ICESAT-JULY-2018

IRNEST International Conference on Engineering and Technology, Smart Materials, Applied Sciences & Telecommunications

Shanghai, China

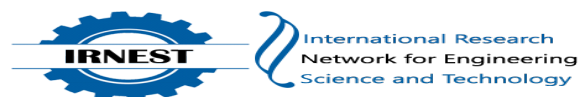**Date: July 28-29, 2018**

CONFERENCE BOOK OF ABSTRACT PROCEEDINGS

IRNEST-2018

International Research Network for Engineering Science and Technology

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Book of Abstracts Proceedings

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IRNEST International Conference on Engineering and Technology, Smart Materials, Applied Sciences & Telecommunications (ICESAT-JULY-2018)

Venue: Leisure Inn Hotel Le Shu Shanghai, China

Conference Theme: Providing Platform for enhancement of research and developmental activities through networking.

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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

Prof. Lin GAO

"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.
Prof. Lin GAO
Conference Chair
Email: lin_gao@irnest.org

Start Time

09:00 am - 09:10 am: Registration & Kit Distribution
09:10 am - 09:20 am: Introduction of Participants
09:20 am - 09:30 am: Inauguration and Opening address
09:30 am - 09:40 am: Grand Networking Session

Tea/Coffee Break (09:40 am -10:00 am)

CONFERENCE AGENDA

DATE: July 28-29, 2018
LOCATION: Leisure Inn Hotel Le Shu Shanghai, China
DAY: Saturday-Sunday
EVENT TITLE: IIRNEST International Conference on Engineering and Technology, Smart Materials, Applied Sciences & Telecommunications (ICESAT-JULY-2018)

Session: 01
10:00 am - 11:00 am: Presentation Session
Track A: Business, Economics, Social Sciences and Humanities

Presenter Name	Manuscript Title	Paper ID
I-Cheng Yeh	Building multi-factor stock selection models with experimental designs and multi-variable polynomial regression analysis Empirical evidences from Taiwan stock market	MCMS-JULY-109
Track B: Engineering Technology & Applied Sciences		
Hyun Kyoung Yang	Novel solar marine lantern composed of single COB LED chip	ICESAT-JULY18-102
Chung Yuan Yang	Applying Kmeans Clustering Algorithm and MSVM for Wind Power Forecasting	ICESAT-JULY18-103

Lunch Break & Closing Ceremony (11:00 am - 12:00 pm)

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: IRDSSH-078-ANI102A
Yong Keun YOO
Korea University Seoul, South Korea

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Materials, Applied Sciences & Telecommunications (ICESAT-JULY-2018)

Conference Day 02 (July 29, 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

Building Multi-Factor Stock Selection Models with Experimental Designs and Multi-Variable Polynomial Regression Analysis Empirical Evidences from Taiwan Stock Market

[1*]I-Cheng Yeh,[2]Yi-Cheng Liu
[1,2]Department of Civil engineering of Tamkang University, Taiwan
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Some literature adopted a weighted-scoring approach to construct the multi-factor stock selection model. However, this approach leads to two shortcomings. First, it cannot effectively identify the connection between the weights of stock-picking concepts and portfolio performances. Second, it cannot provide the optimal combination of weights of stock-picking concepts to meet various investors preferences. This paper aims to employ a mixture experimental design to collect the weights of stock-picking concepts and portfolio performance data, as well as to build up performance prediction models based on the weights of stock-picking concepts with multi-variable polynomial regression analysis. Furthermore, these performance prediction models and optimization techniques are employed to discover the optimal combination of weights of stock-picking concepts. The samples consist of all stocks listed in the Taiwan stock market. The 1997-2008 period and the 2009-2015 period are employed as the modeling period and the testing period. Empirical evidences showed that (1) our methodology is robust in predicting performance accurately, and can discover significant interactions between the weights of stock-picking concepts. (2) It can discover the optimal combination of weight of stock-picking concepts which can form stock portfolios with the best possible performances to meet investors preferences. Thus, our methodology is able to resolve the two shortcomings of classical weighted-scoring approach.

TRACK B

ENGINEERING TECHNOLOGY & APPLIED SCIENCES

Novel solar marine lantern composed of single COB LED chip

[1*]Hyun Kyoung Yang, [2]Jung Sik Joo, [3]Young Jo Seo
[1,2,3]Department of LED Convergence Engineerin, Pukyong National
University-Busan, South Korea
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Keywords: Marine Lantern, Led, Solar, COB, Optical Design

Marine lanterns are installed in light buoys for safe navigation of ships. It is difficult to use conventional marine lanterns due to limited space of coastal area and geographical conditions hard to supply power. Recently, solar marine lanterns composed of solar cells and batteries have been proposed as a candidate of alternative marine laterns which are placed in coastal areas that do not require a large range of light (1 5 NM). As current solar marine lantern purpose to light 360 degree, a number of LEDs are installed that causes low energy efficiency. To improve energy consumption and lighting efficiency of marine lanterns, we developed a novel optical design which requires a single LED chip. This optical design replace conventional Fresnel lens of a reflector in solar marine lanterns with high energy efficiency and enhanced lighting. Illumination optics design program (LightTools) was used for simulation the light distribution. In the simulation, we used COB type LED. The LED chips with 1W was calculated as 32 cd in the simulation that satisfied the average horizontal brightness of the 3NM.

Applying Kmeans Clustering Algorithm and MSVM for Wind Power Forecasting

[1*]Chung Yuan Yang, [2]Whei-Min Lin , [3]Pei-Yun Li
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Keywords: Clustering AnalysisSupport Vector MachineParticle Swarm Optimization-Wind PredictionWind Power Forecasting

In this paper, based on the historical marine weather and corresponding wind power output data, a short-term wind power forecasting model for future one day is presented. Due to lots of history data of marine weather data and wind power, we divide data into clusters using K-means clustering algorithm to get the meaningful training data so as to reduce the number of modeling data and improve the efficiency of computing. Besides, based on the principle of Support Vector Machine (SVM), the regression model is constructed. We have been carried out wind speed forecasting for one hour and one day and with the correspondence between marine wind speed and the corresponding wind power regression model, the indirect wind power forecasting model is realized. In addition, proper parameter settings of support vector machine (SVM) is important to its efficiency and accuracy .In this paper, we enhance particle swarm optimization with time varying acceleration coefficients (PSO-TVAC) to perform the parameter optimization for SVM, which not only improve the forecast model availability , but also improve the forecasting accuracy . Wind power is a key development for the purpose of the global sustainability trends in renewable energy. However, influenced by factors of geography, circumstance and climates, the wind power has the characteristics of intermittency, volatility and uncontrollability. To ensure the reliable operation of a power system which is significantly fed by wind power, therefore, the study of wind power forecasting technology for assisting power system operation is becoming important.

UP COMING EVENTS

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

http://irnest.org/upcoming-conferences/

VISION

IRNEST is a dedicated platform to promote and encourage the latest advancements in Science, Engineering Technology & Applied Sciences for the benefit of human development through highly significant research contributions, conferences, and other professional, educational and mentoring activities.