Book of Abstracts Proceeding

2nd International Conference on Information Technology,
Design, Network and Engineering
ITDN-2019
Bangkok, Thailand
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ITDN-2019

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“2nd International Conference on Information Technology, Design, Network and Engineering”

Bangkok, Thailand

Venue: Novotel Bangkok Ploenchit Sukhumvit, Thailand

ORGANIZING COMMITTEE

1. Mr. Metin
   
   Conference Coordinator

2. Mr. Eser. A
   
   Conference Coordinator

3. Mr. Ibrahim Dirik
   
   Conference Coordinator
CONFERENCE CHAIR MESSAGE

Dr. Samuel. A

“2nd International Conference on Information Technology, Design, Network and Engineering” serves as a platform that aims to help the scholarly community across nations to explore the critical role of multidisciplinary innovations for sustainability and growth of human societies. This conference provides an opportunity to the academicians, practitioners, scientists, and scholars from across various disciplines to discuss avenues for interdisciplinary innovations and identify effective ways to address the challenges faced by our societies globally. The research ideas and studies that we received for this conference are very promising, unique, and impactful. I believe these studies have the potential to address key challenges in various sub-domains of social sciences and applied sciences.

I am thankful to our honorable scientific and review committee for spending much of their time in reviewing the papers for this event. I am also thankful to all the participants for being here with us to create an environment of knowledge sharing and learning. We, the scholars of this world, belong to the elite educated class of this society and we owe a lot to return to this society. Let’s break all the discriminating barriers and get free from all minor affiliations. Let’s contribute even a little or single step for betterment of society and welfare of humanity to bring prosperity, peace and harmony in this world. Stay blessed.

Thank you.

Dr. Samuel. A
Conference Chair
Email: samuel@aetleducation.com
AETL-2019
## Conference Schedule

**DAY 01 Thursday (March 21, 2019)**

**Venue: Room 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09:00 am – 09:15 am</td>
<td>Welcome Reception &amp; Registration</td>
</tr>
<tr>
<td>09:15 am – 09:20 am</td>
<td>Opening Ceremony</td>
</tr>
<tr>
<td>09:20 am – 09:30 am</td>
<td>Welcome Remarks – Academy of Engineering Technology Leadership</td>
</tr>
<tr>
<td>09:30 am – 09:40 am</td>
<td>Introduction of Participants</td>
</tr>
<tr>
<td>09:40 am – 09:50 am</td>
<td>Group Photo Session</td>
</tr>
<tr>
<td>09:50 am – 10:00 am</td>
<td>Grand Networking Session and Tea Break</td>
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### DAY 01 Thursday (March 21, 2019)  
**Session 1 (10:00 am – 11:15 am)**  
**Track A: Engineering & Technology, Computer, Basic & Applied Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Presenter</th>
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</thead>
<tbody>
<tr>
<td>ITDN-MAR-102</td>
<td>Internet of Everything and Internet of Nano Things: Application of Nano Technology for Built Environment</td>
<td>Srinivas Jangirala</td>
</tr>
<tr>
<td>ITDN-MAR-105</td>
<td>Design of Emergency Vehicle Route Guidance System using Crowd Sourcing Technology</td>
<td>Park Jin Sue</td>
</tr>
</tbody>
</table>

**Track B: Business, Economics, Social Sciences and Humanities**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>EMSS-MARCH-102</td>
<td>The Role of Work Alienation on the Effect of Workplace Incivility on Turnover Intention</td>
<td>Hakan TURGUT</td>
</tr>
<tr>
<td>EMSS-MARCH-106</td>
<td>Foreign vs. Domestic: Variation of Aggregate Short Selling in Korea</td>
<td>Kuan-Hui Lee</td>
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<tr>
<td>SBEMW2-039-ANI101</td>
<td>Benefits of Foreign Language Skills in Foreign Businesses in Thailand</td>
<td>Tongtong Ketngam</td>
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<tr>
<td>EMSS-MARCH-107</td>
<td>The Importance of Festivals in Destination Preferences of Consumers: The Case of Altınköy</td>
<td>Mete Sezgin</td>
</tr>
</tbody>
</table>

**Lunch Break (11:15 am – 12:00 pm)**  
**Closing Ceremony**
List of Conference Attendees

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

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Official ID</th>
<th>Name</th>
<th>Affiliation Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>BAN-339-101MA</td>
<td>Dr Patrick COLONNA</td>
<td>French Society of Digestive Endoscopy (SFED) and of the French National Society of Coloproctology (SNFCP)</td>
</tr>
</tbody>
</table>
DAY 02 FRIDAY (MARCH 22, 2019)

CITY TOUR AND SHOPPING DAY

ALL RESPECTIVE GUESTS ARE FREE TO CONDUCT THEIR OWN SIGHTSEEING AND TOUR. THE SECOND DAY OF THE EVENT IS RESERVED FOR THIS MEMORABLE PURPOSE.
TRACK A: ENGINEERING & TECHNOLOGY, COMPUTER, BASIC & APPLIED SCIENCES
Implementation of Proprietary Wireless Transmission Protocol with Adaptive Power Controlled Channel Allocation

Chang Hsi Wu¹, Cheng-You Hong², Hung-Kai Tseng³, Pin-Chi Lu⁴, Her-Lih Chiueh⁵

Abstract In this report, we developed a proprietary wireless transmission protocol for solving the interference problems. There are two tasks involved in the protocol. One of them involved with the adaptive radiation power control according to the received RSSI signal strength. The other one, based on the information of SNR of various RF channels, use the frequency hopping techniques to allocate RF channels adaptively. The ARM Cortex™-M4 processor, STM32F429ZIT, with clock frequency up to 180MHz is used for algorithm implementation. Both ADI’s FSK/GFSK ADF7242 zero IF transceiver (ADF7242) at 2.4GHz and Avago’s MGA83563 power amplifier (MGA83563) with gain up to 23dB are used for RF implementation.

Keywords: Adaptive Power Control, Adaptive Channel Control, Proprietary Wireless Protocol

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Internet of Everything and Internet of Nano Things: Application of Nano Technology for Built Environment

Srinivas Jangirala¹*, Shashi Kant Srivastava²

Abstract Contrary to the natural environment, it is an artificial built environment that is mostly inhabited by human beings. Due to human inquisitiveness to innovation, the design of built environment was in continuous transition, and recently the pace of transition has become very fast. Every innovation of society influences the design of built space and presently society is facing ever-increasing technological innovation. With the unceasing progress in the pace of technological innovation, the design of built environment is continuously challenged to integrate such innovations. The purpose of this work is to put forward the present development and potential future applications of the IoE to foresee the innovations in the built spaces. The study is aimed to present and envisage the probable future built environment that will be full of the Internet of Things (IoT) and IoE applications. We present a review of relevant literature to illustrate the current applications of IoE in buildings. Furthermore, we bring forth the future possibility of IoE to make changes in existing concepts of architectural spaces. Because of new developments in IoE and IoT, the applications of sensor supported electric and electronic fixtures in a building are gradually increasing.

Keywords: IoT, IoE, Smart Building, IoNT, Nanotechnology, Nanomaterials

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Design of Emergency Vehicle Route Guidance System using Crowd Sourcing Technology

Park, JinSue¹, Ha, Junghan², Kwon, JaeYoung³

Abstract In this study, we propose a system that minimizes the arrival time of emergency vehicles by using crowd sourcing technology for various video resources in the event of a city disaster. Currently, it operates as a priority signaling system linked to the GIS system to guide emergency vehicles to disaster sites. However, the presence of illegal parking vehicles or stuffs in the case of narrow streets or alleys connecting major roads to disaster sites is causing unexpected delays. In order to solve this problem, crowd sourcing of video information (CCTV, black box) existing around the route to the disaster site was transmitted and automatically analysed to design a system that provides accessibility to the site in real time. This system is composed of a technology to select the video device around the dispatch route, a communication technology to transmit the video in real time, a technology to detect whether the emergency car can pass automatically from the transmitted video and the result to link with the real time dynamic guidance system technology. This study is expected to be used for the rapid response to urban disasters under smart city environment.

Keywords: Golden Time, Crowd Sourcing, Emergency Vehicle, CCTV Car Black Box, Smart City

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TRACK B: BUSINESS, ECONOMICS, SOCIAL SCIENCES & HUMANITIES
Role of Work Alienation on the effect of Workplace Incivility on Turnover Intention

Hakan Turgut1*, Ismail Tokmak2*, M. Fikret Ates3

Abstract In terms of social behavior and organizational behavior, individuals working in organizations are supposed to obey minimum rules for respect in the communication they have established with each other and in the behaviors towards each other. Therefore, it is considered that workplace incivility may increase turnover intention which is seen as a negative result regarding workers and organization and may spread among workers with the effect of work alienation. The purpose of this study within the scope is to research what kind of role perception of work alienation has on the effect of workplace incivility on turnover intention. In parallel with this purpose, 450 workers of a company in the province of İzmir active in electric-electronic sector were determined to be the universe of the study. Questionnaire forms prepared for the research were delivered to all the workers by hand. However, 183 questionnaires were returned in the first stage. “Work Alienation Scale” comprised of 8 items and a single dimension developed by Nair and Vohra (2010), “Workplace Incivility Scale” comprised of 7 items and a single dimension developed by Blau and Andersson (2005), “Turnover Intention Scale” comprised of 3 items and a single dimension developed by Mobley et al. (1978) were used in the questionnaire form prepared for data collection. In addition to this, exploratory and confirmatory factor analyses were carried out for validity of scales. Results obtained revealed that scales are valid for the sampling studied. Hierarchic regression analysis was used in the test of descriptive statistics of the data and hypotheses aimed at the relations between the independent and dependent variable of the study and mediation effect. As a result of analyses carried out, it was found that workplace incivility has a meaningful and positive effect on turnover intention. In addition, it was observed in the method with three steps proposed by Baron and Kenny (1986) in order to measure the mediation effect that perception of work alienation has partial mediation effect on the relations between the dependent and independent variable of the study. As a result, it was determined that because they feel uneasy in the workplace where colleagues with higher levels of workplace incivility are majority, turnover intention of some workers increases. It was found that workplace incivility increases both turnover intention directly and work alienation and has effect on turnover intention indirectly. Results of analyses carried out according to data obtained in the first stage of the study are above.

Keywords: Workplace Incivility, Turnover Intention, Work Alienation

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Foreign vs. Domestic: Variation of Aggregate Short Selling in Korea

Kuan-Hui Lee¹*, Shu-Feng Wang²

Abstract We examine the variation of aggregate short-selling by foreigners, individuals, and institutional investors in relation to market return, volatility, and other macroeconomic variables in Korean stock market. Aggregate short-selling has significant seasonal components such as day-of-the week, monthly effect, and holiday effect as well as overall increasing time trend. Foreigners tend to increase their short-selling after short-term strong performance of market, while individual short-sellers show the opposite pattern. We find some evidence that aggregate short selling is affected by market volatility and CDS premium for Korean government bond. The U.S. market condition is also shown to have significant impact on aggregate short-selling by foreign investors and individual investors. Lastly, we find that significant dynamic relation exists for market return and aggregate short-selling.

Keywords: Short-Selling; Foreign Investors; Individual Investors; Contrarian; Momentum; Korean Stock Market

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The Importance of Festivals in Destination Preferences of Consumers: The Case of Altınköy

Mete Sezgin¹*, Seda Ozdemir Akgul², Osman Unuvar³

Abstract  This study aims to reveal the effect of festivals held in Altınköy on tourism preferences of consumers. Within the scope of the research, firstly, consumer preferences, activity tourism and the effects of festivals are discussed theoretically. The area of application is limited to the residents of Altınköy district by taking into consideration the constraints of time, cost and accessibility. In the research, 60 interviewing consumers were interviewed face to face. The data obtained from the study were evaluated with the help of Nvivo 10.0 program by using qualitative research method. As a result of the findings, demographic characteristics of the consumers participating in the festival, travel purposes, perceptions about the festivals held in Altınköy were evaluated and some suggestions were made for the effective implementation of festivals.

Keywords: Consumer Behaviour, Event Tourism, Altınköy

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Benefits of Foreign Language Skills in Foreign Businesses in Thailand

Tongtong Ketngam*

Abstract Foreign language skills in Thailand have become an important key to professional advancement and business operations. Having some fluency in a language other than the employee’s native language improves employee coordination, clientele satisfaction, business operations, and business management. Foreign language proficiency skills of Thai employees in business firms facilitate smoother communication and coordination between local headquarters and offshore subsidiaries. Most employers and owners consider foreign language proficiency skills as assets to their business operations, but surprisingly not all do. This paper focuses on the role and influence of foreign language in five business firms in Rayong Province, Thailand. It concentrates on four foreign languages: English, Chinese, Japanese and Korean. The primary purpose is to assess the benefits of foreign language proficiency to Thai employees in the five selected firms. This paper shows that there is indeed a close relationship between degree of benefit and level of foreign language proficiency. It finds that foreign language skill improves the promotion opportunities, income, prestige and working conditions of Thai employees. Thus, Thai employees in Rayong who have a good command of any of the four foreign languages studied here have more advantages and opportunities, compared to Thai employees who lack such skills.

Keywords: Benefits, Foreign Language Proficiency, Thai Employee, Business Firms, Rayong Province

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