the members are not shown, SNA is useful. Furthermore, the literature review has also shown that most of the relevant researches only choose one of these approaches to identify the opinion leaders. In view of these, it is recommended that for identifying the opinion leaders, these three approaches can be used; meanwhile, combining these approaches together will be efficient for more deepened analysis and can be considered as a direction for future research.

Relative Inefficiency between Investors and Analysts on Stock Market Anomaly

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Keywords: Investors Efficiency, Analysts Efficiency, Equity Valuation. JEL Classification: G14, M41.

In this study, we compare the relative efficiency of investors and sell-side analysts in incorporating various accounting information. Our results indicate that the equity value estimates inferred from the analysts earnings forecasts are more biased than the stock prices in interpreting stock price momentum, accruals, and the growth in long-term net operating assets. Therefore, we conclude that sell-side analysts are generally less efficient than investors in incorporating certain accounting information. Thus, sell-side analysts need to mitigate their bias in interpreting such accounting information to enhance market efficiency by providing investors with a good benchmark for their earnings expectation.

Aircraft Impact on Concrete Target Using Finite Element Analysis Software

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Keywords: Finite Element Analysis, Aircraft Impact, Numerical Analysis

The major concerned objective of this paper is to suggest analytical methods to simulate the projectile impact on concrete target using the finite element software of ANSYS LS-DYNA. The concrete is a principal material that has been comprehensively used in the field of civil and architectural engineering including from high-rise structures to long-span bridges. Not only these typically representative buildings, but other structures and national major facilities such as nuclear power plants also have mainly adopted concrete in various ways. These concrete structures should be designed against severe accidents causing structural failure. In this regard, the structural safety of each concrete structure should be evaluated meticulously. The analytical approach is suggested by establishing a numerical model in the software. It is used to simulate actual experiments in the past, aircraft impact experiments conducted by Sandia National Laboratories in 1988.

Software-in-the-Loop Simulation For Hybrid Aircraft Control

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Keywords: Hybrid Aircraft, Thrust saturation, Simulink, Split control, Simulation

In this paper, we present the design of the software-in-the-loop simulation framework for a quad-copter that is incorporated in our hybrid aircraft. The hybrid aircraft comprises of a quad-copter and a fixed wing with one forward thrust rotor. We need to develop a split control system that utilizes a typical quad-copter controller to control four motors/propellers and a supervisor controller to control a forward thrust rotor. The supervisor controller shall take feedback signals from the quad copter and will command the fifth rotor for stabilizing the hybrid aircraft and resolves problems like thrust saturation. The simulation simulates the control algorithm and verifies the quad copter behavior using MATLAB and Simulink together. Achieving these results we come to know that how our hybrid controller will be implemented, what results to expect once the forward thrust rotor is attached to the quad copter. The software-in-the-loop simulation of a quad copter is one of the most effective methods for verifying overall control performance and safety of the hybrid aircraft before actual hardware implementation and flight test.

Nutrition Enhancement from Soy Bean Meal as Thai Sweet Chilli Paste

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Keywords: Protein Enhancement, Fiber Enhancement, Thai Sweet Chilli Paste, Soy Bean Meal

This research was aimed to create the alternative protein and fiber replacement from soy bean meal instead of meat in Thai sweet chilli paste. Moreover, the characterization of nutrition of this product was required. The replacement of soy bean meal instead of dried shrimp was focused. Five ratios of soy bean meal to dried shrimp was studied as 100:0, 90:10, 80:20, 70:30, 60:40 and 50:50 weight by weight of dried shrimp. The nutrition of the standard receipt of Thai Sweet Chilli Paste from residue of soy bean meal was monitored. The nutrition per receipt (377 g) of Thai Sweet Chilli Paste from residue of soy bean meal was shown as follows; Calories = 1071.64 kcal, Protein = 49.36 g ; Total fat = 19.74 g ; Total Carbohydrate = 196.61 g ; Dietary fiber = 18.18 g. Other minerals and vitamins were also reported. The comparison of colour between the classical Thai Sweet Chilli Paste and Thai Sweet Chilli Paste from soy bean meal was done.

The Replacement of Anthocyanin-rich flour from Local Sweet Purple Potato for Bakery.

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Keywords: Anthocyanin, Sweet Purple Potato Flour, What Flour, Color Testing, Ladyfinger Cookies

The aim of this work was to prepare the anthocyanin-rich flour from local sweet potato. Three methodologies to prepare the sweet purple potato flour were studied by the variation of temperature processes. In this study, ladyfinger cookies were prepared. Color and water activity (aw value) properties were determined. The color shades were varied depending on the preparation methods of sweet purple potato flour. The color shades intensity was analyzed. The suitable color shade was with $L = 61.931.50$; $a^* = 10.161.98$; $b^* = -2.530.76$ and $aw = 0.350.04$ that prepared from steam condition. The percentage of anthocyanin was varied from L, a^* and b^* . The 9-point hedonic scale was applied in the product satisfaction. The non-professional training testers were monitored with the duplication testing. The statistical value was also calculated with ANOVA at the 95% satisfaction.

The Study of Community Participation in Water Quality Management in Rangsit Prayoosak Canal, Pathumthanee, Thailand

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Keywords: Community participation, Water Quality Management, Rangsit Prayoosak Canal.

The purpose of this research was to study of community participation in water quality management in Rangsit Prayoosak canal, Pathumthanee. To study the physical, and chemical in water quality. In order to utilize survey data for planning of water resources management, environment and water quality management by community participation. The study of surface water quality in physical and chemical properties of Rangsit Prayoosak canal. Each sampling point, the water content of the surrounding areas varies. There will be suspended solids exceeding standard, the standard of Thailand not exceeds 50 mg/l. The amount of dissolved oxygen in the water is lower than the standard because the area around the canal is obscured by weeds. The dissolved oxygen in the water has less effect on living organisms in some cannot live. Oil and fat are below standard. Therefore, communities around the canal should be aware of the problems that may affect the quality of life of the community, as well as the initial water management system, to help reduce the problem of water in the canal. For example, the grease trap, so talked to the community living on the edge of Rangsit Prayoosak Canal. Raise awareness for problem solving by proposing that knowledge and awareness be raised that may affect the wellbeing of people in the community as well as the initial water management system to help reduce water-related problems of canal in the future. Two activities to be organized: training on water resources management and water treatment, with the invention of small-scale household waste water tanks. Water activity monitoring is provided to the students to create knowledge, awareness, and initial water quality monitoring from observation and use of water quality indicators.

Culturally Derived Leadership Qualities: Dispositional Resilience Among Societies

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Keywords: Leadership, Dispositional Resilience, Organizational Effectiveness

An investigation of dispositional resilience in cultures and its relation to leader effectiveness is presented with an introduction on the study's research problem, research question, discussion of dispositional resilience theory, differing dimensions of cultural and society, theoretical foundations of the variables through a definition of terms, a discussion of the study's research methods and instruments, future analysis implications, and the author's conclusions. The research purpose examines the levels of dispositional resilience characteristics in various cultures and how those characteristics affect leader effectiveness. Data analysis is conducted following a review of four studies are performed with three studies having investigated the relationship of dispositional resilience on practitioner performance and stress levels. These studies reveal the Dispositional Resilience Scale (DRS) as a valid and reliable instrument for measuring individual dispositional resilience and the GLOBE Study as accurate research for differentiating cultures. Research, conducted using the One-Way ANOVA technique, determined a statistically significant difference of Confucian country cluster students compared with Latin American and Latin European country cluster students. Implications for future research are also discussed.

TRACK B

***ENGINEERING AND TECHNOLOGY, COMPUTER, BASICS
AND APPLIED SCIENCES***

Improve Quality and Efficiency of Textile Process using Data-driven Machine Learning in Industry 4.0

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Keywords: Machine Learning, Industry 4.0, Cyber-Physical System, Process Improvement.

The capabilities of self-awareness, self-prediction and self-maintenance are important for textile factory in Industry 4.0. One of the most important issue is to intellectualize the way of setting operation parameters as the cyber-physical system (CPS), instead of using traditional trial and error method. To achieve these goals, this paper focus on the relationship between key operation parameter and defect for machine learning to design an operation parameters recommender system (OPRS) in the textile industry. From the perspective of data science, this paper integrates historic manufacturing process data such as machine operation parameters from warping, sizing, beaming and weaving process, and management experience data such as textile inspection results from quality control section. Then, the regression models are applied to predict the textile operation parameters. This research also use the classification models to predict quality of textile. Based on the ten-fold cross-validation testing, experimental results show that our model can achieve 90.8% accuracy on quality level prediction and the best regression model for predicting weaving operation parameters can reduce the mean square error (MSE) to 0.01%. By combining the above two models, proposed OPRS can provide a completed analysis data of operation parameters. It provides good performance when comparing with previous stochastic methods. As the proposed OPRS can support technician setting operation parameters more precisely even for a new type of yarn, it can help to fix the tech skills gap in the textile manufacturing process.

A Semantic web service retrieval approach that combines Semantic matching with Quality of service matching

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Keywords: Semantic Web Service, Quality of Service, Web Service Retrieval.

Web services have been utilized in many sectors such as educational, business, and government sectors. Examples are the tax information system of the Bureau of Internal Revenue and any kind of utility payment system and student achievement report system. Today, there are a large number of various web services on the Internet, creating a difficulty in performing search and a problem of selection. For this reason, the author proposes a new web service search system that exploits the information structure of OWLS documents which consists of information from service history class, service model class, and basic service class. This information is used to construct indexes and their individual weights which are used to compare the level of similarity between a semantic query from a user and each web service by a vector space model. Then, the result is used in a web service selection procedure based on a formal concept analysis. A web service is selected through the structure of a concept lattice of Qos consisting of service availability and response time. Experimental results show that this proposed system provided an average accuracy of 71.9%. Moreover, it can provide alternative web services that are closely related to the query in order for the user to have flexibility in utilizing the search results.

Optimization of Characteristics on Specimen Surface during Fire

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Keywords: Pyrolysis; optimization, Swarm particle, Heat Transfer.

We predicted the fire related characteristics on the solid material surface against the heat flux from the cone heater. The surface temperature was calculated using the ignition time and mass loss rate obtained from the experiment. The emissivity, convective heat transfer coefficient, conductivity and flame heat flux of the surface, which are surface characteristics, were obtained by repulsive particle optimization. The fitness was calculated by comparing the surface temperature measured by the experiment with the surface temperature obtained by using the optimization parameters. The fire related characteristics on the solid material surface were obtained for various woods.

UP COMING EVENTS

You can find the details regarding our upcoming events by following below:

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