18th International Conference on
Software Engineering
and
Data Engineering
(SEDE-2009)

PROGRAM

June 22 - 24, 2009

Imperial Palace Hotel and Casino
Las Vegas, Nevada   USA

Sponsored by

International Society for
Computers and Their Applications

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18th International Conference on
Software Engineering and Data Engineering
(SEDE-2009)

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In cooperation with Winona State University, University of Houston-Clear Lake and the University of Nevada Reno

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Monday, June 22, 2009

All meeting rooms are located on the 4th Floor.

7:45 a.m. - 4:30 p.m.  REGISTRATION – Coffee, Tea, Pastries  (FUJI Foyer)

8:45 a.m. - 9:00 a.m.  WELCOME  (FUJI Room)

Dr. Narayan Debnath, Winona State University, USA
Dr. Sergiu Dascalu, University of Nevada, Reno, USA

9:00 a.m. – 10:00 a.m.  INVITED SPEAKER – Data Engineering

“Reflectance Imaging: A Simple Approach to Seeing Surface Detail”

Dr. Tom Malzbender
Senior Research Scientist
Media and Mobile Systems Lab
Hewlett-Packard Laboratories

Location:  FUJI Room, 4th Floor

10:00 a.m. – 10:30 a.m.  COFFEE BREAK

DATA ENGINEERING APPLICATIONS

Monday, June 22, 10:30 a.m. – 12:45 p.m., FUJI Room
Session Chair:  Dr. Donna Hudson, University of California, San Francisco

SESSION 1A:

1. Deletion Techniques for the ND-tree in Non-ordered Discrete Data Spaces
   Hyun J. Seok, Qiang Zhu (The University of Michigan, USA), Gang Qian (University of Central Oklahoma, USA), Sakti Pramanik (Michigan State University, USA) and Wen-Chi Hou (Southern Illinois University, USA)

2. Using Shape Patterns for Clustering Unstructured Text Documents
   Durga Toshniwal and Rishiraj Saha Roy (Indian Institute of Technology Rourkee, India)

3. Natural-Inspired Data Clustering:  A Hybridization between Ant Clustering and Particle Swarm Optimization
   Mohammed El-Telbany (Taif University, Saudi Arabia), Samah Rafat ( Ain Shams University, Egypt) and Sultan H. Aljahdali (Taif University, Saudi Arabia)

4. Gene Function Prediction
   Amal S. Perera (University of Moratuwa, Sri Lanka) and William Perrizo (North Dakota State University, USA)

5. The Electronic Medical Record: A Temporal Multimedia Database
   Donna L. Hudson and Maurice E. Cohen (University of California, San Francisco, USA)
SESSION 1B:

Monday, June 22, 10:30 a.m. – 12:45 p.m., SAMPAN Room
Session Chair: Dr. Wahab Abdul, Nanyang Technological University

1. Military Route Planning in Battle Field Simulations for a Multi-Agent System
   Sharad Sharma (Bowie State University, USA)

2. BCI++: A New Framework for Brain Computer Interface Application
   Paolo Perego, Luca Maggi, Sergio Parini and Giuseppe Andreoni (Politecnico
di Milano, Italy)

3. Denotational Semantics for Social Communication among Agents
   Alejandro Garcés, Ricardo Quirós, Miguel Chover, Hebert Peréz-Rosés (Jaume I
   University, Spain), Ianisse Quinzán and Pilar Espinosa (Universidad de Oriente, Cuba)

4. Using Mapping Relations for XML Schema Mediation
   Marwan Sabbouh, Daniel J. Hebert, Caleb Wan, Scott R. Bennett and Dan Potter (The
   MITRE Corporation, USA)

5. Processing Schema-Optimized XPath Filters by Deterministic Automata
   Panu Silvasti (Helsinki University of Technology, Finland), Seppo Sippu (University of
   Helsinki, Finland) and Eljas Soisalon-Soininen (Helsinki University of Technology, Finland)

12:45 p.m. – 2:30 p.m. LUNCH BREAK (on your own)

SESSION 2A:

Monday, June 22, 2:30 p.m. – 4:15 p.m., FUJI Room
Session Chair: Dr. Frederick C. Harris, Jr., University of Nevada, Reno

1. An Application for Tree Detection Using Satellite Imagery and Vegetation Data
   David T. Brown, Roger V. Hoang, Matthew R. Sgambati and Frederick C. Harris, Jr.
   (University of Nevada, Reno, USA and Desert Research Institute, USA)

2. Software Development Aspects of a Mobile Food Ordering System
   Hrishikesh Kulkami, Sergiu M. Dascalu and Frederick C. Harris, Jr. (University of Nevada,
   Reno, USA)

3. Student's Aid: A Touchscreen Device
   Ben Seelbinder and Sergiu M. Dascalu (University of Nevada, Reno, USA)

   Kelvin Parian, Joshua Hegie, Andrew Kimmel, Sergiu M. Dascalu and Frederick C. Harris,
   Jr. (University of Nevada, Reno, USA)

SESSION 2B:

Monday, June 22, 2:30 p.m. – 4:15 p.m., SAMPAN Room
Session Chair: Dr. Sharad Sharma, Bowie State University, USA

1. Towards a Change Propagation Process in Software Architecture
   Mohamed Oussama Hassan, Laurent Deruelle and Henri Basson (Université du Lille
   Nord de France, France)

2. A Hybrid Heuristic Approach To Optimize Rule-Based Software Quality Estimation
   Models
   Danielle Azar, Haidar M Harmanani and Rita Korkmaz (Lebanese American University,
   Lebanon)

3. Rearchitecting Meta-modeling Foundation: A Formal Approach
   Pooyan Jamshidi, Fereidoon Shams, Sedigheh Khoshnevis, R. Teimourzadegan and
   A. Nikravesh (Shahid Peheshti University, Iran)

4. A Metaheuristic to Solve a TravelingSalesman Problem
   Wu-Hsien Shen and Chwen-Tzeng Su (National Yulin University of Science, Taiwan)
Tuesday, JUNE 23, 2009

8:00 a.m. – 5:30 p.m. REGISTRATION – Coffee, Tea, Pastries

9:00 a.m. – 10:00 a.m. INVITED SPEAKER – Software Engineering
“Refinement and Optimization of Data-Flow Architectures”
Dr. Don Batory
Professor, Department of Computer Science
University of Texas at Austin, USA
Location: FUJI Room, 4th Floor

10:00 a.m. – 10:30 a.m. COFFEE BREAK

SESSION 3A: MODELING, UML, AND GRAPHS
Tuesday, June 23, 10:30 a.m. – 12:15 p.m., FUJI Room
Session Chair: Dr. Antoine Rollet, Université de Bordeaux, France

1. Modeling and Verification of Dynamic Behavior in UML Models: A Graph Transformation Approach
Elhillali Kerkouche (University of Oum, Algeria), Allaoua Chaoui (University of Constantine, Algeria), and El Bay Bourennane, Ouassila Labbani (University of Bourgogne, France)

2. Supporting Tool Reuse with Model Transformation
Zekai Demirezen, Yu Sun, Jeff Gray (University of Alabama at Birmingham, USA) and Frédéric Jouault (INRIA and EMN, France)

3. Composite Service MetaModel
Anthony A Hock-koon and Mourad Oussalah (University of Nantes, France)

4. Test Suites Effectiveness from Sequence Diagrams and Function Call Trees
Pranshu Gupta and David A Gustafson (Kansas State University, USA)

SESSION 3B: DATA MINING AND DATABASES
Tuesday, June 23, 10:30 a.m. – 12:15 p.m., SAMPAN Room
Session Chair: Dr. Amal Perera, North Dakota State University

1. Data Warehouse Development Using MDA and 2TUP
Moez Essaidi (Intelligence Power and Université Paris 13, France) and Aomar Osmani (Université Paris 13, France)

2. SQL-Guard Design Pattern
Ahmed A. Bahjat, Hamoud Al-Jamaan and Mohammad Al-Shayeb (King Fahd University of Petroleum and Minerals, Saudi Arabia)

3. Experimental Study on Item-based P-Tree Collaborative Filtering Algorithm for Netflix Prize
Tingda Lu, William Perrizo, Yan Wang, Gregory Wettstein and Amal Shehan Perera (North Dakota State University, USA)

4. An Improved Wave Planning Technique For Material-To-Man Order Picking Operation
Kemal Taljanovic (Archway Marketing Services, USA) and Adnan Salihbegovic (University of Sarajevo, Bosnia)
12:30 p.m. – 2:00 p.m.    CONFERENCE LUNCHEON and Awards Ceremony

LOCATION: PEARL ROOM, 4TH Floor

SESSION 4A:

SPECIAL SESSION ON APPLICATIONS IN SOFTWARE ENGINEERING AND DATA ENGINEERING - I
Tuesday, June 23, 2:15 p.m. – 3:45 p.m., FUJI Room
Session Chair: Dr. Narayan Debnath, Winona State University, USA

1. Robustness Testing on Composed Timed Systems
   Hacène Fouchal (Universite des Antilles et de Guyane, France), Antoine Rollet (Universite de Bordeaux, France) and Abbas Tarhini (Lebanese American University, Lebanon)

2. Speech Emotion Profiling for Inter and Intra-Cultural Assessment
   Norhaslinda Kamaruddin and Abdul Wahab (Nanyang Technological University, Singapore)

3. A Strategy to Derive RSL Specification from Feature Models
   Narayan Debnath (Winona State University, USA), Laura Felice, Maria Carmen Leonardi and Maria Virginia Mauco (Universidad Nacional del Centro, Argentina), and German A. Montejano, Daniel E. Riesco (Universidad Nacional de San Luis, Argentina).

4. Management Automation Specified by SPEM Work Breakdown Element using Workflow Technology
   Daniel E. Riesco, German A. Montejano (Universidad Nacional de San Luis, Argentina), Narayan Debnath (Winona State University, USA) and Manuel Perez Cota (Universidad de Vigo, Spain)

SOFTWARE SECURITY AND PROGRAMMING TECHNIQUES
Tuesday, June 23, 2:15 p.m. – 3:45 p.m., SAMPAN Room
Session Chair: Dr. Brahma Dathan, Metropolitan State University, USA

   Daniel D. Hein and Hossein Saiedian (University of Kansas, USA)

2. Checking for Liskov Substitution Principle Compliance in Java Programs
   Brahma Dathan (Metropolitan State University, USA)

3. Towards a Framework for Automated Random Testing of Aspect-Oriented Programs
   Reza Meimandi Parizi, Abdul Azim Abdul Ghani, Rusli Abdulla and Rodziah Binti Atan (University Putra Malaysia, Malaysia)

4. A Survey on Model Driven Software Development
   Cobra Rahmani, Mansour Zand, Harvey Siy and Satish M. Srinivasan (University of Nebraska at Omaha, USA)

3:45 p.m. – 4:00 p.m.    COFFEE BREAK
SPECIAL SESSION ON APPLICATIONS IN SOFTWARE ENGINEERING AND DATA ENGINEERING - II
Tuesday, June 23, 4:00 p.m. – 5:30 p.m., FUJI Room
Session Chair: Dr. Narayan Debnath, Winona State University, USA

SESSION 5A:

1. **Adoption of Technology Acceptance Model (TAM) to Electronic Commerce: A Statistical Meta-Analysis Approach**
   Ghassan Filimban (George Mason University, USA) and Sultan Aljahdali (Taif University, Saudi Arabia)

2. **Combination of a MANET Data Communication Protocol with a Service Discovery Protocol for Mobile Ad Hoc Networks in a Framework**
   Narayan Debnath (Winona State University, USA), Afsaneh Rahbar and Mehran Mohsenzadeh (Islamic Azad University, Iran)

3. **EEG Signals for Emotion Recognition**
   Abdul Wahab, Norhaslinda Kamaruddin and Lavan Palaniappan (Nanyang Technological University, Singapore)

4. **New Techniques and Algorithms for Text Steganography through Hindi Text**
   S. Changder (National Institute of Technology-Durgapur, India) and N. C. Debnath (Winona State University, USA)

DISTRIBUTED AND REAL-TIME SYSTEMS

SESSION 5B:

Tuesday, June 23, 4:00 p.m. – 5:30 p.m., SAMPAN Room
Session Chair: Dr. Boris S. Verkhovsky, New Jersey Institute of Technology, USA

1. **Optimizing Network Deployment of Formally-Specified Distributed Systems**
   Carleton Coffrin (Brown University, USA), Laurent D. Michel, Alexander A. Shvartsman, Elaine L. Sonderegger (University of Connecticut, USA), and Pascal Van Hentenryck (Brown University, USA)

2. **(m,k)-frame: A Method to Control the Quality of Service in Distributed Multimedia Systems**
   Bechir Alaya, Claude Duvallet and Bruno Sadeg (LITIS, UFR des Sciences et Techniques, France)

   Boris S. Verkhovsky and Roberto D. Rubino (New Jersey Institute of Technology, USA)

4. **Specifying Requirements for Real-Time Systems**
   Satish Srinivasan, Scott Lancaster, Mansour Zand and Cobra Rahmani (University of Nebraska at Omaha, USDA)
9:00 a.m. – 12:00 noon  REGISTRATION – Coffee, Tea, Pastries

**MACHINE LEARNING**
Wednesday, June 24, 9:30 a.m. – 12:00 noon, FUJI Room
Session Chair: Dr. James McCaffrey, Microsoft MSDN / Volt VTE, USA

1. **Evolutionary Nearest Neighbour Classification Framework**
   Amal S. Perera, D. G. Niroshinie Dayaratne (University of Moratuwa, Sri Lanka) and William Perrizo (North Dakota State University, USA)

2. **The Universality of Nearest Neighbor Sets in Classification and Prediction**
   William Perrizo, Gregory Wettstein, Amal Shehan Perera and Tingda Lu (North Dakota State University, USA)

3. **An Empirical Study of the Effectiveness of Partial Antirandom Testing**
   James D McCaffrey (Microsoft MSDN / Volt VTE, USA)

4. **A Machine Learning Approach for Watermarking in Dithered Halftone Images**
   Ching-Tang Hsieh, Yeh-Kuang Wu, Kuo-Ming Hung and Chih-Yu Chang (Tamkang University, Taiwan)

**FACE RECOGNITION**
Wednesday, June 24, 9:30 a.m. – 12:00 noon, SAMPAN Room
Session Chair: Dr. Ching-Tang Hsieh, Tamkang University, Taiwan

1. **A Lip Segmentation Using New Threshold Method Towards An Automatic Speech Recognition System**
   Ching-Tang Hsieh, Chih-Yu Chang (Tamkang University, Taiwan) and Min-Nan Hsiao (De Lin Institute of Technology, Taiwan)

2. **Facial Image Aging Synthesis Based on the Log-Gabor Wavelet**
   Ching-Tang Hsieh, Yu-Cheng Lee (Tamkang University, Taiwan) and Min-Nan Hsiao (De Lin Institute of Technology, Taiwan)

3. **Face Recognition Based Presentation Checking System**
   Ching-Tang Hsieh, Chang-Chu Chen (Tamkang University, Taiwan) and Min-Nan Hsiao (De Lin Institute of Technology, Taiwan)

4. **PSO accelerated 3D face angle searching system for face recognition**
   Ching-Tang Hsieh, Meng-Shian Shih (Tamkang University, Taiwan) and Min-Nan Hsiao (De Lin Institute of Technology, Taiwan)