

17<sup>th</sup> International Conference on  
**Software Engineering  
and  
Data Engineering**  
(SEDE-2008)

**PROGRAM**

June 30 - July 2, 2008

Omni Los Angeles Hotel at California Plaza  
Los Angeles, California USA

Sponsored by



International Society for  
Computers and Their Applications

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Cary, NC 27511-4216

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# 17<sup>th</sup> International Conference on Software Engineering and Data Engineering (SEDE-2008)

## **SPONSOR**

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### **International Society for Computers and Their Applications (ISCA)**

In cooperation with: **Winona State University, University of Houston-Clear Lake and the University of Texas at Dallas**

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**Program Co-Chairs:** Hisham Al-Mubaid, University of Houston-Clear Lake, USA  
Rym Zalila-Wenkstern, University of Texas at Dallas, USA

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Qinghua Zou, Microsoft Research, USA

**Monday, June 30, 2008**

**All meeting rooms are located on the 2<sup>nd</sup> Floor.**

**7:45 a.m. - 6:00 p.m. REGISTRATION – Coffee, Tea, Pastries (Foyer)**

**8:45 a.m. - 9:00 a.m. WELCOME (Crocker Room, 2<sup>nd</sup> Floor)**

**Dr. Narayan Debnath, Winona State University, USA**

**Dr. Rym Zalila-Wenkstern, University of Texas at Dallas, USA**

**9:00 a.m. – 10:00 a.m. INVITED SPEAKER – Software Engineering**

**“COMPUTER and SOFTWARE ENGINEERING:  
What was, what is, and what will be”**

**Dick B. Simmons, P. E., Ph.D., IEEE Fellow  
Texas A&M University**

**Location: Crocker Room, 2<sup>nd</sup> Floor**

**10:00 a.m. – 10:30 a.m. COFFEE BREAK**

**SESSION 1A:**

**DATA ENGINEERING AND DATA MINING**

Monday, June 30, 10:30 a.m. – 12:30 p.m., Crocker Room, 2<sup>nd</sup> Floor  
Session Chair: Dr. William Perrizo, North Dakota State University

- 1. Data Mining Classification Using Parisot Correlation**  
William K. Perrizo and Gregory H. Wettstein (North Dakota State University, USA)
- 2. Bayesian Classification in Combinatorial Game Theory**  
David Hooks and Qin Ding (East Carolina University, USA)
- 3. Vertical Business Intelligence Classification**  
William K. Perrizo and Gregory H. Wettstein (North Dakota State University, USA)
- 4. Document Clustering using Word Sense Disambiguation**  
M. S. Mostafa, M. H. Haggag and W. H. Gomaa (Helwan University, Egypt)
- 5. Layout Analysis and Classification using Genetic Algorithm**  
Farnaz Fotrousi and Morteza Analoui (Iran University of Science and Technology, Iran)

**SESSION 1B:****SPECIAL SESSION: APPLICATIONS IN SOFTWARE ENGINEERING and DATA ENGINEERING I**

Monday, June 30, 10:30 a.m. – 12:00 p.m., Hershey Room, 2<sup>nd</sup> Floor  
Session Chair: Dr. Narayan Debnath, Winona State University

1. **Prototype Details of the Smartphone-Based Researcher's Companion Software (RCS)**  
Brian Tackitt, Muhanna Muhanna and Sergiu Dascalu (University of Nevada, Reno, USA)
2. **How to Measure Testing Results**  
M. Burgin (UCLA, USA) and N. Debnath (Winona State University, USA)
3. **Data Reduction Algorithm Based on Gaussian Image Estimation**  
E. A. Zanaty, Sultan Aljahdali (TAIF University, Saudi Arabia) and Narayan Debnath (Winona State University, USA)

**12:30 p.m. – 2:00 p.m. LUNCH BREAK** (on your own)

**SESSION 2A:****SPECIAL SESSION: APPLICATIONS IN SOFTWARE ENGINEERING and DATA ENGINEERING II**

Monday, June 30, 2:00 p.m. – 4:00 p.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Mark Burgin, UCLA

1. **TouchTabs: Software Prototype for Guitar Music Composition using Touch Screens**  
Matt Whipple and Sergiu Dascalu (University of Nevada, Reno, USA)
2. **Web Cache Adaptive Replacement Policy by LRU and LFU**  
Wenyng Feng and Hua Chen (Trent University, Canada)
3. **Improving Fuzzy Algorithms for Automatic Magnetic Resonance Image Segmentation**  
E. A. Zanaty, Sultan Aljahdali (Taif University, Saudi Arabia) and Narayan Debnath (Winona State University, USA)

**SESSION 2B:****MEDICAL and BUSINESS APPLICATIONS**

Monday, June 30, 2:00 p.m. – 4:00 p.m., Hershey Room, 2nd Floor  
Session Chair: Dr. Wahab Abdul, Nanyang Technological University

1. **Pattern Recognition in Medical Diagnosis, Prognosis, and Treatment**  
D. L. Hudson and M. E. Cohen (University of California, San Francisco, USA)
2. **Neuro-Fuzzy ICU Ventilator Patients Modeling**  
Abdul Wahab, Quek H. C. and Luah A. H. (Nanyang Technological University, Singapore)
3. **Towards Automatic Integration of the Business-Data Layers in Enterprise-Systems**  
M. Balaban (Ben-Gurion University of the Negev, Israel) and L. Limonad (Ben-Gurion University of the Negev, Israel and University of British Columbia, Canada)
4. **A Model for Accounting Standards and its Applications**  
Pierre M. Teller (University of Nice, France)

**4:00 p.m. – 4:30 p.m. COFFEE BREAK**

**SESSION 3A:****APPLICATIONS: FEATURE EXTRACTION and NLP**

Monday, June 30, 4:30 p.m. – 6:30 p.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Kam-Hoi Cheng, University of Houston

1. **Using Moments for Feature Extraction from Time Series Data**  
Durga Toshniwal (Indian Institute of Technology Rourkee, India)
2. **A Multi-Dimensional Data Organization for Natural Language Processing**  
Waleed Faris and Kam-Hoi Cheng (University of Houston, USA)
3. **Features Extraction for Speech Emotion**  
Norhaslinda Kamaruddin and Abdul Wahab (Nanyang Technological University, Singapore)
4. **Reducing Instrumentation Intrusion for Coverage and Reconnaissance**  
Dennis Edwards and Sharon Simmons (University of West Florida, USA)

**SESSION 3B:****SOFTWARE ENGINEERING**

Monday, June 30, 4:30 p.m. – 6:30 p.m., Hershey Room, 2nd Floor  
Session Chair: Dr. Jean-Louis Boulanger, U. of Technology of Compiegne

1. **An Example of Requirements Engineering in a Model-based Methodology for Embedded Automotive Software**  
Jean-Louis Boulanger and Vãn Quang Dao (University of Technology of Compiegne, France)
2. **Checking Design Heuristics Violations for Aspect-Oriented Software and Object-Oriented Software**  
Mathupayas Thongmak and Pornsiri Muenchaisri (Chulalongkorn University, Thailand)
3. **Use of Ontologies in Software Engineering**  
Emdad Ahmed (Wayne State University, USA)
4. **gRUP- A Globalized Approach to Software Engineering**  
Amr El-Kadi and Omar Bahy Badreddin (The American University in Cairo, Egypt)

**Tuesday, JULY 1, 2008**

**8:00 a.m. – 6:00 p.m. REGISTRATION – Coffee, Tea, Pastries**

**9:00 a.m. – 10:00 a.m. INVITED SPEAKER**

**“THE ENGINEERING OF SCIENCE”**

**D. S. Parker, Ph.D.  
University of California at Los Angeles (UCLA)**

**Location: Crocker Room, 2<sup>nd</sup> Floor**

**10:00 a.m. – 10:30 a.m. COFFEE BREAK**

**SESSION 4A:**

**SOFTWARE AGENT and SOFTWARE MEASUREMENTS**

Tuesday, July 1, 10:30 a.m. – 12:30 p.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Robert Fournay, South Dakota State University

- 1. Software Agents Oriented Approach To Warehouse Management Systems Design**  
Kemal Taljanovic (Archway Marketing Services, USA) and Adnan Salihbegovic (University of Sarajevo, Bosnia)
- 2. AVATARSIM: A Multi-Agent System for Emergency Evacuation Simulation**  
Sharad Sharma (Bowie State University, USA)
- 3. Torbit: an Open Source Flaw Measurement Tool Suite**  
Robert S. Fournay and Austin D. Hanson (South Dakota State University, USA)
- 4. An Algebraic Query Method for Static Program Analysis and Measurement**  
Hamoun Ghanbari and Constantinos Constantinides (Concordia University, Canada)

**SESSION 4B:**

**SPECIAL SESSION: APPLICATIONS IN SOFTWARE ENGINEERING and DATA ENGINEERING III**

Tuesday, July 1, 10:30 a.m. – 12:00 p.m., Hershey Room, 2<sup>nd</sup> Floor  
Session Chair: Dr. Narayan Debnath, Winona State University

- 1. Structural Organization of Temporal Databases**  
M. Burgin (UCLA, USA)
- 2. An Approach to Bengali Text Steganography**  
S. Changder (National Institute of Technology, India) and N. C. Debnath (Winona State University, USA)
- 3. Facility Design using Iterative Heuristic Algorithm**  
Rekha Bhowmik (Sam Houston State University, USA) and Ilhyun Lee (The University of Texas of the Permian Basin, USA)

**12:30 p.m. – 2:30 p.m. CONFERENCE LUNCHEON  
and Awards Ceremony**

**LOCATION: NOE' RESTAURANT, 3<sup>rd</sup> Floor**

**SESSION 5A:**

**SOFTWARE DEVELOPMENT**

Tuesday, July 1, 2:30 a.m. – 4:00 p.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Osman Hegazy, Cairo University

1. **RT3-TUCS: How to Build a Certifiable and Safety Critical Railway Application with UML Notation**  
Jean-Louis Boulanger (University of Technology of Compiègne, France)
2. **Early Development of Graphical User Interface (GUI) in Agile Methodologies**  
Caroline Labib, Ehab Hassanein and Osman Hegazy (Cairo University, Egypt)
3. **Alternative Methods in Proving Loop Termination**  
Tennyson X. Chen and Martin D. Meyer, RTI International, USA)
4. **Applying Service Oriented Architecture on Enterprise Resource Planning Environment**  
Yahia Zakaria Rabie, Ehab Hassanein and Osman Hegazy (Cairo University, Egypt)

**SESSION 5B:**

**DATA STRUCTURE, DATABASE and XML**

Tuesday, July 1, 2:30 a.m. – 4:00 p.m., Hershey Room, 2nd Floor  
Session Chair: Dr. Min Song, Old Dominion University

1. **Metriized Small World Properties Based Data Structure**  
V. Krylov, A. Logvinov, A. Ponomarenko (MERA Labs, Russia) and D. Ponomarev (MERA Group, Russia)
2. **Learning Bayesian Network over Distributed Databases Using Majority-based Method**  
Sachin Shetty, Min Song (Old Dominion University, USA), Youjun Yang (Qingdao University, China), and Mary Mathews (Old Dominion University, USA)
3. **System Entity Structure for XML Meta Data Modeling; Application to the US Climate Normals**  
Saehoon Cheon, Doohwan Kim (RTSync Corp., USA) and Bernard P. Zeigler (The University of Arizona, USA)

**4:00 p.m. – 4:30 p.m. COFFEE BREAK**

**SESSION 6A:****WEB SERVICES and WEB-BASED APPLICATIONS**

Tuesday, July 1, 4:30 p.m. – 6:30 p.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Ingrid van Coppenhagen, University of South Africa

1. **Dynamic Selection of Web Services Using QoS Constraints in BPEL**  
Erdogan Dogdu and Omer Mescigil (TOBB University of Economics and Technology, Turkey)
2. **Software Security Analysis and Assessment for the Web-Based Applications**  
Yong Wang, William M. Lively and Dick B. Simmons (Texas A&M University, USA)
3. **Web Software Traffic Characteristics and Failure Prediction Model Selection**  
Yong Wang, William M. Lively and Dick B. Simmons (Texas A&M University, USA)
4. **Design of a Three-Tiered Visual C# .NET Web Form**  
I.H.M. van Coppenhagen (University of South Africa, South Africa)

**SESSION 6B:****MOBILE SYSTEMS and APPLICATIONS**

Tuesday, July 1, 4:30 p.m. – 6:00 p.m., Hershey Room, 2nd Floor  
Session Chair: Dr. Ling Liu, Georgia Institute of Technology

1. **Energy-Efficient Processing of Spatial Alarms on Mobile Clients**  
Anand Murugappan and Ling Liu (Georgia Institute of Technology, USA)
2. **A Novel Architecture for Mobile Distributed Trie Hashing System**  
A. Bennaceur (INRIA, France), DE. Zegour and WK. Hidouci, INI, Algeria)
3. **An Extended MD-tree with Internal Leaf for Efficient Management of Moving Objects**  
Hiroyuki Dekihara (Hiroshima International University, Japan) and Yasuaki Nakamura (Technobits Co., Ltd., Japan)

**Wednesday, JULY 2, 2008**

8:30 a.m. - REGISTRATION – Coffee, Tea, Pastries

**SESSION 7A:****MULTIMEDIA and PARALLEL APPLICATIONS**

Wednesday, July 2, 9:30 a.m. – 11:00 a.m., Crocker Room, 2nd Floor  
Session Chair: Dr. Rym Zalila-Wenkstern, University of Texas at Dallas

1. **Load Balancing in PIC Parallel Implementation**  
Abdelmageed Elsadek Abdelrazek (College of Business Administration, Saudi Arabia)
2. **Domical Cooperative Caching: A Novel Caching Technique for Streaming Media in Wireless Home Networks**  
Shahram Ghandeharizadeh and Shahin Shayandeh (University of Southern California, USA)
3. **Queueing-Theoretic Approach to Software Resource Allocation**  
Arash Zaryabi, Torsten Bergander, A. Ben Hamza (Concordia University, Canada) and Nolwen Mahe (SAP Labs Canada)