

PROCEEDINGS

SETAS-2019

**2nd International Conference on Science
Management, Engineering Technology
and Applied Sciences**

Venue: Hotel MyStays Shin-Osaka Conference Center, Japan

Osaka, Japan

Date: February 16-17, 2019



CONFERENCE BOOK OF ABSTRACT PROCEEDINGS

Consortium-ET

Consortium of Engineering & Technology



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Book of Abstracts Proceedings

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Proceedings of the 2nd International Conference on Science Management, Engineering Technology and Applied Sciences (SETAS)

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***2nd International Conference on Science Management,
Engineering Technology and Applied Sciences (SETAS)***

Venue: Hotel MyStays Shin-Osaka Conference Center, Japan

Conference Theme: Forum for enhancement of research and developmental activities through networking and sharing ideas.



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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



CONFERENCE AGENDA

DATE: February 16-17, 2019

LOCATION: Hotel MyStays Shin-Osaka Conference Center, Japan

Event Title: 2nd International Conference on Science Management

Engineering Technology and Applied Sciences SETAS-2019

Start Time

- 09:00 am - 09:30 am: Registration & Kit Distribution
- 09:30 am - 09:40 am: Introduction of Participants
- 09:40 am - 09:50 am: Inauguration and Opening address
- 09:50 am - 10:00 am: Grand Networking Session

Tea/Coffee Break (10:00 am - 10:30 am)



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10:30 am - 12:00 pm: First Presentation Session

Room 1

Track A: Engineering, Technology & Applied Sciences

Presenter Name	Manuscript Title	Paper ID
Dr. Wang Pei Ru	Research on the Application of Sensor Science and Technology to Labor Safety Management in the Construction Industry	SETAS-FEB19-105
Keng-Hao Chang	Effect of Different Information Security Training Methods Based on T-CAT Cup CTF Game	SETAS-FEB19-106
Walaiporn Singkhamfu	The Real-Time Power Monitoring in Building Using Iot Sensing Method and Knowledge Management Approach	SETAS-FEB19-108
Phudinan Singkhamfu	Behavior Pattern from Sensor Network Based On Grid Detection Monitoring Method	SETAS-FEB19-109
Track B: Business, Economics & Management Studies		
Krittaya Sangkasem	Poverty Assessment Using DMSP/OLS Nighttime Light Satellite Imagery at Provincial Level in Thailand	OSA-329-102B

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

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Engineering Technology and Applied Sciences SETAS-2019

Conference Day 02 (February 17, 2019)

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



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TRACK A

ENGINEERING, TECHNOLOGY & APPLIED SCIENCES

Research on the Application of Sensor Science and Technology to Labor Safety Management in the Construction Industry

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Keywords: Construction industry, Site safety management, Wireless Sensor Networks

Taiwan July 2018, the Occupational Safety and Health Administration of the Ministry of Labor published its Annual Reports of Labor Inspection, which stated that the number of deaths from catastrophic or fatal occupational accidents in the construction industry accounted for approximately 45 which was higher than the number of deaths in any other industry. Therefore, the Occupational Safety and Health Administration has urged employers, site directors, and monitoring engineers to implement tasks properly in accordance with standard operating procedures to realize construction safety and health management as well as prevent occupational accidents. This paper presents construct a technology-based on-site safety management platform for construction sites. Wireless sensor building blocks (MorSensor) will develop by the National Chip Implementation Center will develop a construction site safety management platform application (App) in compliance with the Guidelines for Construction Safety and Health Management. With the App, on-site managers can easily observe environmental information related to the construction site without time constraints, manage the entry of personnel, and develop corresponding measures according to relevant data, thereby achieving the primary goal of prioritizing safety

Effect of Different Information Security Training Methods based on T-CAT Cup CTF Game

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Keywords: Information Security, Training Methods, CTF.

The behavior of personnel is one of the most important issues of information security. Education and training is a solution to improve the behavior of personnel. This study mainly discusses different forms of education and training from the perspective of the information security practice competition, and the difference in its effectiveness.

The Real-Time Power Monitoring in Building Using IoT Sensing Method and Knowledge Management Approach

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Keywords: Power Monitor, Real-Time sensor, Knowledge Management

The objective of this research is from over power consumption problem in the organization by combining the concept of IoT sensing method, which provides online data to a website with the KM-specific technologies. Using Knowledge Management (KM) process is the primary approach to work as the knowledge accumulated, and knowledge distribution method to manipulate power usage procedure in the organization according to data from the monitoring system. Data will collect through in and out time of staff compared with power using period. The real-time electricity monitoring system determines data as daily, weekly, and monthly. The system installed into two large offices most occupied rooms and also provided statistically calculated to define the hourly energy consumption. The statistical result of the monitoring system is used to one of the factors to create resource planning which is the one of KM process by providing a conceptualized platform for ideas of working without over power consumption limit in the workplace. The result is also valuable to the further analyzation of office working hour for each department in the organization. The study shows the efferent data illustration by using the online platform to be one of driving factor for the working activity development which controlled by KM process to overcome one of the specific problems.

Behavior Pattern from Sensor Network Based on Grid Detection Monitoring Method

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Keywords: Habit monitoring, Sensor network, Sensor grid, IoT, Scholastic data, Captive environment

Gathering subject behavior activity pattern in particular closed area is a challenging task in term of sensor networking design. This study aims to deploy the sensor network in an animal cage, which is focusing on feeding, sleeping, and excreting habit. Every single grid is installed with a PIR sensor for detecting an activity signal in the detection perimeter. The PIR sensor worked as a trigger reporting on an activity when any animal movement was detected in each area. During the observation, the data was collected from the animals cage using the method, which they were immediately uploaded to the log server using HTTP get request. More than three months of monitoring data were used in this study. The data analysis algorithm based on scholastic data model in order to find the behavior pattern of the animal. The simulation results show that between captured sequent and result pattern were dependent on each other, is mean that the resulting pattern is related to real animal habits during the monitoring period. This method is aimed to overcome the complications with traditional automate animal monitoring technique socialize for the captive environment. Also, the method can be able to adapt to the other domain of monitoring such as monitoring office work habit to the monitor working pattern of the worker in an organization, from there working period.



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TRACK B

BUSINESS, ECONOMICS & MANAGEMENT STUDIES

Poverty Assessment Using DMSP/OLS Nighttime Light Satellite Imagery at Provincial Level in Thailand

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Keywords: Poverty; DMSP/OLS, Nighttime light, Provincial level, Principal component analysis, PCA, Poverty index, Spatial statistical.

Poverty is an internationally conventional phenomenon, including the case of Thailand. Poverty is also a multi-dimensional problem, influenced by a combination of socio-economical and geographical factors. Therefore, the comprehensive and accurate assessments of poverty are essential. However, the household survey data tends to generally be infrequent and requires substantial collection costs. Hence, the nighttime light density captured by satellites is one of alternative sources of data representing a good proxy for socio-economic conditions. This study constructed the Integrated Poverty Index (IPI) at provincial level in Thailand using Principal Component Analysis (PCA), and verified the statistical relationship between the nighttime average light index (ALI) and IPI. The results show that this relationship has a statistical significance, affirming that the nighttime light data can be used as a proxy for socio-economic conditions in Thailand. Moreover, applying ALI to the spatial statistical analyses indicated the spatio-temporal patterns of poverty clusters in Thailand, especially among rural provinces. With the public accessibility and the timely availability of nighttime-light data, these outcomes suggest the potential application of using ALI and spatial statistical analyses as the alternative data and methods for both academic research and policy formulation.

UP COMING EVENTS

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

<http://consortium-et.com/upcoming-events/>

MISSION

To disseminate knowledge and help scholars, practitioners and administrators to promote the high quality research.

