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**April 11-12, 2017  
Sydney, Australia**



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# CONFERENCE PROCEEDINGS

## BOOK OF ABSTRACTS ECBA-2017

International Conference on  
“Engineering & Technology, Computer, Basics & Applied Sciences”  
(ECBA-2017), Sydney, Australia

# **Book of Abstracts Proceeding**

**International Conference on  
“ENGINEERING & TECHNOLOGY, COMPUTER, BASICS & APPLIED SCIENCES”  
(ECBA-2017)  
Sydney, Australia**

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**International Conference on  
“Engineering & Technology, Computer, Basics & Applied Sciences”  
Sydney, Australia**

**Venue: Novotel Sydney Central Sydney, Australia**

**ORGANIZING COMMITTEE**

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## CONFERENCE CHAIR MESSAGE

**Dr. Malika Ait Nasser**

International Conference on “Engineering & Technology, Computer, Basics & Applied Sciences” serves as 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 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 really 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 back to this society. Lets break all the discriminating barriers and get free from all minor affiliations. Lets 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. Malika Ait Nasser**

Conference Chair

Email: [chair2017@academicfora.com](mailto:chair2017@academicfora.com)

ECBA-2017

# CONFERENCE PROGRAM

**DAY 01 Tuesday (April 11, 2017)**

**Welcome Reception & Registration**

**9:00 am - 9:30 am**

**Opening Ceremony (09:00am - 09:30 am)**

**Venue: Room 1**

09:30 am - 9:40 am	Introduction of Participants
09:40 am - 09:50 am	Welcome Remarks - <b>Mr. Metha Shahi</b> - Conference Coordinator Academic Fora
09:50am - 10.00 am	Group Photo Session

**Grand Networking Session and Tea Break (10:00 am - 10:30 am)**



**DAY 01 Tuesday (April 11, 2017)**

**Session 1 (10:30 am 12:00 pm)**

**Venue: Room 1**

**Session Chair: Mr. Leon Yap**

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

SAS-347-101	An Investigation of Thai Student's English Language Writing Difficulties and Their use of Writing Strategies	Poonyapat Boonyarattanasoontorn
SAS-347-104	The Level of Strategic Management Application by Kuwaiti Public Administration Agencies from Employees Perspective	Mohammad Q. Ahmad Al-Qarioti
SAS-347-106	Sharia Garage Sale (SGS), New Concept of used Goods Sharia Transactions	Heti Nur Isnaini

**Track B: Engineering & Technology, Computer, Basics & Applied Sciences**

SAE-347-103	Synthesis of Lignin-Modified Nanoscale Zerovalent Iron Applied to Arsenic Removal	Phoomipat Jungcharoen
SAE-347-104	Optimization of Cutting Geometry Profile for A Compound Die Piercing Punch using Finite Element Analysis	Wael Shaheen
SAE-347-106	Transient Analysis Due to Short Circuit Faults in Wind Hybrid Systems	Farhana UMER

**Lunch Break (12:00pm to 01:00pm)**

**Closing Ceremony**

**DAY 02 Wednesday (April 12, 2017)**

**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,  
BASICS AND APPLIED SCIENCES**

## **Transient Analysis Due to Short Circuit Faults in Wind Hybrid Systems**

**Farhana UMER <sup>1\*</sup>, Nurettin CETINKAYA <sup>2</sup>**

<sup>1,2</sup> School of Electrical & Electronic Engineering, Selcuk University, Turkey

### **Abstract**

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The main aims of this paper are to analyse the short circuit transient behaviour of a grid connected hybrid power system (wind farm) and to offer suggestions for short circuits damages to be less affected. The hybrid power system in which conventional power system is integrated with wind farm is studied. In this research ATP/EMTP software is used for modelling of hybrid system integrated with wind generator and to simulate transient analysis of the 3- short circuit fault (SCF), line to ground fault and effect of fault resistance on conventional system and at Wind farm. The resulting transient over-voltages and currents has been computed & plotted. The effect of Wind farm on conventional power system during faults has also been studied.

**Keywords:** Transient Analysis, Wind Farm, 3-Phase Short Circuit Fault, Fault Resistance, Overcurrent, Overvoltage, Fault Types and ATP/EMTP Software

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## Synthesis of Lignin-Modified Nanoscale Zerovalent Iron Applied to Arsenic Removal

Phoomipat Jungcharoen <sup>1</sup>, Denis O' Carroll <sup>2</sup>, Jin Anotai <sup>3\*</sup>, Tanapon Phenrat <sup>4\*</sup>

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<sup>2</sup> The University of New South Wales, Kensington, Sydney, Australia

<sup>3</sup> King Mongkut's University of Technology Thonburi, Thailand

<sup>4</sup> Naresuan University, Phitsanulok, Thailand

### Abstract

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Nanoscale zerovalent iron (nZVI) plays a significant role on environmental remediation including removal of arsenic from groundwater and drinking water. This study investigates the synthesis and characterization of nZVI derived from lignin containing wastewater from paper and pulp industry. The two resulting nZVI types including lignin-modified nZVI (L-nZVI) and pulp-modified nZVI (P-nZVI), were then used for arsenic removal by comparing with and bare-nZVI (B-nZVI). We found the modified nanoparticles were characterized using TEM, SEM-EDX, and BET. The specific surface areas of P-nZVI (49.3602 m<sup>2</sup>/g) was much greater than L-nZVI (7.6126m<sup>2</sup>/g) presumably due to a lot of polymers. B-nZVI, L-nZVI, and P-nZVI could remove 1 mg/L of arsenic with the removal efficiency of 88.79, 88.66%, and 90.79%, respectively at an initial pH of 7. The enhanced arsenic removal efficiency by P-nZVI was attributed to the highest specific surface area.

**Keywords:** Lignin, Pulp and Paper Wastewater, Nanoscale Zerovalent Iron (nZVI), Drinking Water, Arsenic

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## Optimization of Cutting Geometry Profile for A Compound Die Piercing Punch using Finite Element Analysis

Wael Shaheen <sup>1\*</sup>, Sangarapillai Kanapathipillai <sup>2</sup>, Philip Mathew <sup>3</sup>, Gangadhara Prusty <sup>4</sup>  
<sup>1, 2, 3, 4</sup> The University of New South Wales, Sydney, Australia

Abstract

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This paper investigates the optimum cutting geometry profile of the piercing punch of a compound die using finite element technique. The study is based on several cutting face shapes of the punch such as flat, chamfer, dome outside and dome inside. A number of dependent and independent parameters including constant clearance, cutting velocity and sheet metal type and thickness have been investigated. The variables which influence the die performance and product quality have been studied. The paper covers a comprehensive design of the compound die with analysis. The die can be utilized for producing high quality Exhaust Gas Recirculation (EGR) blanking plate based on the optimum piercing punch with selected parameters. A couple of models have been used with various punching tools. The main aim of the research is to study the contribution of several parameters to obtain an optimum cutting tool based on three criterions; clean cutting surface under minimum burr height, lowest stress at the tool cutting edge and high performance of the compound die without failure. The study is intended to improve the efficiency of compound dies and increase in die life and decrease in manufacturing cost.

**Keywords:** Finite Element Analysis, Punch, Compound Die

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**TRACK B: BUSINESS, ECONOMICS, SOCIAL SCIENCES &  
HUMANITIES**

## **Sharia Garage Sale (SGS), New Concept of used Goods Sharia Transactions**

**Heti Nur Isnaini<sup>1\*</sup>, Muhilal Ashar<sup>2</sup>, Rinaldi Arman<sup>3</sup>**

<sup>1, 2, 3</sup> Universitas Islam Indonesia, Yogyakarta, Indonesia

### Abstract

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“Sharia Garage Sale” is a concept of transaction services of used goods that can be applied in society by using Sharia transactions concept. sharia garage sale contains transaction murabahah, mudharabah, musyarakah, and wakalah. Before applying the SGS concept performed research with survey and questionnaire online toward the thrift shop and consumers of thrift stores in Yogyakarta region, Indonesia. The data which has obtained were analyzed using descriptive qualitative method and this research can be known about the type of goods Used goods from society and transacted in thrift stores. The owner of thrift store and society response to use transactions concept of SGS in their Used goods services. The results of these research mention that thrift stores agree to apply the SGS system and consumers also give a response to use Sharia Garage Sale system at thrift stores. In implementation of SGS system there have rules about the types of agreement also provide the information of agreement, it can be an options in transaction for trader to consumers of Used goods. In application the concept of Sharia Garage Sale will be applied by conducting cooperation with related parties such as community, academy and practitioners that concern of the Islamic Sharia principle.

**Keywords:** Used Goods, Sharia Transactions, Sharia Garage Sales

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## **An Investigation of Thai Student's English Language Writing Difficulties and Their use of Writing Strategies**

**Poonyapat Boonyarattanasoontorn \***  
Bangkok University, Thailand

Abstract

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English language writing is seen as one of the most difficult skills for undergraduate students. In composing a piece of writing, students usually face the problem of using grammar and lexical elements. There is a solution to solve such great difficulties among learners, which are called writing strategies. The techniques of writing strategies are indispensable as a key to facilitate learners in the assigned writing tasks and are possible to diminish the writing problems faced by learners. The study aims to investigate the difficulties in English language writing and writing strategies among undergraduate students in Thailand. Data was collected from 157 students taking an intermediate English course by using a five-point rating scale questionnaire. The results revealed that the students had writing problems at high level, and they rated grammar as the most. It was also found that cognitive strategies, particularly resourcing strategies, were frequently employed by the participants. However, no relationship was found between the students writing ability and their writing strategy usage.

**Keywords:** Writing Difficulties, Writing Strategies, Undergraduate Students, English Teaching

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Email: [poonyapatb@hotmail.com](mailto:poonyapatb@hotmail.com)

## **The Level of Strategic Management Application by Kuwaiti Public Administration Agencies from Employee's Perspective**

**Mohammad Q. Ahmad Al-Qarioti \***

College of Administrative Sciences- Kuwait University, Kuwait

### Abstract

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This study examines strategic management (SM) in Kuwaiti public administration agencies, (ministries, government authorities/institutions, and state-owned companies) and obstacles they face from employees perspectives. The study sample was a convenient stratified sample consisted of (381) employees. Study results showed that (69.3%) of government agencies had strategic plans while (30.7%) did not have. Moreover, study results showed that strategy formulation was a first priority, while strategy implementation and strategy evaluation processes were respectively second and third priorities. With regard to obstacles, which government agencies faced in adopting strategic management, results showed that lack of leadership was the prime obstacle. Moreover, study results showed strong positive significant correlations and variations between SM and demographic characteristics, and no significant variations between obstacles of SM and demographic characteristics.

**Keywords:** Strategic Management, Public Administration, Kuwait, Administrative Reform, Strategic Planning

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excellence through  
networking platform.**

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