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CONFERENCE PROCEEDINGS

BOOK OF ABSTRACTS ECBA-2018

International Conference on
“Engineering & Technology, Computer, Basic & Applied
Sciences”
(ECBA-2018), Taipei Taiwan



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Book of Abstracts Proceeding

International Conference on
“Engineering & Technology, Computer, Basic & Applied
Sciences”
(ECBA-2018)

Taipei Taiwan

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**International Conference on
“Engineering & Technology, Computer, Basic &
Applied Sciences”**

Taipei Taiwan

Venue: The Howard Plaza Hotel Taipei

ORGANIZING COMMITTEE

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CONFERENCE CHAIR MESSAGE

Dr. Malika Ait Nasser

International Conference on “Engineering & Technology, Computer, Basic & 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. 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. Malika Ait Nasser

Conference Chair

Email: chair2018@academicfora.com

ECBA-2018

Conference Schedule

DAY 01 Thursday (July 05, 2018)

Venue: Room 1

08:00 am – 08:10 am	Welcome Reception & Registration
08:10 am – 08:20 am	Opening Ceremony
08:20 am – 08:30 am	Welcome Remarks – Conference Coordinator Academic Fora
08:30 am – 08:40 am	Introduction of Participants
08:40 am – 08:50 am	Group Photo Session
08:50am – 09:00 am	Grand Networking Session and Tea Break

DAY 01 Thursday (July 05, 2018)
Session 1 (09:00 am – 11:00 am)

Venue: Room 1

Track A: Engineering and Technology Study

TKE-178-101	Sn-Te-based composite anodes for high-performance lithium ion storage	IL TAE KIM
TPE-178-102	LQ-PI Control for Three-level of Vienna Rectifier	Ho-Joon Lee
ETASE-JULY-TW102	Functional Electrical Stimulation (FES): Historical and Beneficial Perspective	Matthew J. Taylor
TKE-178-104	Analysis of Term Weighting Methods for Automatic Scoring of Indonesian Essay by K-Nearest Neighbor	Ani Rahmani
TKE-178-105	Melanoma Detection Using Gray Level Co-Occurance Matrix and Artificial Neural Network	Dr. Nurjannah Syakrani

(Closing Ceremony)

DAY 02 Friday (July 06, 2018)

City History and Discussion Session

The purpose of the second day conference will be for the participants to learn more about the local history and culture, or get to know the other participants better.

Therefore,

Option 1: City History and Culture Tour: All the participants are free to organize your own group tours together and get to know each other better.

Option 2: Discussion Session: All the participants are free to make group discussions on behalf of your same research interest and get a chance to cooperate in the future Research.

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

Sn-Te-based composite anodes for high-performance lithium ion storage

Il Tae Kim¹, Seung Yeon Son², Doo Soo Kim³

Abstract Rechargeable lithium-ion batteries (LIBs) have attracted much attention as one of effective energy storage systems due to high energy density. Graphitic carbon, known as commercial anode materials, cannot meet the demand of current industry for longer-lasting electrical device and hybrid/full electric vehicles, leading to the development of advanced anode materials. Sn has been evaluated as an alternative of graphitic carbon owing to their high theoretical capacity (993 mAh/g); however, it undergoes a huge volume change during the charge-discharge process, resulting in severe capacity fades. To overcome these problems, we attempt the synthesis of Sn-Te-based nanocomposites including conductive TiC and amorphous carbon matrices, which are prepared by applying the pre-heating step before the high-energy ball milling (HEBM) process. The different morphological characteristics and electrochemical performances are discussed depending on the TiC contents in composites, where TiC/C hybrid matrix acts as a buffering matrix and accommodates the volume change during cycling, resulting in the improvement of electrochemical performances.

Keywords: Tin-telluride, Titanium carbide, Lithium ion batteries

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LQ-PI Control for Three-level of Vienna Rectifier

Chang-Hyun Kim^{1*}, Sung-Keun Oh², Ho-Joon Lee³

Abstract In this paper, we propose linear-quadratic proportional integral (LQ-PI) controller for voltage-current control of three-level Vienna rectifier. The Vienna rectifier approach with 3-phase power factor has been being applied widely in industry for their high efficiency and unity power factor operation. Recently, Vienna rectifier is imbedded to fast EV chargers and electric power converter. The control of Vienna rectifier is more important than conventional AC to DC converters because there exist many components and switching states in power converter. The optimal controller with linear-quadratic performance index is applied to Vienna rectifier such that the general PI controller is improved in order to consider time domain specifications.

Keywords: Linear-Quadratic Optimal Control, PI Control, Voltage-Current Control, Three-level Vienna Rectifier

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Functional Electrical Stimulation (Fes): Historical And Beneficial Perspective

Matthew J. Taylor^{1*}, Ché Fornusek², Andrew J. Ruys³

Abstract Within the sphere of rehabilitation engineering there are several technologies being developed for persons with paralysis, such as environmental sensors [1], interactive games and robotic exoskeletons. Despite these new upcoming technologies, also available but sometimes unknown are Functional Electrical Stimulation (FES) technologies. FES is the activation of nerves or muscles of paralyzed individuals using electrical stimulation. Individuals may perform exercise assisted by FES, which involves application of high voltage electrical pulses by either surface or implantable electrodes. Over the past 50 years FES technology has developed but these developments have not been translated to the community use. Thus, FES is not being used to its full potential. While investigations surrounding such issues are under way by our group [2], insights into various issues may be taken from the current literature. A general search of the literature was performed, then divided into relevant sub-themes, discussed in this work. Firstly, we put forward a historical overview of FES technology. We draw from the literature some early examples of FES technology. Then we illustrate different types of FES-cycling systems grouped into various categories derived from literature. Finally, we conclude by discussing some of the benefits and drawbacks of FES as suggested by the literature. It is envisaged that this work will stimulate discussion in the wider engineering community of some possible areas for research, paving way for future innovation in FES rehabilitation technologies.

Keywords: Rehabilitation Engineering, Electrical Stimulation, General Review.

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Analysis of Term Weighting Methods for Automatic Scoring of Indonesian Essay by K-Nearest Neighbor

Ani Rahmani^{1*}, Harut Digdaya Muttaqin²

Abstract Automatic essay scoring is one of an alternative solution for solving problems in essay scoring manually which are not reliable, less objective, and spent a lot of time. In the automatic essay scoring, an essay is compared to another labeled essay within training data. Each essay is transformed into a vector containing the weight of each term to calculate similarity. This study compares the accuracy of 2 kinds of term, which are unsupervised term weighting TF-IDF and supervised term weighting TF-Chi2 TF-RF and TF-RF in Indonesian essay. A machine learning algorithm used in this research is K-Nearest Neighbor. The experiment is conducted by applying k-fold cross validation method with value of k, which are between 2 to10. The used data are the essays of three subjects of a high school in Bandung-Indonesia, those are Bahasa Indonesia, History, and Economy. The result in 15 scenarios show that supervised term weighting method produces better accuracy than unsupervised term weighting; TF-Chi2 became the term weighting method with the best accuracy in 8 scenarios and TF-RF in 7 scenarios. In other hand, TF-RF method has more stable performance than TF-Chi2 proven in other scenarios. TF-Chi2 becomes the term weighting method with the lowest accuracy in 5 scenarios while TF-RF is only in 1 scenario. Therefore, the recommended term weighting method for automated essay scoring by K-Nearest Neighbor is the TF-RF method with k of KNN value is 3.

Keywords: k-nearest neighbor, supervised term weighting, TF-Chi2, TF-RF, unsupervised term weighting, TF-IDF

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Melanoma Detection Using Gray Level Co-Occurance Matrix and Artificial Neural Network

Dr. Nurjannah Syakrani¹, Rheza Ghivary S.²

Abstract Image feature extraction is a step of extracting object information in an image to recognize or distinguish it from other objects. The method used for feature extraction is the Gray Level Co-Occurance Matrix (GLCM). This research is related to the calculation of features or information from the image of melanoma cancer and non-melanoma using GLCM based on variation of gray level, which are 4, 8, 16, 32, and 64 as well as angles of GLCM orientation consist of 4 and 8-way. The used features are angular second moment, contrast, correlation, entropy, inverse different moment and variance. Then, the feature values are used as input parameters to classify melanoma cancer by utilizing artificial neural network (ANN). This experiment is conducted by using 45 data set of images from www.skinvision.com. Generally, All of experiment types results have accuracy of melanoma and non-melanoma classification by ANN more than 93%. Particularly, by inputting 6 parameters from GLCM feature extraction using (1) 4th degree of gray level and 4 -way orientation angles, (2) 16th degree gray level and 8-way orientation angles obtain the accuracy of ANN classification by 100%.

Keywords: Feature Extraction, Gray Level Co-Occurance Matrix, Gray Level, Orientation Angel, Artificial Neural Network, Melonoma Cancer.

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FUTURE EVENTS

You can find the Details regarding our future events by following below:

Business, Economics, Social Science & Humanities (BESSH) Conferences:

<http://academicfora.com/buisness-conference-home/>

Engineering & Technology, Computer, Basic & Applied Science

<http://academicfora.com/engineering-conference-home/>

Medical, Medicine & Health Science

<http://academicfora.com/medical-conference-home/>

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Vision

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networking Platform.**

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