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The 6th International Conference on Computational Intelligence and Software Engineering (CiSE 2014) & the 3rd International Conference on Signal and Image Processing (CSIP 2014)

Schedule

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Location: Lobby, Beijing Yanshan Hotel

Time: July 11, 14:00 - 17:00

Location: 2nd floor, Beijing Yanshan Hotel

Time: July 12, 08:30 - 12:00

Oral Session (July 12, 2014)

Location: Plum Blossom Room (沁梅厅), 2nd floor, Beijing Yanshan Hotel

Time: 08:30-12:00 (**Coffee Break** 10:30-10:45)

- **Invited Speech:** Adaptive Mobile Applications to Dynamic Context
  Speaker: Prof. Mao Zheng, University of Wisconsin-La Crosse, USA
  Time: 08:30-09:00

Lunch

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 12:00-13:00

Dinner

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 18:00-19:00

One-day Tour (at own expense)

Location: The Great Wall and Ming Tombs (Thirteen Tombs of Ming Dynasty)

Time: July 13, 2014

Invited Speech

Invited Speech: Adaptive Mobile Applications to Dynamic Context

Speaker: Dr. Mao Zheng, University of Wisconsin - La Crosse, USA
Time: 08:30-09:00, Saturday Morning, July 12, 2014
Location: Plum Blossom Room (沁梅厅), 2nd floor, Beijing Yanshan Hotel

Abstract
Context-aware computing is a mobile computing paradigm in which applications can discover and take advantage of contextual information, such as user location, time of the day, nearby people and devices, and user activity. This paper intends to study the context-awareness in depth and demonstrate the usefulness of this new technology through two mobile applications that are adaptive to dynamic context.

Oral Sessions

Oral Session

Session Chair: Prof. Yong Wei, University of North Georgia

Invited Speech: Prof. Mao Zheng, University of Wisconsin-La Crosse (08:30-09:00)

Plum Blossom Room (沁梅厅), 2nd floor Saturday, July 12

ID	Paper Title	Speaker	Affiliation	Time
50039	Tree-Based Revocation for Certificateless Authentication in Vehicular Ad-hoc Networks	Pino Caballero-Gil	University of La Laguna	08:30-12:00
50041	Composition of Specification Modules: recent developments	Razvan Diaconescu	Institute of Mathematics of the Romanian Academy	08:30-12:00
50050	Support Vector Machine-based Fault Diagnosis of Power Transformer Using k Nearest-Neighbor Imputed DGA Dataset	Sahri Zahriah	Universiti Teknikal Malaysia Melaka	08:30-12:00
50051	Semantic recognition of a data structure in Big-Data	Aicha BEN SALEM	Lipn Universite Paris 13	08:30-12:00
50073	Analysis of Cardiotocogram Data for Fetal Distress Determination by Decision Tree Based Adaptive Boosting Approach	Turgay IBRIKCI	Gaziantep University	08:30-12:00
50138	SCP-Trust Reasoning Strategy based on Preference and Its Service Composition Process of Context-aware Process	Xiaona Xia	Qufu Normal University	08:30-12:00
50044	learning actions from the identity in the web	Khawla Ali	Huazhong university of Science and Technology	08:30-12:00
50070	Paraspinal Muscle Segmentation in CT Images using Fuzzy C-means Clustering	Yong Wei	University of North Georgia	08:30-12:00
50081	Efficient Compressive Multi-focus Image Fusion	Chao Yang	University of South China	08:30-12:00
50100	Amplitude and Phase Analysis based on Signed Demodulation for AM-FM Signal	Xu Guanlei	Dalian Navy Academy	08:30-12:00
50131	Speech Signal Recovery Based on Source Separation and Noise Suppression	Guoan Bi	Nanyang Technological University	08:30-12:00

50144	Application of Evolutionary Algorithm for Optimal Directional Overcurrent Relay Coordination	Komla Folly	University of Cape Town	08:30-12:00
50148	Self-Adaptive DE Applied to Controller Design	Komla Folly	University of Cape Town	08:30-12:00
50169	The Digital Fingerprinting Method for Static Images Based on Weighted Hamming Metric and on Weighted Container Model	Sergey Bezzateev	Saint Petersburg State University of Aerospace Institution	08:30-12:00

The 2nd Agricultural Science and Food Engineering Conference (ASFE 2014) & The 4th International Conference on Pollution and Treatment Technology (PTT 2014)

Schedule

Registration (July 11-13, 2014)

Location: Lobby, Beijing Yanshan Hotel

Time: July 11, 14:00 - 17:00

Location: 2nd floor, Beijing Yanshan Hotel

Time: July 12, 08:30 - 12:00

Oral Session (July 12, 2014)

Location: Orchid Room (雅兰厅), 2nd floor, Beijing Yanshan Hotel

Time: 08:30-12:00 (**Coffee Break** 10:30-10:45)

Lunch

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 12:00-13:00

Dinner

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 18:00-19:00

One-day Tour (at own expense)

Location: The Great Wall and Ming Tombs (Thirteen Tombs of Ming Dynasty)

Time: July 13, 2014

Oral Sessions

Oral Session

Session Chair: Anthimos Xenidis, National Technical University of Athens

Orchid Room (雅兰厅), 2nd floor Saturday, July 12

ID	Paper Title	Speaker	Affiliation	Time
50145	On Numerical Simulation of Black Carbon (Soot) Emissions from Non-Premixed Flames	Xianchang Li	Lamar University	08:30-12:00
50034	Nutritional composition comparison of meat from Yellow River-coilia, Yangtze River-coilia and East Sea-coilia	Li Yuqi	Shanghai Ocean University	08:30-12:00
50038	Physical Linkage Analysis among Integrons, ISEcp1, IS26, and Transposons in Salmonella Isolates from Chicken Farms, Slaughter Houses and Retail Chicken Meats	Sara Kim	Korea University	08:30-12:00
50047	Combined activities of Garlic Powder and Major Diallyl Disulfide against ESBL-producing E. coli from Retail Chicken, Chicken Farms, and Slaughterhouses	Su-Jin Jo	Korea University	08:30-12:00
50083	Root and Foot Rot Diseases of Winter Wheat	Jozef Tyburski	University of Warmia and Mazury in Olsztyn	08:30-12:00
50108	Study the heavy metal concentrations in the surface sediments of the Asaluyeh Bay, Iran	Mansooreh Dehghani	Shiraz University of Medical Sciences	08:30-12:00
50112	Performance Evaluation of an enhanced Sequencing Batch Reactor with pre-anoxic zone and internal recycle in simultaneous removal of nitrogen and phosphorous	Tahereh Jafarzadeh Ghehi	Tehran University of Medical Sciences	08:30-12:00
50150	Investigation of Dentists' Workplace Conditions and Quality of life	Zahra Zamanian	Shiraz University of Medical Science	08:30-12:00
50167	Korean Atmospheric Environmental Impact Assessment for thermal power plant	Young Soo Lee	Korea Environment Institute	08:30-12:00

50175	Respiratory Sensitization & Sickness from Welding/Burning Isocyanate Containing Paints	Terrence Stobbe	University of Arizona	08:30-12:00
50099	Investigation of reductive roasting of iron in alumina red mud	Sophia Thymi	National Technical University of Athens	08:30-12:00
50171	Application of iron nanoparticles synthesized by green tea for the removal of hexavalent chromium in column tests	Anthimos Xenidis	National Technical University of Athens	08:30-12:00
50172	Suppression of pyrite oxidation by surface coating with silica	Nymphodora Papassiopi	National Technical University of Athens	08:30-12:00
50061	Nutrients and Organic Matters Removal in a Full Scale Constructed Wetland; Efficiency and Kinetic Modeling	Mitra Gholami	Iran University of Medical Sciences	08:30-12:00
50071	Reduction of the Additives Migration From Poly Vinyl Chloride Films by the Use of Permanent Plasticizers	Naima Belhaneche-Bens	National Polytechnic School	08:30-12:00
50092	How to Protect Urban Road Dusts from Heavy Metals? Bacterial Recipe for the same	Varenyam Achal	East China Normal University	08:30-12:00
50088	Economic Assessment of Sugarcane (Saccharum Officinarum L.) Through Intercropping	Abdul Rehman	University of Sargodha	08:30-12:00

The 4th Quantitative Economics Conference (QEC2014) & the 5th Conference on Web Based Business Management (WBM 2014).

Schedule

Registration (July 11-13, 2014)

Location: Lobby, Beijing Yanshan Hotel

Time: July 11, 14:00 - 17:00

Location: 2nd floor, Beijing Yanshan Hotel

Time: July 12, 08:30 - 12:00

Oral Session (July 12, 2014)

Location: Orchid Room (雅兰厅), 2nd floor, Beijing Yanshan Hotel

Time: 13:30-18:00 (**Coffee Break** 15:30-15:45)

- **Invited Speech:** A Model of Optimal Development
  Speaker: Dr. Prabir C. Bhattacharya, Heriot-Watt University, UK
  Time: 13:30-14:00

Lunch

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 12:00-13:00

Dinner

Location: VISTA CAFÉ (雅景咖啡厅), 1st Floor, Beijing Yanshan Hotel

Time: July 12, 18:00-19:00

One-day Tour (at own expense)

Location: The Great Wall and Ming Tombs (Thirteen Tombs of Ming Dynasty)

Time: July 13, 2014

Invited Speech

Invited Speech: A Model of Optimal Development

Speaker: Dr. Prabir C. Bhattacharya, Heriot-Watt University, UK
Time: 13:30-14:00, Saturday Afternoon, July 12, 2014
Location: Orchid Room (雅兰厅), 2nd floor, Beijing Yanshan Hotel

Abstract
The paper presents a model of optimal development. The framework presented, it is believed, can be of help in thinking about policies relating, inter alia, to population growth, inter-sectoral migration, agriculture-industry relationship, wages in different sectors, and income distribution in an inter-connected way in the context of optimal development of an economy with an informal sector.

Oral Sessions

Oral Session

Session Chair: Hailong Qian, Saint Louis University

Invited Speech: Dr. Prabir C. Bhattacharya, Heriot-Watt University, UK (13:30-14:00)

Orchid Room (雅兰厅), 2nd floor Saturday, July 12

ID	Paper Title	Speaker	Affiliation	Time
50023	Ambiguous Jumps, Fears and Robust Portfolio Strategies	Xing Jin	University of Warwick	14:00-14:15
50032	Contagion Effects of Natural Disasters and Financial Crisisin in the Stock Markets	Su-Lien Lu	Pingtung University of Science and Technology	14:15-14:30
50037	Redundancy of Moment Conditions for Linear Transformation of Parameters	Hailong Qian	Saint Louis University	14:30-14:45
50077	Pricing Models of Equity Swaps under Levy Process	Wang Ming-Chieh	National Chi-Nan University	14:45-15:00
50078	The cross-sectional risk premium of decomposed market volatility in UK stock market	Yan Yang	Cardiff University	15:00-15:15
50095	Corruption and growth: new findings using GMM	Girijasankar Mallik	University of Western Sydney	15:15-15:30
50159	Group Ranking Sequence Decision for Recommendation of Messaging APP	Wei-Feng Tung	Fu-Jen Catholic University	15:30-15:45
50090	Disappearing Dividends: Two Rational Explanations	Min Maung	University of Saskatchewan	15:45-16:00
50104	Comparing behavioural and rational expectations for the US post-war economy	Chunping Liu	Nottingham Trent University	16:00-16:15
50117	The Fiscal Theory of the Price Level - identification and testing	Zhirong Ou	Cardiff University	16:15-16:30
	Coffee Break			**16:30-16:45**
50142	Central Bank Intervention, Intervention Frequency and Threshold Effects: Evidence from Chinese Yuan-US Dollar Foreign Exchange Market	He Li	Durham University	16:45-17:00
50143	Comparison of market risk models with respect to suggested changes of Basel Accord	Tomas Tichy	VSB-TUO	17:00-17:15

50040	The Effect of Technology Innovation Strategy, Knowledge Exploration and Exploitation on Innovation Performance	Jing-Wen Huang	National Pingtung University of Education	17:15-17:30
50079	Social Networks sites (SSNs) available to promotion of biotechnology summit (BS12 & BS14) & International Biotechnology Color Journal	Susana Lozano	Universidad del Papaloapan	17:30-17:45
50086	Process Verus Product Innovations: When Do IT Capabilities Matter?	Ruby Lee	Florida State University	17:45-18:00

Appendix

CiSE 2014& CSIP 2014

Article ID: 50039
Title: Tree-Based Revocation for Certificateless Authentication in Vehicular Ad-hoc Networks
Name: Pino Caballero-Gil
Affiliation: University of La Laguna
E-mail: pcaballe@ull.es

Abstract
This work proposes authentication based on identity as a way to increase the efficiency and security of communications in vehicular ad-hoc networks. When using identity-based cryptography to achieve certificateless authentication, membership revocation is not a trivial problem. Thus, in order to improve the performance of revocation in such networks, the use of a dynamic authenticated data structure based on perfect k-ary hash trees combined with a duplex version of the new standard SHA-3 is here presented. Efficient algorithms in the used revocation trees allow reaching a refresh rate of at most simple updates per inserted node. Consequently, the proposal is especially useful for situations with frequent revocations, which are foreseeable when vehicular ad-hoc networks are widely deployed.

Article ID: 50041
Title: Composition of Specification Modules: recent developments
Name: Razvan Diaconescu
Affiliation: Institute of Mathematics of the Romanian Academy
E-mail: Razvan.Diaconescu@imar.ro
Abstract
In this presentation we first give a brief overview of the current status of modularisation for formal specifications and then we discuss a series of recent developments including parameter instantiation with sharing and module systems for behavioural specifications.

Article ID: 50050
Title: Support Vector Machine-based Fault Diagnosis of Power Transformer Using k Nearest-Neighbor Imputed DGA Dataset
Name: Sahri Zahriah
Affiliation: Universiti Teknikal Malaysia Melaka
E-mail: szahriah2511@yahoo.com.my

Abstract
Missing values are prevalent in real-world datasets and they may reduce predictive performance of a learning algo-rithm. Dissolved Gas Analysis (DGA), one of the most deployable methods for detecting and predicting incipient faults in power transformers is one of the casualties. Thus, this paper proposes filling-in the missing values found in a DGA dataset using the k-nearest neighbor imputation method with two different distance metrics: Euclidean and Cityblock. Thereafter, using these imputed datasets as inputs, this study applies Support Vector Machine (SVM) to built models which are used to classify transformer faults. Experimental results are provided to show the effectiveness of the proposed approach.

Article ID: 50051
Title: Semantic recognition of a data structure in Big-Data
Name: Aicha BEN SALEM
Affiliation: Lipn Universite Paris 13

E-mail: bensalem@lipn.univ-paris13.fr

Abstract
Data governance is a subject that is becoming increasingly important in business and government. In fact, good governance data allows improved interactions between employees of one or more organizations. Data quality represents a great challenge because the cost of non-quality can be very high. Therefore the use of data quality becomes an absolute necessity within an organization. To improve the data quality in a data source, our purpose, in this paper, is to add semantics to data and help user to recognize data schema in Big-Data. The originality of this approach lies in the semantic aspect it offers. It detects issues in data and proposes a data schema by applying a semantic data profiling.

Article ID: 50073
Title: Analysis of Cardiotocogram Data for Fetal Distress Determination by Decision Tree Based Adaptive Boosting Approach
Name: Turgay IBRIKCI
Affiliation: Gaziantep University
E-mail: mahsereci@gantep.edu.tr

Abstract
Cardiotocography is one of the most widely used technique for recording changes in fetal heart rate (FHR) and uterine contractions. Assessing cardiotocography is crucial in that it leads to identify fetuses which suffers from lack of oxy-gen, i.e. hypoxia. This situation is defined as fetal distress and requires fetal intervention in order to prevent fetus death or other neurological disease caused by hypoxia. In this study a computer-based approach for analyzing cardioto-cogram including diagnostic features for discriminating a pathologic fetus. In order to achieve this aim adaptive boost-ing ensemble of decision trees and various other machine learning algorithms are employed.

Article ID: 50138
Title: SCP-Trust Reasoning Strategy based on Preference and Its Service Composition Process of Context-aware Process
Name: Xiaona Xia
Affiliation: Qufu Normal University
E-mail: xiaxn@sina.com

Abstract
Before providing services to the user, user preference considerations are the key conditions to achieve the self-adaptive decision-making about service selection and composition process, that is the flexible concerned aspects provided by massive cloud computing environment data. Meanwhile, during the whole services' providing process, achieving the capturing and forming of service aggregation units' topology logic, building the context environment's process-aware of service composition, ensuring the trust and adaptation among service aggregation units, which are the important reasons to express timely requirement preference. This paper designs SCP-Trust Reasoning strategy about the integration of user preference and trust, with process algebra, it is to achieve the context process-aware logic for service composition process, in order to improve the autonomous optimization and evolution of service implementation system.

Article ID: 50044
Title: learning actions from the identity in the web
Name: Khawla Ali
Affiliation: Huazhong university of Science and Technology
E-mail: khawlahussein@yahoo.com

Abstract

This paper proposes an efficient and simple method for identity recognition in uncontrolled videos. The idea is to use images collected from the web to learn representations of actions related with identity, use this knowledge to automatically annotate identity in videos. Our approach is unsupervised where it can identify the identity of human in the video like YouTube directly through the knowledge of his actions. Its benefits are two-fold: 1) we can improve retrieval of identity images, and 2) we can collect a database of action poses related with identity, which can then be used in tagging videos. We present the simple experimental evidence that using action images related with identity collected from the web, annotating identity is possible.

Article ID: 50070
Title: Paraspinal Muscle Segmentation in CT Images using Fuzzy C-means Clustering
Name: Yong Wei
Affiliation: University of North Georgia
E-mail: yong.wei@ung.edu

Abstract
Minimally Invasive Spine surgery (MISS) was developed to treat disorders of the spine with less disruption to the mus-cles. Surgeons use CT images to monitor the volume of muscles after operation in order to evaluate the progress of pa-tient recovery. The first step in the task is to segment the muscle regions from other tissues/organs in CT images. How-ever, manual segmentation of muscle regions is not only inaccurate, but also time consuming. In this work, Gray Space Map (GSM) is used in fuzzy c-means clustering algorithm to segment muscle regions in CT images. GSM combines both spatial and intensity information of pixels. Experiments show that the proposed GSM-based fuzzy c-means clus-tering muscle CT image segmentation yields very good results.

Article ID: 50081
Title: Efficient Compressive Multi-focus Image Fusion
Name: Chao Yang
Affiliation: University of South China
E-mail: ychao0906@163.com

Abstract
Two key points of pixel-level multi-focus image fusion are the clarity measure and the pixel coefficients fusion rule. Along with different improvements on these two points, various fusion schemes have been proposed in literatures. However, the traditional clarity measures are not designed for compressive imaging measurements which are maps of source sense with random or likely random measurements matrix. This paper presents a novel efficient multi-focus image fusion framework for compressive imaging sensor network. Here the clarity measure of the raw compressive measurements is not obtained from the random sampling data itself but from the selected Hadamard coefficients which can also be acquired from compressive imaging system efficiently. Then, the compressive measurements with different images are fused by selecting fusion rule. Finally, the block-based CS which coupled with iterative projection-based reconstruction is used to recover the fused image. Experimental results on common used testing data demonstrate the effectiveness of the proposed method.

Article ID: 50100
Title: Amplitude and Phase Analysis based on Signed Demodulation for AM-FM Signal
Name: Xu Guanlei
Affiliation: Dalian Navy Academy
E-mail: xgl_86@163.com

Abstract
This paper proposes a new amplitude and phase demodulation scheme different from the

traditional method for AM-FM signals. The traditional amplitude demodulation assumes that the amplitude should be non-negative, and the phase is obtained under the case of non-negative amplitude, which approximates the true amplitude and phase but distorts the true amplitude and phase in some cases. In this paper we assume that the amplitude is signed (zero, positive or negative), and the phase is obtained under the case of signed amplitude by optimization, as is called as signed demodulation. The main merit of the signed demodulation lies in the revelation of senseful physical meaning on phase and frequency. Ex-periments on the real-world data show the efficiency of the method.

Article ID: 50131
Title: Speech Signal Recovery Based on Source Separation and Noise Suppression
Name: Guoan Bi
Affiliation: Nanyang Technological University
E-mail: egbi@ntu.edu.sg

Abstract
In this paper, a speech signal recovery algorithm is presented for a personalized voice command automatic recognition system in vehicle and restaurant environments. This novel algorithm is able to separate speech sources from a voice of mixed multiple speakers, detect presence/absence of speakers by tracking the higher portion of speech power spectrum and adaptively suppress noises. Automatic speech recognition (ASR) process to deal with the multi-speaker task is designed and implemented. Evaluation tests have been carried out by using the speech database NOIZEUS and the experimental results show that the proposed algorithm achieves impressive performance improvements.

Article ID: 50144
Title: Application of Evolutionary Algorithm for Optimal Directional Overcurrent Relay Coordination
Name: Komla Folly
Affiliation: University of Cape Town
E-mail: Komla.Folly@uct.ac.za

Abstract
In this paper, two Evolutionary Algorithms (EAs) i.e., an improved Genetic Algorithms (GAs) and Population Based Incremental Learning (PBIL) algorithm are applied for optimal coordination of directional overcurrent relays in an in-terconnected power system network. The problem of coordinating directional overcurrent relays is formulated as an optimization problem that is solved via the improved GAs and PBIL. The simulation results obtained using the im-proved GAs are compared with those obtained using PBIL. The results show that the improved GA proposed in this paper performs better than PBIL.

Article ID: 50148
Title: Self-Adaptive DE Applied to Controller Design
Name: Komla Folly
Affiliation: University of Cape Town
E-mail: Komla.Folly@uct.ac.za

Abstract
TAdequate damping is necessary to maintain the security and the reliability of power systems. The most-cost effective way to enhance the small-signal of a power system is to use power system controllers known as power system stabi-lizers (PSSs). In general, the parameters of these controllers are tuned using conventional control techniques such as root locus, phase compensation techniques, etc. However, with these methods, it is difficult to ensure adequate stability of the system over a wide range of operating conditions. Recently, there have been

some attempts by researchers to use Evolutionary Algorithms (EAs) such as Genetic Algorithms (GAs), Particle Swarm Optimization, Differential Evolution (DE), etc., to optimally tune the parameters of the PSSs over a wide range of operating conditions. In this paper, a self-adaptive Differential Evolution (DE) is used to design a power system stabilizer for small-signal stability enhance-ment of a power system. By using self-adaptive DE, the control parameters of DE such as the mutation scale factor F and crossover rate CR are made adaptive as the population evolves. Simulation results are presented to show the effec-tiveness of the proposed approach.

Article ID: 50169
Title: The Digital Fingerprinting Method for Static Images Based on Weighted Hamming Metric and on Weighted Container Model
Name: Sergey Bezzateev
Affiliation: Saint Petersburg State University of Aerospace Institution
E-mail: bsv@aanet.ru

Abstract
The algorithm of fingerprint constructing for still images based on weighted image structure model is proposed. The error correcting codes that are perfect in weighted Hamming metric are used as a base for fingerprint constructing.

ASFE 2014& PTT 2014

Article ID: 50145
Title: On Numerical Simulation of Black Carbon (Soot) Emissions from Non-Premixed Flames
Name: Xianchang Li
Affiliation: Lamar University
E-mail: xli2@lamar.edu

Abstract
Soot emissions (PM 2.5) from land-based sources pose a substantial health risk, and now are subject to new and tougher EPA regulations. Flaring produces significant amount of particulate matter in the form of soot, along with other harmful gas emissions. A few experimental studies have previously been done on flames burning in a controlled condition. In these lab-experiments, great effort is needed to collect, sample, and analyze the soot so that the emission rate can be calculated. Soot prediction in flares is tricky due to variable conditions such as radiation and surrounding air available for combustion. Work presented in this paper simulates some lab-scale flares in which soot yield for methane flame mixture was measured under different conditions. The focus of this paper is on soot modeling with various flair operating conditions. The computational fluid dynamics software ANSYS Fluent 13 is used. Different soot models were explored along with other chemistry mechanisms. The effect of radiation models, quantity of air supplied, different fuel mixture and its effect over soot formations were also studied.

Article ID: 50034
Title: Nutritional composition comparison of meat from Yellow River-coilia, Yangtze River-coilia and East Sea-coilia
Name: Li Yuqi
Affiliation: Shanghai Ocean University
E-mail: lyq817@gmail.com

Abstract
Coilia ectenes is a type of migratory fish, of which, Yangtze River-coilia is the most famous one. Yangtze River-coilia is regarded as one of most delicious fishes in Yangtze River, especially

the Coilia ectenes before ovulation. However, the production of Yangtze River-coilia has declined dramatically in recent years due to overfishing and environmental pollution, and failed to meet marketing demand. Experts have been focusing on artificial domestication and breeding of Yangtze River-coilia. The nutritional qualities of meat from Yellow River-coilia, Yangtze River-coilia and East Sea-coilia before ovulation have not been reported as so far. The nutritional composition of meat from three species of Coilia ectenes, Yellow River-coilia, Yangtze River-coilia and East Sea-coilia before ovulation were measured according to AOAC and other published methods. Results indicated that Coilia ectenes were characterized by high fat contents, ranging from 10.30g/100g to 20.89g/100g, and East Sea-coilia was the highest. All of the three species were rich in unsaturated fatty acid, which accounted for over 50% of total fatty acids (TFA) and predominated by C18:1n9c. The contents of C18:1n9c were ranging from 5351.0mg/100g to 7188.90mg/100g, the highest for East Sea-coilia. Meanwhile, the ratios of polyunsaturated fatty acids to saturated fatty acids (PUFA/SFA) were all above 0.4. The n-3/n-6 ratios were between 6.13 and 9.11, the highest for Yellow River-coilia. Moreover, the total contents of EPA and DHA were ranging from 1865.34mg/100g to 2165.95mg/100g, the highest for East Sea-coilia. C18:1n9c contents accounted for almost half of TFA, and the content in East Sea-coilia was significantly higher (p<0.05) than other two. Yangtze River-coilia has significantly higher (p<0.05) content of C16:1 (positive correlation with meat flavor) and significantly lower (p<0.05) content of C18:0 (negative correlation with meat flavor). Total amino acid (TAA) contents were in the range of 43.4g/100g to 60.17g/100g dry weight, with the highest for Yellow River-coilia. All amino acids contents in East Sea-coilia were significantly lower (p<0.05) than the other two species. Moreover, Coilia ectenes are good resources of essential amino acid (EAA), with EAA/TAA and EAA/NEAA were comparable with recommendation. Yellow River-coilia has the highest ratio of total essential amino acids to total amino acids (TEAA/TAA). Most macroelement contents had significant differences (p<0.05) among three species. K, Na and Ca were the most abundant minerals in Coilia ectenes. Na content in East Sea-coilia was significantly higher (p<0.05) than other two, while K content was on the contrary. Among the microelements, Fe exhibited the highest contents in three species. The overall results indicated that three species of Coilia ectenes were of both high nutritional qualities, and can be regarded as good resource of fatty acids and amino acids.

Article ID: 50038

Title: Physical Linkage Analysis among Integrons, ISEcp1, IS26, and Transposons in Salmonella Isolates from Chicken Farms, Slaughter Houses and Retail Chicken Meats

Name: Sara Kim

Affiliation: Korea University

E-mail: saradora22@naver.com

Abstract

62 Salmonella strains were isolated from chicken farms, slaughters and retail chicken meats collected from 13 different cities in South Korea in 2013. All Salmonella isolates were examined for multi-drug resistant phenotypes and presence of class 1, class 2 and class 3 integron sequences. Three isolates (Sal 46-FC-KU13, Sal 47-FC-KU13 and Sal 49-FC-KU13) had class 1 integrons and Tn21 bearing transposase TnpM and TnpR. Neither class 2 nor class 3 was detected. Antimicrobial resistance patterns were different among integron-negative and integron-positive strains, and three integron-positive isolates were resistant to more than nine different antimicrobial agents. Class 1 integron-positive isolates showed significantly

higher resistance to trimethoprim/sulfamethoxazole (MIC ⩾ 256 μg/mL) and chloramphenicol (MIC ⩾ 128 μg/mL) which is entirely susceptible to all of class 1 integron-negative strains except just one strain. Non-integron isolates were resistant to nalidixic acid, gentamycin and cefotaxime where integron-positive Salmonella were totally susceptible. Typical class 1 integrons and trimethoprim/sulfamethoxazole and chloramphenicol conferring genes were found in conjugative plasmids. This study demonstrated the possible function of class 1 integron in Salmonella spp., which may transfer specific resistant genes and cause higher resistance to specific antibiotics other than containing only antimicrobial resistant genes.

Article ID: 50047
Title: Combined activities of Garlic Powder and Major Diallyl Disulfide against ESBL-producing E. coli from Retail Chicken, Chicken Farms, and Slaughterhouses
Name: Su-Jin Jo
Affiliation: Korea University, Republic of Korea
E-mail: jsj104@naver.com

Abstract
Garlic (Allium sativum Linn.), a family member of Liliaceae Allium, has been used traditionally as medicine to treat a lot of diseases and has been reported as a plant with antibacterial activity The aim of this study was to investigate the combined effects of the heat-treated fresh and black garlic powder (GP) and major diallyl disulfide (DADS) against 34 ESBL-producing Escherichia coli strains were isolated from retail chicken, chicken farm, and slaughterhouses in Korea. The determination of allicin (diallyl thiosulfinate) in four types of GP (fresh and black GP heat-treated at 80°C, 25°C each) were analyzed by high performance liquid chromatography (HPLC). Fresh GP of heat-treated at 25& 176;C, 80& 176;C contained 2560 and 216 mg/kg, respectively, but there were no allicin in black GPs. The combined effects of GP and DADS against ESBL-producing E. coli were determined by the minimal inhibitory concentrations (MIC) and minimal lethal concentrations (MLC). Fresh GP of heat-treated at 25°C with DADS at concentrations (w/v) showed the lowest MIC (5 mg/ml), followed by fresh GP of heated at 80°C (10 mg/ml), black GP of heated at 25, 80°C (20 mg/ml). The order of MLCs of GPs with DADS was fresh GP of heated with DADS 25& 176;C (5 mg/ml) < fresh GP of heated with DADS 80& 176;C (10 mg/ml) &alt; black GPs of heated with DADS at 25, 80& #176;C (20 mg/ml). The effects of GP and DADS exist in ESBL-producing E. coli, suggesting their potential for cooking process against E. coli infections.

Article ID: 50083
Title: Root and Foot Rot Diseases of Winter Wheat
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Abstract
The object of the study was fungous diseases occurring on roots, leave sheaths and stem base of winter wheat in the two opposing cropping systems (organic and conventional). The observations were made in vegetation periods (2007-2009) in the fields of winter wheat in northern Poland. Every year on each plot of compared farming systems root rot occurred (Fusarium spp., Gaeumannomyces graminis and other fungi). For the period of 3 years the degree of disease injury on the roots of winter wheat grown in the conventional system in the

vegetation period increased, while in the organic one remained on pretty the same level. On average a lot more affected roots, especially in the flowering stage, occurred on the winter wheat grown in the conventional system. Fusarium foot rot (Fusarium spp.) developed on the wheat during the entire vegetation period. It was the most dangerous root and foot rot disease (the highest indexes of injury). The mean degree of disease injury on leave sheath was on pretty the same level in the two farming systems, although in investigated vegetation periods differed a lot, whereas at the bases of stems the pathogen was on the higher level on the wheat in the conventional system. Also eyespot (Tapesia yallude) developed in the entire vegetation period of the winter wheat, but its intensity was much lower than in case of fusarium foot rot. Leave sheaths of the wheat grown in the conventional system were slightly stronger affected than those grown in the organic system. In the flowering stage the intensity of the disease in both farming systems became equal, while in the wax maturity it was considerably higher in the conventional system. Sharp eyespot (Rhizoctonia spp.) appeared relatively late and occurred only in two years of investigation. The intensiveness of the disease was definitely higher on the organic plots. Among the affected roots, taken in the stem elongation stage, from the organic system 28 cultures of fungi were isolated, and from the conventional one 24 colonies. Cereals pathogenic fungi amounted 35.8% of isolates obtained from the organic system and as many as 66.7% from the conventional system. Among the affected roots, taken in the flowering stage, from the organic system 68 cultures of fungi were isolated in all, and from the conventional one 25 colonies. Cereals pathogenic fungi amounted 38.2% of isolates obtained from the organic system and 56.0% from the conventional system. Among the affected stem bases, taken in the wax maturity stage, from the organic system 56 cultures of fungi were isolated in all, and from the conventional one 52 colonies. Cereals pathogenic fungi amounted 48.4% of isolates obtained from the organic system and 53.6% from the conventional system. In the case of all root and foot rot diseases of wheat grown in the organic system, an advantageous influence of greater biodiversity and number of various fungi species living in root proximity was noticed as opposed to the conventional system.

Article ID: 50018

Title: Effect of Arbuscular mycorrhizal (AM) fungi on the physiological performance of Phaseolus vulgaris grown under crude oil contaminated soil.

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Abstract

An experiment was conducted to assess the influence of arbuscular mycorrhizal (AM) fungi on the performance of Phaseolus vulgaris under crude oil contaminated soil. P. vulgaris was grown on soil under 2%, 4% and 8% (v/w) crude oil contamination. The experimental units were biostimulated with 2 g NPK fertilizer pot-1 and were inoculated with 12 g AM inoculum pot-1. Non inoculated pots served as control. The results showed that AM inoculated pots recorded higher and significantly (P<0.05) different dry matter yields and chlorophyll content than non AM inoculated pots. Residual total petroleum hydrocarbon (TPH) increased as percent crude oil contamination increased. Total petroleum hydrocarbon decomposition and removal was higher on pots inoculated with AM than non inoculated pots. With AM colonization, physiological characteristics of P.vulgaris and TPH decomposition improved. This is evinced by the linear regression analysis between colonization and TPH (R2=0.77).

Article ID: 50108
Title: Study the heavy metal concentrations in the surface sediments of the Asaluyeh Bay, Iran
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Abstract
Heavy metals widely used in the industrial and refining activities are frequently detected in sediments. The main objectives of this research were focused on determining the concentration of Cd and Pb in the sediments of Asaluyeh and compare with the standard. The concentration of Pb and Cd in the sediments of Nayband Bay area (contaminated area) and Lavar-e Saheli (control area) were measured. In the summer of 2013, the samples of sediment were collected from 40 stations. The samples were digested using the method Yap 2002 and analyzed by atomic absorption spectrophotometer. The median concentration of Pb and Cd in the sediments collected from Nayband ranged from 3.56 to 5.25 μg/gdw and 1.16 to 1.44 μg/gdw, respectively. The concentrations of Pb and Cd in most of the sediment samples in the study area were higher than the Persian Gulf standards. Therefore, it is essential to use abatement efforts to clean-up the polluted areas in the coastal area of the Asaluyeh Bay and prevent the discharging of the untreated or partially treated wastewater to the Persian Gulf as well.

Article ID: 50150
Title: Investigation of Dentists' Workplace Conditions and Quality of life
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Abstract
Background: It has been proved that the prevalence of experiencing job related stress is very high among dentists. This stress can be the result of factors such as poor lightening of dental office and noise and this stress can cause emotional distress and threaten dentists' physical health and affect their quality of life. This study is conducted to determine dentists' professional quality of life and job-related stress and two important workplace factors that can affect them which are lighting and noise. Materials and Methods: Researcher has visited dental offices in Shiraz city and has measured lighting and noise of the places, also dentist's quality of life and job stress was determined using McGill quality of life questionnaire and job-stress questionnaire. Results: The relationship between quantitative variables was determined by using regression test and the multiple regression test was used for the modeling process. The average of local noise cased by dental drills and other parameters was 75.5 and 74.5 in public and private offices. In 2.2% of dental offices lightening condition was below standard levels. Results show that 58.9% of dentists participating in this study experience good or fairly good quality of life. Conclusion: The results suggest that workplace environmental situation and dentists' professional stress and quality of life are correlated. So adjusting effective workplace parameters to the standard levels can lead to increase in dentists' quality of life.

Article ID: 50167
Title: Korean Atmospheric Environmental Impact Assessment for thermal power plant
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Abstract
Korea has adopted EIA system for more than 3 decades. There are 74 big projects subject to EIA according to 「Environmental Impact

Assessment Law(No.10892)」. For thermal power plant of which output is more than 10MW, EIA must be done by proponents. To assess impact on atmospheric environment, proponents utilize air dispersion modeling and to minimize the adverse impact, state-of-the art add-on control technology is applied.

Article ID: 50175
Title: Respiratory Sensitization & Sickness from Welding/Burning Isocyanate Containing Paints
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Abstract
The purpose of this paper is to make the environmental and occupational health community aware of a serious health risk associated with the common practice of burning industrial paint off of metal surfaces during or prior to welding. On four occasions bystanders and welder/burner personnel have experienced illness as a result of being exposed to the combustion products of isocyanate paints that were being burned off metal surfaces. In each case, the burning and the exposed people were outside in an open environment where the health risk was thought to be minimal due to the open environment with nominal wind movement through the work area. In one case, the person (a burner) developed permanent sensitization to phthalic anhydride as a result of the exposure. Phthalic anhydride was determined to be decomposition product of burned isocyanate paint. In the other three cases (which involved very short exposures), between two and six people became ill but did not develop sensitization. Their symptoms included dizziness, nausea, headache, and breathing difficulty the severity of which varied from very uncomfortable to temporarily incapacitating. This paper discusses the circumstances associated with each event, the approach used to determine that phthalic anhydride was a decomposition product, and some practical things that can be done to avoid having employees become victims of exposure.

Article ID: 50099
Title: Investigation of reductive roasting of iron in alumina red mud
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Abstract
Alumina Red Mud is a by-product of the Bayer process, a method which is universally applied for the refining of bauxite to smelting grade alumina, the precursor to aluminium. Current management practice of Alumina Red Mud in Greece involves dewatering using four press filters and land disposal of bauxite residues produced. Taking into consideration that iron is the major constituent of bauxite residues, much attention has been directed toward its recovery. The application of combined treatment methods involving reduction roasting to magnetic iron ore products and the magnetic separation to recover magnetic iron products is being investigated. In the present paper, the reductive roasting of red mud to either magnetite or metallic iron was investigated using a gas mixture of carbon monoxide and carbon dioxide as reducing agent. Experiments were conducted in a furnace equipped with a balance for the continuous monitoring of the sample weight. Several parameters were investigated including roasting temperature, CO concentration in the reducing agent and retention time. It was found that roasting is highly dependent on both CO content and temperature, reaching up to 75% at 900 °C and 80% CO content.

Article ID: 50171
Title: Application of iron nanoparticles synthesized by green tea for the removal of hexavalent chromium in column tests
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Abstract
Nano zero valent iron particles (nZVI) are popular the last few years because of the numerous ap-plications in remediation of a wide range of pollutants in contaminated soils and aquifers. The nZVI particles can be 10-1000 times more reactive than granular or micro-scale ZVI particles due to the small particle size, large specific surface area and high reactivity. An alternative green synthesis procedure was used for the production of nano zero valent iron particles (nZVI) using green tea (GT) extract, which is characterized by its high antioxidant content. Polyphenols in green tea extract possess double role in the synthesis of nZVI, because they not only reduce ferric cations, but also protect nZVI from oxidation and agglomeration as capping agents. The objective of current study was to simulate at a laboratory scale the attachment of GT-nZVI par-ticles on soil material and study the effectiveness of attached nanoparticles for removing hexavalent chromium (Cr(VI)) from contaminated groundwater flowing through the porous soil bed. Column tests were carried out with various flowrates in order to examine the effect of contact time between the attached on porous medium nZVI and the flow-through solution on Cr(VI) reduction. After the completion of column tests the soil material in each column was split in 5 vertical sections, which were further subjected to chemical analyses and leaching tests. According to the results of the study increasing the contact time favors the reduction and removal of Cr(VI) from the aqueous phase. The reductive precipitation of Cr can be described as a reaction that follows a pseudo-first order kinetic law, with rate constant equal to k=0.0243±0.0011 min-1. Leaching tests indicated that precipitated chromium is not soluble. In the examined soil material, the total amount of precipitated Cr was found to range between 280 and 890 mg/(kg soil), while soluble Cr was less than 1.4 mg/kg and most probably it was due to the presence of residual Cr(VI) solution in the porosity of soil.

Article ID: 50172
Title: Suppression of pyrite oxidation by surface coating with silica
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Abstract
The exposure of pyrite (FeS2) to atmospheric conditions during mining activity causes a series of complex oxidation reactions, resulting to acid generation and the subsequent release of toxic heavy metals in the surrounding aquatic and terrestrial ecosystems. The produced acidic mine waters, known as acid mine drainage (AMD), constitute one the major environmental problems of both operating and abandoned mixed sulphide, coal and other mine sites where sulphidic minerals are encountered. A sustainable approach to the environmentally safe pyrite-bearing extractive waste management is related to the prevention of oxidation by developing artificial coatings on the pyrite surfaces. In this study, experiments performed to study the conditions of the silica coating formation on the FeS2 particles contained in a pyrite concentrate are presented. Batch tests involving the treatment of pyrite samples with a coating solution, consisting of Na2SiO3, H2O2 and buffered pH, were performed under a liquid to solid ratio (L/S) 100 l/kg. The effect of parameters including SiO2

concentration (5-50 mM), pH values (5.0-8.0) and contact time up to 24 hours, was investigated. Parameters examined to monitor the silica coating formation process include analysis of Fe, Si, SO42- and H2O2 in the aqueous phase. Scanning electron microscopy with energy dispersive spectrometry (SEM/EDS) was used for the examination of the chemically modified surfaces of silica-treated pyrite samples.

Article ID: 50061
Title: Nutrients and Organic Matters Removal in a Full Scale Constructed Wetland; Efficiency and Kinetic Modeling
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Abstract
The removal efficiency of organic material and nutrients from subsurface flow constructed wetland (SSCWs) followed by anaerobic stabilization ponds under environmental conditions was investigated. The pond effluents were distributed evenly into 12 reed beds. Samples were taken as 2 times per month with 6 months duration from several points. The BOD, COD, TSS and nutrient removal of the system and also the longitudinal effect of reed beds in the removal of the various pollutions were determined. Meanwhile, a numerical modeling effort of flow and BOD fate and nutrients in the SSCWs, under full scale conditions, were presented. The removal efficiency of BOD, COD, and TSS and also the greatest biological interactions didn't have a uniform trend and the bed had the highest removal rates in the first few meters of the bed. The hybrid model of Monod - Plug flow regime and also another model, Stover-Kincannon, showed better fitness to accounting the kinetics of processes. The amount of Umax in Stover-Kincannon model for nitrogen and phosphorus was 3.64 and 0.24 mg/L.d, respectively, which are very low, that indicate less consumption and inefficiencies of system for removing nitrogen and phosphorus.

Article ID: 50071
Title: Reduction of the Additives Migration from Poly Vinyl Chloride Films by the Use of Permanent Plasticizers
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Abstract
This aim of this work is to study the partial replacement of the plasticizer ordinarily used di-octyl phtalate (DOP) by the permanent plasticizers EVA and ABS in order to reduce migration of additives initially contents in polyvinyl chloride (PVC) stabilized with expoxidized sunflower oil (ESO). Migration tests with agitation to 40° C in sunflower oil and ethanol at 15 % were made. Migration phenomenon was studied on the basis of the PVC samples mass and peroxide index of sunflower oil variations, and the technical analysis: Fourier transform infrared spectroscopy (FTIR) and scanning electron microscope (SEM).

Article ID: 50092
Title: How to Protect Urban Road Dusts from Heavy Metals? Bacterial Recipe for the same
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Abstract
Ever increasing urban expansion, industrial development and anthropogenic activities are major sources of polluting environment including urban road dusts with heavy metals. Posing with serious environmental problems, heavy metals are the environmental priority pollutants and

require ultimate solution for the removal from road dusts to protect both health and environment. Albeit many reports of such pollution, remediation process for urban road dusts has not been studied. Components and quantity of urban road dusts are environmental pollution indicators. Road dusts are contaminated with toxic metals such as Pb, Hg, Co, Cu, Cr, Zn, Ni and Cd. Various physical, chemical and biological methods are used for metals remediation from contaminated soil. The remediation methods either could decontaminate (reduce the amount of metals by removing from dusts) or stabilize (reduce or eliminate environmental risks by altering the dusts chemistry and sequester or absorb the metals into the matrix) the heavy metals. Nevertheless, the physic-chemical remediation technologies are rarely adopted because of many disadvantages associated with them. Recently, microbially induced calcite precipitation (MICP) has been proposed a promising approach for remediation of various pollutants with advantages on current bioremediation techniques. The ubiquity and importance of microbes in inducing calcite precipitation by producing an enzyme, urease, make MICP active in every environment. This process removes heavy metals from contaminated road dusts and sequesters as biominerals and also facilitates bioprecipitation of metals. The present talk discusses application of such approach in the remediation of heavy metals from urban road dusts collected from different parts of Shanghai, China. The bacterial cells were able to remediate more than 90% of six different heavy metals (Zn, Cr, Pb, Cu, Cd, and Co) from urban road dusts. Further the efficiency of MICP was analyzed and proved in this study. Remediation of heavy metals using MICP may present a viable strategy to remediate and reclaim sites contaminated with metals.

Article ID: 50112

Title: Performance Evaluation of an enhanced Sequencing Batch Reactor with pre-anoxic zone and internal recycle in simultaneous removal of nitrogen and phosphorous

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Abstract

Simultaneous nitrogen, phosphorous and COD removal performance was investigated using a pi-lot-scale enhanced Sequencing Batch Reactor (eSBR) reactor with pre-anoxic zone and internal recycle fed by synthetic wastewater. The operation process took 279 days using 6-hour cycles applying three different operational modes (Run1, Run2 and Run3) and four variable C:N:P ratios (100:5:1; 50:5:1 and 25:5:1). Little variation in COD removal efficiency (94%) under the selected nutrient regimes and various runs was observed. Within all operating conditions and C:N:P ratios, the operational mode Run1 with a C:N:P ratio of 100:5:1 gave the highest nitrogen and phosphorus removal efficiency. Once the most efficient condition was applied, the average removal rate of COD, TN, and TP were found to be 93.52%, 88.31%, and 97.56%, respectively. The optimum aerobic/anoxic condition for cultivation of Denitrifying Phosphorus Accumulating Organisms (DNPAOs) could be achieved by increasing the number of alternating anoxic/oxic periods, therefore a significant denitrifying phosphorus removal oc-curred at Run1. Due to continuous feeding in an eSBR process, a sufficient number of carbon sources could enhance the phosphorus release led by further uptake of phosphorus. Furthermore, both nitrate and nitrite could be used as electron acceptors for denitrifying phosphorus removal.

Article ID: 50088

Title: Economic Assessment of Sugarcane (Saccharum Officinarum L.) Through Intercropping
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Abstract
Sugarcane has pronounced importance to provide sugar for more than half of the global population. World population is enhancing day-by-day and production land is in the worst situation. The cultivated land is diminishing rapidly due to urbanization, road construction, and land deterioration. This crisis demands alternate research to raise crop productivity and maximize the economic returns per unit land for feeding the gigantic population. Sugarcane is a long duration crop and gave late net economic return. Intercropping in sugarcane received much attention and need to properly manage for getting higher net return from same unit area. It is becoming popular among farming community due to resourcefully utilization of land. Intercropping has the potential to inspire the farmers to get maximum economic return per acre per annum. For intercropping, wheat, gram, soybean, and potato were used as an intercrop in September-sown sugarcane. Triple row strip planting geometry of sugarcane with four intercropped (SC+Wheat, SC+Gram, SC+Soybean, and SC+Potato) and check with sole SC was used. Sugarcane was planted during September 2011-12 and 2012-13 at research area University College of Agriculture, University of Sargodha, Pakistan. Randomized complete block design with three replications were used. Results showed that number of millable cane, cane diameter; unstripped and stripped cane yield and crop growth rate was significantly higher in sole sugarcane when compared with different intercrop in 2011-12 while trend was same in 2012-13. Cane diameter and un-stripped cane yield were statistically at par of intercrops SC + Soybean and SC + Potato while stripped cane yield of Sole SC and SC + Potato was statistically at par in 2012-13. In both the year of study, intercrops gave higher land equivalent ratio and net return over sole sugarcane planted while sole sugarcane gave maximum benefit cost ratio compared with other intercrops.

QEC 2014& WBM 2014

Article ID: 50023
Title: Ambiguous Jumps, Fears and Robust Portfolio Strategies
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Abstract
A number of empirical and theoretical studies have documented that jump risk has a substantial impact on portfolio selection. Given that jumps are inherently infrequent, it is difficult to estimate jump models with adequate precision. This paper presents a novel approach to the optimal portfolio selection problem in a potentially large financial market for an investor who faces both diffusion and jump risk and who is averse not only to the risk of loss but also to the uncertainty associated with jumps. More specifically, we develop a pathwise optimization procedure based on martingale methods and minimax results to solve for the probability of the worst scenario and for the optimal portfolio strategy in jump-diffusion models. Our results show how an ambiguity averse investor fears ambiguous jumps by attaching more weight to the likelihood of

adverse events. Finally we apply our theoretical results to a model consisting of three international indices to examine the model uncertainty and properties of the optimal portfolio choices. Our calibration exercise illustrates that it is hard to distinguish the reference model statistically from a set of alternative models and model uncertainty significantly affects the optimal portfolio weights.

Article ID: 50032
Title: Contagion Effects of Natural Disasters and Financial Crisisin in the Stock Markets
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Abstract
In a contemporary world that bustles with global trade, a natural disaster or financial crisis in one country (or region) may cause substantial economic losses and turbulence in local financial markets, which may cause volatile economic activities and financial assets of other countries (or regions). This study focuses on major natural disasters that occurred worldwide during the past decade, especially those in the Asia-Pacific region, and the economic effects of global financial crises. The heteroskedasticity bias correlation coefficient model developed by Forbes and Rigobon (2002) and the exponential general autoregressive conditional heteroskedasticity model were employed to compare the contagion effect in the stock markets of the initiating country and other countries, determining whether economically devastating factors have contagion or spillover effects on other countries. The empirical results indicate that among all natural disasters, the 2008 Sichuan Earthquake in China caused the most substantial contagion effect in the stock markets of neighboring Asian countries; regarding financial crises, the financial tsunami generated the most prominent contagion effect in the stock markets of developing and emerging economies. Thus, in the event of a natural disaster, the stronger the economy of a country is, the more trading partner countries are affected; by contrast, a less powerful economy exerts less–and sometimes no–influence over its trading partner countries. To build a diversified global investment portfolio, investors should be aware of the risks of major natural disasters and financial incidents.

Article ID: 50037
Title: Redundancy of Moment Conditions for Linear Transformation of Parameters
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Abstract
In this paper, we consider the redundancy of an extra set of moment conditions, given an initial set of moment conditions, for the efficient estimation of an arbitrary linear transformation of an original parameter vector. The redundancy condition derived in the current paper unifies the full and partial redundancy of moment conditions of Breusch, Qian, Schmidt and Wyhowski (Journal of Econometrics, 1999).

Article ID: 50077
Title: Pricing Models of Equity Swaps under Levy Process
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Abstract
Equity Swaps are exchanges of cash flows in which the payments on one or both sides are linked to the performance of equities or an equity

index. A typical equity swap involves a notional principal, a specified tenor, and predetermined payment intervals. One of the parties promises to make the payment based on a fixed rate, a floating rate interest rate, or the total equity return, while the other party makes the payment of an agree equity index return based on the same principal amounts. As with interest rate swap, there is usually no initial exchange or re-exchange of principal amounts at maturity. The purpose of this study is to derive the pricing model of equity swaps under the Levy process. The Levy process is a stochastic process with stationary independent increments, implying that it can be approximated a by jump-diffusion process. The jump-diffusion process models are widely used in finance due to the observance of fat tails and period jumps in financial markets. We use a risk-neutral valuation technique to derive swap values in a Levy economy. Under the assumption that the economy is complete and arbitrage-free, there exists a unique domestic spot martingale measure that uses the domestic money market account as a numeraire. As a result, all asset prices in the economy discounted by the domestic savings account will be martingales under this measure. Given the relevant price processes of the equity and bond assets that are derived, we construct the swap payments and then obtain the closed-form solutions under this Levy framework. In this study we also consider the case if the swaps expand into international equity markets and resolve the values of equity swap and swaption with a fixed notional principal. Cross-currency swaps are financial instruments that allow financial managers to capture existing and expected floating or money market rate spreads between alternative currencies without incurring foreign exchange exposure. The traditional pricing formulae of equity swaps cannot be completely applied to the cross-currency way. Because investors can receive the return on the underlying foreign market without currency risk, the currency hedging costs must be incorporated into the swap value. From our models, we show that the volatilities of equity prices and exchange rate, the correlations between the foreign asset prices and exchange rate, all influence the values of equity swaps and swaptions, not only the dynamics of the forward interest rate for domestic equity swaps.

Article ID: 50078
Title: The cross-sectional risk premium of decomposed market volatility in UK stock market
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Abstract
We decompose UK market volatility into short- and long-run components using EGARCH component model and examine the cross-sectional prices of the two components. Our empirical results suggest that these two components are significantly priced in the cross-section and the negative risk premia are consistent with the existing literature. The Fama-French three-factor model is improved by the inclusion of the two volatility components. However, our ICAPM model using market excess return and the decomposed volatility components as state variables compares inferiorly to the traditional three factor model.

Article ID: 50095
Title: Corruption and growth: new findings using GMM
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Abstract
This paper investigates the growth-corruption

relationship in a sample of 146 countries for the period 1984-2009 using panel generalized method of moments. While negative effects of corruption on growth have drawn economists' interest in recent years, our main contribution is to examine the effects by employing the hierarchical polynomial regression to evaluate the relationship after controlling economic and institutional factors. The results challenge some of the findings that negative growth-corruption association in the literature, but also provide new inferences. The findings reflect that corruption is not always growth-inhibitory, for some countries it is growth-enhancing which supports the "grease the wheels" hypothesis. However, our results suggest that a cubic function best fitted the data.

Article ID: 50159
Title: Group Ranking Sequence Decision for Recommendation of Messaging APP
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Abstract
This research is to develop a novel recommendation service using a unique group ranking sequence technique 'Mining Maximum Consensus Sequences from all Users' Partial Ranking Lists (MCSP)'. MCSP is capable of determining the product's sequence recommendations based on k-item candidate sequences and maximum consensus sequences. This paper also illustrates the complete decision procedures of group ranking sequences. In terms of popular information products, we select 'messaging app' to reveal the MCSP's group ranking sequence decision. The recommendation service provides that query users search for the product's recommendation (i.e., messaging app) according to the preference sequences from query users themselves and a great deal of preference sequences from the other users. This paper consists of the definitions, procedures, implementation, and experiment analysis, as well as system demonstrations of MCSP respectively. This research contributes to a kind of systematic service innovation.

Article ID: 50090
Title: Disappearing Dividends: Two Rational Explanations
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Abstract
Fama and French (2001) document a large decline in both the proportion of firms paying dividends and the residual propensity to pay dividends over the preceding two decades. We offer a simple explanation for this phenomenon based on two concurrent trends. First, we show that over this period the average information content of stock prices has increased, diminishing the relative utility of dividend-based signaling – we call this the supply side effect, and show that it is able to explain approximately 30% of the residual propensity to pay dividends over this time period. Second, we find that when firms are included in the S&P500 Index, their stock price response to dividend changes, as well as their dividend yields, decline significantly. Under the assumption that indexers are less concerned with idiosyncratic information, inclusion in the index reduces their demand for dividend-based signaling – we call this the demand side effect. Our study provides two rational explanations for the disappearing dividend puzzle.

Article ID: 50104
Title: Comparing behavioural and rational expectations for the US post-war economy
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Abstract
The banking crisis has caused a resurgence of interest in behavioural models of expectations in macroeconomics. Here we evaluate behavioural and rational expectations econometrically in a New Keynesian framework, using US post-war data and the method of indirect inference. We …nd that after full reestimation the model with behavioural expectations is strongly rejected by the data, whereas the standard rational expectations version passes the tests by a substantial margin.

Article ID: 50117
Title: The Fiscal Theory of the Price Level - identification and testing
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Abstract
We investigate whether the Fiscal Theory of the Price Level (FTPL) can explain UK inflation in the 1970s. We confront the identification problem involved by setting up the FTPL as a structural model for the episode and pitting it against an alternative Orthodox model; the models have a reduced form that is common in form but, because each model is over-identified, numerically distinct. We use indirect inference to test which model could be generating the VECM approximation to the reduced form that we estimate on the data for the episode. Neither model is rejected, though the Orthodox model outperforms the FTPL. But the best account of the period assumes that expectations were a probability-weighted combination of the two regimes.

Article ID: 50142
Title: Central Bank Intervention, Intervention Frequency and Threshold Effects: Evidence from Chinese Yuan-US Dollar Foreign Exchange Market
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Abstract
This paper estimates and analyses the effects of foreign exchange intervention by the People's Bank of China, using daily intervention data from July 22, 2005 to July 22, 2013. Applying threshold GARCH models, we find that the CPR and CB interventions and frequencies could impact the exchange rate movement, and that the effects of CPR intervention and frequency are larger than CB intervention and frequency. In addition, CPR and CB interventions increase the exchange rate volatility, but the intervention frequencies could decrease the volatility. Another main finding is that the objectives of intervention are different before and after the financial crisis.

Article ID: 50143
Title: Comparison of market risk models with respect to suggested changes of Basel Accord
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Abstract
The market risk capital charge of financial institutions is mostly calculated by internal models based on integrated Value at Risk (VaR) approach since introduction of the Amendment to Basel Accord in 1996. The internal models should fulfil several quantitative and qualitative criteria. Besides others, it is a so called backtesting procedure, which was one of the main reasons while alternative approach to market risk estimation -- conditional Value at

Risk or Expected Shortfall (ES) -- were not applicable for the purpose of capital charge calculation. However, it is supposed that this approach will be incorporated into Basel III. In this paper we provide an extensive simulation study using various sets of market data to show potential impact of ES on capital requirements.

Article ID: 50040
Title: The Effect of Technology Innovation Strategy, Knowledge Exploration and Exploitation on Innovation Performance
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Abstract
Innovation enables organizations to enhance their ability to adapt to environment turbulence and maintain competitive advantage. Owing to the increasing importance of innovation, previous research has paid attention on how to balance exploration and exploitation. The implementation of technology innovation strategy can be through knowledge exploration and exploitation, so that the organization could acquire, create, and integrate knowledge resources to apply in product or service to improve innovation performance. Synthesizing insights from prior research, this study aims to examine the interrelationships between technology innovation strategy, knowledge exploration and exploitation, and innovation performance. In addition, this study attempts to explore the potential mediating effect of knowledge exploration and exploitation and the moderating effect of knowledge attribute in these relationships. The population of this study is the manufacturing companies of top 5000 ranking by China Credit Information Service Ltd. This study uses questionnaire survey method and regression analysis to verify research hypotheses. The results show that there are positive relationships between technology innovation strategy, knowledge exploration and exploitation, and innovation performance. Knowledge exploration and exploitation play mediating roles in the relationships between technology innovation strategy and innovation performance. Knowledge attribute moderates the links between technology innovation strategy, knowledge exploration and exploitation, and innovation performance. Finally, managerial implications and future research directions are discussed.

Article ID: 50079
Title: Social Networks sites (SSNs) available to promotion of biotechnology summit (BS12 & BS14) & International Biotechnology Color Journal
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Abstract
Social network sites (SNSs) such as Instagram, Google+, LinkedIn, Twitter, Facebook, BioWebSpin, Blogger are increasingly attracting the attention of millions users, academic and industry researchers intrigued by their affordances and reach, they can vary in the extent to which they incorporate new information and communication tools, such as mobile connectivity, blogging, and photo/video-sharing. SNSs have the potential to increase the reach and efficiency of essential Open Access Publishing Journals, such as research, and communication. Objective: The article showing the different kind of SNSs available in promotion of the aim of the International Foundation for Biotechnology Research & Early Stimulation in the Culture of Health, Nutrition, Sport, Art, Science, Technology and Society civil association, a nonprofit organization (IFFBRAESITCOHNSASTAS A.C.)

biotechnology summit 2012 & 2014 (BS12 & BS14) as the publication of International Biotechnology Color Journal (IBCJ). Methods: We performed a systematic review and use of the social networks available as Instagram, Google+, LinkedIn, Twitter, Facebook, BioWebSpin, Blogger. Results: A total of 7 SNSs was use to promote BS12, BS14 and IBCJ publication. The first four SNSs do not provide statistics or graphical analysis of the behavior of the network, the system provided the number of followers, following, post, and the comments and the option to share or how qualify the post; in the last three SNSs systems offers statistical analysis of various aspects as set forth in the figures. Conclusion: The number of organization that uses SNSs has been steadily increasing in the past 9 years and BS12, BS14 and IBCJ had a lot of promotion and support of a lot of persons from the a different parts of the world with the use of SNSs available and trending in this part of the world.

Article ID: 50086
Title: Process Verus Product Innovations: When Do IT Capabilities Matter?
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Abstract
While innovation has long been considered as the core driver for a firm's success, the differential impacts of process and product innovation on competitive performance in emerging markets has not been examined. Drawing on the innovation literature and IT capabilities portfolio perspective as well as the distinctive characteristics of the emerging markets context, we compare and contrast how IT internal integration and IT market integration affect process and product innovations, which in turn lead to competitive performance in emerging markets. The research model was tested using data collected from 214 firms in China, one of the largest and fastest growing emerging market economies. The results suggest that process innovation has a much stronger effect than product innovation on a firm's competitive performance. While IT internal integration has a greater positive effect on process innovation than on product innovation, IT market integration affects both types of innovations similarly. More results and their implication for firms operating in an emerging market context are discussed.

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