December 12, 2012

Program of Keynote Speeches

Date: Wednesday, 12 Dec. 2012
Room: 2F A.B Lecture Hall
Time: 09:30~10:30 am

Chair: **Prof. Sheng-Lung Peng**, National Dong Hwa University, Taiwan

Speaker: **Prof. Fedor V. Fomin**, University of Bergen, Norway

Title: Kernelization Algorithms

Abstract: Preprocessing or data reductions means reducing the input to something simpler by solving an easy part of the input and this is the type of algorithms used in almost every application. In spite of wide practical applications of preprocessing, a systematic theoretical study of such algorithms remains elusive. The framework of parameterized complexity can be used as an approach to analyse preprocessing algorithms. Input to parameterized algorithms include a parameter (in addition to the input) which is likely to be small, and this resulted in a study of preprocessing algorithms that reduce the size of the input to a pure function of the parameter(independent ofthe input size). Such type of preprocessing algorithms are called kernelization algorithms. In the talk we discuss some classical and new trends in the design of kernelization algorithms.

Time: 10:30~11:30 am

Chair: **Prof. Ruay-Shiung Chang**, National Dong Hwa University, Taiwan

Speaker: **Mr. Michael Wang**, Enterprise Architect, Oracle, USA

Title: A Mobile, Cloud, and Social-enabled Future

Abstract: During the presentation, I would like to share with all the audience the observations, factors driving new innovations that may change how people interact with technologies and how organizations operate, and update what Oracle is undertaking for those upcoming future.

Workshop on Information Literacy, e-Learning, and Social Media

Date: Wednesday, 12 Dec. 2012
Room: 3F 305.306.307
Session: Plenary (1:00~1:30 pm)

Chair: **Prof. Kun-Hung Huarng**, Feng Chia University, Taiwan

Topic: Information literacy and beyond

Speaker: Prof. An-Chi Liu

Session: Social Media and e-Learning (1:30~2:30 pm)

Chair: **Prof. An-Chi Liu**, Feng Chia University, Taiwan

1145   Challenges for Promoting the Decision-Making Processes Based on Spatial Data Analysis

        Elzbieta Malinowski

1193	Using Mobile Annotation System in Public Health Practice Course based on Project-Based Learning
	Ting-Ting Wu
1211	Using Facebook to Better Engage College Students in Learning
	Wei-Bin Lee, Chun-Wen Teng, Nien-Lin Hsueh, and Yung-Hui Li

Session: Information Literacy (2:45~4:15 pm)

Chair: **Prof. Elzbieta Malinowski**, University of Costa Rica, Costa Rica

1176	The Information Literacy and Beyond at Feng Chia University
	Kun-Huang Huarng
1126	A Bibliometric Analysis of the Theses and Dissertations on Information Literacy Published in the United States and Taiwan
	Pao-Nuan Hsieh, Tao-Ming Chuang, and Mei-Ling Wang
1146	Conceptualizing Citizen's Digital Literacy through Everyday Internet Use
	Mei-Mei Wu and Ying-Hsang Liu
1142	Can Internet usage positively or negatively affect interpersonal relationship?
	Chih-Hung Lai, Chunn-Ying Lin, Cheng-Hung Chen, Hwei-Ling Gwung, and Chia-Hao Li

Session: Panel Discussion (4:30~5:10 pm)

Chair: **Prof. Mei-Mei Wu**, National Taiwan Normal University, Taiwan

Panelists: **Prof. An-Chi Liu, Prof. Ruay-Shiung Chang, Prof. Kun-Hung Huarng, Prof. Mei-Mei Wu**

Workshop on Artificial Intelligence and Fuzzy Systems
Workshop on Database, Data Mining, and Information Retrieval

Date: Wednesday, 12 Dec. 2012

Room: 3F 315.316.317

Session: Database and Data Mining (1:00~2:30 pm)

Chair: **Prof. Arbee L.P. Chen**, National Cheng-chi University, Taiwan

1150	A Hybrid Prediction Algorithm for Traffic Speed Prediction
	Bo-Wei Huang, Kun-Wei Wang, Ling-Yin Wei, and Wen-Chih Peng
1149	Finding Leaders with Maximum Spread of Influence through Social Networks
	Tsung An Yeh, En Tzu Wang, and Arbee L.P. Chen
1029	Path Tree: Mining Sequential Patterns Efficiently in Data Streams Environments
	Guanling Lee, Kuo-Che Hung, and Yi-Chun Chen
1088	Feature Reduction and Selection for Automatic Image Annotation
	Guan-Bin Chen and Been-Chian Chien

Session: Data Mining and Evolutionary Computing (2:45~4:15 pm)

Chair: **Prof. Han-Ying Kao**, National Dong Hwa University, Taiwan

1062	Genetic-evolved Bayesian networks in a biomedical application
	Chih-Chiang Wei

1206	A Discriminative Multi-Objective Programming Method for Solving Network DEA
	Han-Ying Kao and Chieh-Yu Chan
1199	Mining High Utility Itemsets Based on the Pre-large Concept
	Chun-Wei Lin, Tzung-Pei Hong, Guo-Cheng Lan, Jia-Wei Wong,
	and Wen-Yang Lin
1033	Maximum Likelihood DOA Estimation with Sensor Position Perturbation Using Particle Swarm Optimization
	Jhih-Chung Chang and Chia-Yi Chen

Session: Computer Games (4:30~6:00 pm)

Chair: **Prof. Shi-Jim Yen**, National Dong Hwa University, Taiwan

1008	A New GPS Position Correction Method Based on Genetic Programming
	Jung-Yi Lin, Ming-Chih Tung, Chia-Hui Chang, Chao-Chung Liu,
	and Ju-Fu Peng
1082	Optimistic Heuristics for MineSweeper
	Olivier Buffet, Chang-Shing Lee, Woan-Tyng Lin, and Olivier Teytuad
1092	Learning a Move-Generator for Upper Confidence Trees
	Adrien Couetoux, Olivier Teytaud, and Hassen Doghmen
1118	Software Framework for Generic Game Development in CGDG
	Hao-Yun Liu, I-Chen Wu, Hao-Hua Kang, Ting-Fu Liao, and
	Lung-Pin Chen
1130	The Art of the Chinese Dark Chess Program DIABLE
	Shi-Jim Yen, Cheng-Wei Chou, Jr-Chang Chen, I-Chen Wu, and
	Kuo-Yuan Kao

Workshop on Computer Networks and Web Service/Technologies
Workshop on Parallel, Peer-to-Peer, Distributed, and Cloud Computing

Date: Wednesday, 12 Dec. 2012

Room: 3F 308.309

Session: Opening and Keynote (1:00~1:45 pm)

Chair: **Prof. Der-Jiunn Deng**, National Changhua University of Education

Speaker: **Prof. Chunming Rong**

Title: **Cloud Security and Service Accountability**

Abstract: Cloud Computing makes data truly mobile and a user can simply access a chosen cloud with any internet accessible device. In Cloud Computing, IT-related capabilities are provided as services, accessible without requiring detailed knowledge of the underlying technology. Thus, many mature technologies are used as components in Cloud Computing, but still there are many unresolved and open problems. Security in the cloud domain is considered as one of the top challenges. Cloud and IT service providers should be responsible for the data of their customers and users. However, accountability frameworks for distributed IT services is current still absent and makes it difficult for users to understand, influence and determine how their service providers honor their obligations. In the proposed EU A4Cloud

project, we will create solutions to support users in deciding and tracking how their data is used by cloud service providers. By combining methods of risk analysis, policy enforcement, monitoring and compliance auditing with tailored IT mechanisms for security, assurance and redress.

Session: Cloud Computing and Overlay Network (1:45~2:30 pm)

Chair: **Prof. Ming-Huang Guo**, Shih-Hsin University

1013   Dynamic Load Balancing in Cloud-based Multimedia System Using Genetic Algorithm
Chun-Cheng Lin and Der-Jiunn Deng

1075   Platform-as-a-Service Architecture for Parallel Video Analysis in Clouds
Tse-Shih Chen, Tsiao-Wen Huang, Liang-Chun Yin, Yi-Ling Chen, and Yi-Fu Ciou

1098   Construct Independent Spanning Trees on Chordal Rings with Multiple Chords
Shyue-Ming Tang

Session: Computer Networks and Web Service/Technologies (2:45~4:15 pm)

Chair: **Prof. Yeong-Sheng Chen**, National Taipei University of Education

1058   Cross-Layer-based Adaptive TCP Algorithm in 4G Packet Service LTE-Advanced Relaying Communications
Ben-Jye Chang and Yi-Hsuan Li

1065   A System of Publishing and Managing Contents in Multiple Web2.0 Websites
Jyun-Kai Huang, Shyan-Ming Yuan, Hung-Yu Chen, and Yuan Chang

1085   An InfO-based Content Sharing System for Small Communities
Yuan-Liang Tai, Shang-Rong Tsai, Cheng-Kang Wen, Kuo-Feng Ssu, and Y. S. Huang

1108   Hierarchical Deficit Round-Robin Packet Scheduling Algorithm
Min-Xiou Chen and Shih-Hao Liu

1184   IP Address Exchanging Scheme for Vehicle Ad hoc Networks
Chiu-Ching Tuan and Yi-Chao Wu

1187   A Web Service Selection Mechanism based on User Ratings and Collaborative Filtering
Chin-Chih Chang and Chu-Yen Kuo

Session: Parallel, Peer-to-peer, and Distributed Computing (4:30~6:00 pm)

Chair: **Prof. Chun-Cheng Lin**, National Chiao Tung University

1003   Correctness of Self-stabilizing Algorithms under the Dolev Model When Adapted to Composite Atomicity Models
Chih-Yuan Chen, Cheng-Pin Wang, Tetz C. Huang ,and Ji-Cherng Lin

1034   Efficiently Extracting Change Data from Column Oriented NoSQL Database
Yong Hu and Weiping Qu

1083   Energy-Efficient Scheduling Based on Reducing Resource Contention for Multi-Core Processors

Yan-Wei Chen, Mei-Ling Chiang,and Chieh-Jui Yang

1091   Efficient Parallel Knuth-Morris-Pratt Algorithm for Multi-GPUs with CUDA

Kuan-Ju Lin, Yi-Hsuan Huang, and Chun-Yuan Lin

1167   Approaches for Data Synchronization on Mobile Peer-to-Peer Networks

Chuan-Chi Lai and Chuan-Ming Liu

1168   Effective Processor Allocation for Moldable Jobs with Application Speedup Model

Kuo-Chan Huang, Tse-Chi Huang, Yuan-Hsin Tung, and Pin-Zei Shih

Workshop on Digital Content, Digital Life, and Human Computer Interface

Date: Wednesday, 12 Dec. 2012

Room: 3F 318.319

Session: Digital Content and Virtual Reality (1:00~2:30 pm)

Chair: **Prof. Der-Lor Way**, Taipei National University of Arts

1066   Virtual Multiple-Perspective Display using Pyramidal or Conical Showcase

Yu-Tsung Chiu and Mau-Tsuen Yang

1071   Stroke Rehabilitation via a Haptics-Enhanced Virtual Reality System

Shih-Ching Yeh, Si-Huei Lee, Jia-Chi Wang, Shuya Chen, Yu-Tsung Chen, Yi-Yung Yang, Huang-Ren Chen, Yen-Po Hung, Albert Rizzo, and Te-Lu Tsai

1084   Image-Based Wearable Tangible Interface

Jiung-Yao Huang, Yong-Zeng Yeo, Lin Huei, and Chung-Hsien Tsai

1124   The Creation of V-fold Animal Pop-up Cards from 3D Models Using a Directed Acyclic Graph

Der-Lor Way, Yong-Ning Hu, and Zen-Chung Shih

1140   MagMobile: Enhancing Social Interactions with Rapid View-Stitching Games of Mobile Devices

Da-Yuan Huang, Tzu-Wen Chang, Min-Lun Tsai, Chien-Pang Lin, Neng-Hao Yu, Mike Y. Chen, Yi-Ping Hung, and Chih-Hao Hsu

Session: Human Computer Interaction, Pattern Recognition, and Computer Vision (2:45~4:15 pm)

Chair: **Prof. Pau-Choo Chung**, National Cheng Kung University

1162   Computer-Vision Based Hand Gesture Recognition and Its Application in Iphone

Hsi-Chieh Lee, Che-Yu Shih, and Tzu-Miao Lin

1169   An Adaptive Video Program Recommender Based on Group User Profiles

Chun-Rong Su, Yu-Wei Li, Rui-Zhe Zhang, and Jiann-Jone Chen

1200   Automatic Dancing Assessment Using Kinect

Ta-Che Huang, Yu-Chuan Cheng, and Cheng-Chin Chiang

1204   A new view-calibrated approach for abnormal gait detection

Kuo-Wei Lin, Shu-Ting Wang, Pau-Choo Chung, and Ching-Fang Yang

1205   Modeling and Recognizing Action Contexts in Persons Using Sparse Representation

Kai-Ting Chuang, Jun-Wei Hsieh, and Yilin Yan