



SEDE 2010

June 16-18, 2010

San Francisco Fisherman's Wharf
San Francisco, California, USA

The 19th SEDE Conference is interested in gathering researchers and professionals in the domains of Software Engineering and Data Engineering to present and discuss high-quality research results and outcomes in their fields. SEDE 2010 aims at facilitating cross-fertilization of ideas in Software and Data Engineering, and hence especially encourages high-quality research integrating both domains.

Recent trends in computing have shown a growing need for the development of distributed, decentralized computing systems that are resilient and self-healing. This year, SEDE will put a special emphasis on pervasive, adaptive computing. Hence we encourage research papers dealing with the process definition, requirements specification, modeling, design, and management of distributed, adaptive, data-intensive systems. Applied case studies will report on exemplary solutions deployed in industries such as aerospace, telecommunications, and military.

In addition to the special topic, the conference encourages research and discussions of broader issues on software and data engineering including, but not limited to:

Software Engineering

- Software Requirements Engineering
- Formal Specifications
- Software Verification and Model Checking
- Model-Based Methodologies
- Software Quality and Software Metrics
- Software Architecture and Design
- Software Testing
- Service- and Aspect-Oriented Techniques
- Agent-Based Software Systems
- Internet and Information Systems Development
- Software Visualization
- Software Development Tools
- Software Processes
- Project Management
- Human-Computer Interaction
- Software Engineering Education
- Applications and Case Studies

Data Engineering

- Distributed, Parallel, and Peer-to-Peer Databases
- Semi-Structured Data and XML Databases
- Data Integration, Interoperability, and Metadata
- Data Mining: Traditional, Large-Scale, and Parallel
- Ubiquitous Data Management and Mobile Databases
- Data Privacy and Security
- Scientific and Biological Databases and Bioinformatics
- Data Grids, Data Warehousing, OLAP
- Temporal, Spatial, Sensor, and Multimedia Databases
- Taxonomy and Categorization
- Pattern Recognition, Clustering, and Classification
- Knowledge Management and Ontologies
- Query Processing and Optimization
- Data Structures
- Database Applications and Experiences
- Web Data Management and Deep Web

SEDE recognizes excellence by means of the *Best Paper Award* made to an outstanding submission presented at the conference. In addition, selected papers from SEDE-2010 will be considered for a special issue of a journal publication.

Submission Procedures

Papers will be accepted ONLY BY ELECTRONIC SUBMISSION in PDF format. Please include a cover page containing title, author's name(s), address, affiliation, email address, telephone number and topic area. In cases of multiple authors, all correspondence will be sent to the first author unless otherwise requested. All submissions must be uploaded through this web site by **March 7, 2010**.

The submitted manuscript should closely reflect the final paper as it will appear in the proceedings, which will be a maximum of 6 pages (+2 pages with additional page fees) in ISCA format: <http://www.isca-hq.org/sample-isca-manuscript-format.pdf>. If you encounter any difficulties during submission or if you require further information, please contact: isca@ipass.net

Important Dates

Paper Submission Deadline: **March 7, 2010**
Notification of Acceptance: **April 23, 2010**
Registration and Camera-ready Manuscript: **May 12, 2010**

Conference Chair

Narayan Debnath
Computer Science Department
Winona State University
Minnesota, USA
+1 (507) 457-5261
ndebnath@winona.edu

Program Co-Chair

Rym Zalila-Wenkstern
Computer Science Department
University of Texas-Dallas
Texas, USA
+1 (972) 883-2091
rmili@utdallas.edu

Program Co-Chair

Imad Rahal
Computer Science Department
College of St Benedict & St John's University
Minnesota, USA
+1 (320) 363-2837
irahal@csbsju.edu

19th International Conference on
**Software Engineering
and Data Engineering
(SEDE-2010)**

PROGRAM

June 16-18, 2010

Hilton San Francisco Fisherman's Wharf
San Francisco, CA USA

Sponsored by



**International Society for
Computers and Their Applications**

975 Walnut Street, Suite 132
Cary, NC 27511-4216

Phone: (919) 467-5559; Fax: (919) 467-3430; E-mail: isca@ipass.net

19th International Conference on Software Engineering and Data Engineering (SEDE-2010)

SPONSOR

International Society for Computers and Their Applications (ISCA)
In cooperation with Winona State University, University of Texas at Dallas
and the College of St Benedict | St John's University

General Chair: Narayan Debnath, Winona State University, USA
Program Co-Chairs: Imad Rahal, College of St Benedict | St John's University, USA
Rym Zalila-Wenkstern, University of Texas-Dallas, USA

International Program Committee

Abidin, Taufik, Syiah Kuala Univ., Banda Aceh, Indonesia
Abran, Alain, Univ. du Quebec, Canada
Al-Mubaid, Hisham, Univ. of Houston-Clear Lake, USA
Amyot, Daniel, Univ. of Ottawa, Canada
Belkhatir, Nouredine, Univ. of Grenoble, France
Burgin, Mark, Univ. of California-LA, USA
Cooper, Kendra, Univ. of Texas at Dallas, USA
Cuzzocrea, Alfredo, ICAR-CNR & Univ. of Calabria, Italy
Dascalu, Sergiu, Univ. of Nevada-Reno, USA
Ding, Qin, East Carolina Univ., USA
Dong, Aijuan, Hood Univ., USA
Dustdar, Schahram, Univ. of Technology Vienna, Austria
Haddad, Hisham, Kennesaw State Univ., USA
Hamer, George, South Dakota State Univ., USA
Hammerschmidt, Beda, Oracle, USA
Haraty, Ramzi, Lebanese American Univ., Lebanon
Harris, Frederick C, Univ. of Nevada-Reno, USA
Heroux, Mike, Sandia National Laboratories, USA
Jiang, Li, The Univ. of Adelaide, Australia
Kamel, Ahmad, Concordia College, USA
Kongmunvattana, Angkul, Columbus State Univ., USA
Kwok-Bun, Yue, Univ. of Houston-Clear Lake, USA
Mansour, Nashat, Lebanese American Univ., Lebanon
Mendes, Emilia, Univ. of Auckland, New Zealand
Nikolaidou, Mara, Univ. of Athens, Greece

Perrizo, William, North Dakota State Univ., USA
Pheanis, David, Arizona State Univ., USA
Ren, Dongmei, IBM San Jose, USA
Sharma, Sharad, Bowie State Univ., USA
Tian, Jeff, Southern Methodist Univ., USA
Toshniwal, Durga, Indian Inst. of Technology-Roorkee, India
Tsihrantzis, George, Univ. of Piraeus, Athens, Greece
Wahab, Abdul, Islamic Univ., Malaysia
Wang, Elizabeth, Waynesburg Univ., USA

Additional Reviewers

Fotouhi, Farshad, Wayne State Univ., USA
Hill, Tom, Univ. of Texas-Dallas, USA
Krebsbach, Stephen, Dakota State Univ., USA
Kuiper, Dane, Univ. of Texas-Dallas, USA
Leask, Gary, Univ. of Texas-Dallas, USA
McMahon, Michael Jr., Univ. of Nevada-Reno, USA
Oladimeji, Ebenezer, Univ. of Texas-Dallas, USA
Samarakoon, Ravindya, Univ. of Texas-Dallas, USA
Steel, Travis, Univ. of Texas-Dallas, USA
Suppakul, Sam, Univ. of Texas-Dallas, USA
Xu, Xiaofeng, Xiamen Univ., China

Wednesday, June 16, 2010

MEETING ROOMS LOCATED ON 1st FLOOR

8:00 a.m. - 6:00 p.m. REGISTRATION – Coffee/tea/pastries – SONOMA Foyer

8:45 a.m. - 9:00 a.m. WELCOME - Sonoma I

**Rahal, College of St Benedict | St John's University, USA
Rym Zalila-Wenkstern, University of Texas-Dallas, USA**

9:00 a.m. – 10:00 a.m. KEYNOTE SPEAKER

**Dr. Prem Devanbu
University of California at Davis**

“Fair and Balanced? Bias in Bug-fix Datasets”

Location: SONOMA I, 1st Floor

10:00 a.m. – 10:30 a.m. COFFEE BREAK

SESSION 1A:

DATABASES AND DATA WAREHOUSES

Wednesday, June 16, 10:30 a.m. - 12:30 p.m., Sonoma I
Session Chair: Dr. Edward T. Hammerand, Arkansas State University

- 1. BigCube: A Metamodel for Managing Multidimensional Data**
Ganesh Viswanathan and Markus Schneider (University of Florida, USA)
- 2. Methods on Identifying Data Anomalies in a Normalized Database**
Tennyson X. Chen, Martin D. Meyer, Nanthini Ganapathi, Sean Liu, and Jon Cirella (RTI International, USA)
- 3. Top-Down Approach on Concurrent Access to the B-Link Tree**
Edward T. Hammerand and Hung-Chi Su (Arkansas State University, USA)
- 4. Comparison of SQL Injection Detection and Prevention Tools based on Attack Type and Deployment Requirements**
Atefeh Tajpour, Maslin Masrom, Mohammad JorJor Zadeh Shooshtari, and Hossein Rouhani Zeidanloo (University Technology Malaysia, Malaysia)

SESSION 1B:

SOFTWARE ARCHITECTURE AND DESIGN

Wednesday, June 16, 10:30 a.m. - 12:30 p.m., Sonoma II
Session Chair: Dr. Mourad Oussalah, University of Nantes

- 1. Reasoning about Safety during Software Architecture Design**
Tacksoo Im, Soujanya Vullam, and John D. McGregor (Clemson University, USA)
- 2. A Change Impact Analysis Process for Distributed Software Architecture Evolution**
Laurent Deruelle, Mohamed Oussama Hassan, and Henri Basson (Université du Lille Nord de France, France)
- 3. Locating Defects in Software Architectures Through Debugging**
Kyungsoo Im and John D. McGregor (Clemson University, USA)
- 4. An Optimum Selection of Enterprise Service Bus for DODAF Based Defense Systems**
Abdullah S. Alghamdi (King Saud University, Saudi Arabia)

12:30 p.m. – 2:00 p.m. **LUNCH BREAK ON OWN**

SESSION 2A:

DATA MINING AND APPLICATIONS

Wednesday, June 16, 2:15 p.m. - 4:15 p.m., Sonoma I

Session Chair: Dr. William Perrizo, North Dakota State University

1. **Using Metrics to Quantify Similarity in Source Code: An Empirical Study Using VOCS**
Jeremy Iverson, James Schnepf, and Imad Rahal (College of Saint Benedict's / Saint John's University, USA)
2. **Mining Redundant Industrial Alarm Occurrences with Association Rules Extraction and Complex Networks Modeling**
Leandro Pflieger de Aguiar, Virgilio A. F. de Almeida and Wagner Maira, Jr. (University of Minas Gerais, Brazil)
3. **A Web-based Interactive Data Visualization System for Outlier Subspace Analysis**
Dong Liu, Qigang Gao (Dalhousie University, Canada), Hai Wang (Saint Mary's University, Canada), and Ji Zhang (University of Southern Queensland, Australia)
4. **Unsupervised Identity Application Fraud Detection using Rule-based Decision Tree**
Amany M. Abdelhalim and Issa Traore (University of Victoria, Canada)

SESSION 2B:

SERVICES AND OPEN PLATFORMS

Wednesday, June 16, 2:15 p.m. - 4:15 p.m., Sonoma II

Session Chair: Dr. Muhammad Sulayman, The University of Auckland

1. **Toward the Definition of a Many-to-Many Service Discovery Approach**
Anthony Hock-Koon and Mourad Oussalah (University of Nantes, France)
2. **Metamodeling User Interfaces and Services for Composition Considerations**
Audrey Occello, Cédric Joffroy, Anne-Marie Dery-Pinna, Philippe Renevier, and Michel Riveill (University of Nice Sophia-Antipolis, France)
3. **Managing API Evolution for Open Software Platforms**
Hyun Cho (University of Alabama, USA), Eunyoung Kim (Samsung Electronics Co., Ltd, Korea), and Jeff Gray (University of Alabama, USA)
4. **ARIS Software: Envision Architecture Expansion Case Study**
Christina N. Meyers (ARIS Software LLC, USA)

4:15 p.m. – 4:30 p.m. **Coffee Break**

SESSION 3A:

BIOINFORMATICS

Wednesday, June 16, 4:30 p.m. - 6:00 p.m., Sonoma I

Session Chair: Dr. Imad Rahal, College of St. Benedict & St. John's University

1. **A Novel Combinatorial Score for Feature Selection with P-Tree in DNA Microarray Data Analysis**
Yan Wang, Tingda Lu, and William Perrizo (North Dakota State University, USA)
2. **Improving Start Codon Prediction Accuracy Using Naive Bayesian Classification**
Sean R. Landman and Imad Rahal (College of St. Benedict / St. John's University, USA)
3. **A Case Study in Clinical Data Management for Cancer Proteomics**
Ketaki Shirke, John A. Springer, Erik S. Gough, Ali Roumani, Catherine P. Riley, and Charles Buck (Purdue University, USA)

SESSION 3B:

SOFTWARE TESTING

Wednesday, June 16, 4:30 p.m. - 5:30 p.m., Sonoma II

Session Chair: Dr. Narayan Debnath, Winona State University and
Dr. Mark Burgin, UCLA

1. **On Software Test Estimate and Requirement Tracking**
Jing-Chiou Liou (Kean University, USA)
2. **Maximizing GUI Test Coverage Through Particle Swarm Optimization**
Abdul Rauf, Naveed Kazim, Sajid Anwar, Shafiq-Ur Rehman, and Arshad Ali Shahid
(National University of Computer & Emerging Sciences, Islamabad, Pakistan)

Thursday, June 17, 2010

8:30 a.m. – 6:30 p.m. REGISTRATION – Coffee/tea/pastries – SONOMA Foyer

9:00 a.m. – 10:00 a.m. KEYNOTE SPEAKER

Dr. Michael J. Franklin
University of California, Berkeley

**“Solving the Scalability Dilemma with Clouds,
Crowds, and Algorithms”**

Location: SONOMA I, 1st Floor

10:00 a.m. – 10:30 a.m. COFFEE BREAK

SESSION 4A:

SOFTWARE REQUIREMENTS

Thursday, June 17, 10:30 a.m. - 12:00 p.m., Sonoma I

Session Chair: Dr. Jukka Ojasalo, Laurea University of Applied Sciences

- 1. Specifying Components with Compositional Patterns, LOTOS and Design By Contract**
Abdelhafid Zitouni, Mahmoud Boufaida (Mentouri University of Constantine, Algeria),
and Lionel Seinturier (University of Lille, France)
- 2. Towards a Model for Dealing with Aspect Interactions at Requirement Phase**
Amel Boubendir (University of Skikda, Algeria) and Allaoua Chaoui (University Mentouri
Constantine, Algeria)
- 3. Lessons from a Pilot Study for Developing a Tool-kit that Contingently Supports
Teamwork**
Virallikattur Subramanian Dhenesh (University of South Australia, Australia)

SESSION 4B:

**SPECIAL SESSION:
APPLICATIONS IN SOFTWARE ENGINEERING
AND DATA ENGINEERING I**

Thursday, June 17, 10:30 a.m. - 12:00 p.m., Sonoma II

Session Chair: Dr. Narayan Debnath, Winona State University

- 1. An Object Oriented Programming Platform for Ontology Based KMS**
Baisakhi Chakraborty (National Institute of Technology Durgapur, India), Ranjan Kumar
Maji (Jadavpur University, India), and D. Ghosh (National Institute of Technology
Durgapur, India)
- 2. A Framework of Network Forensics System Based on IXP2850**
Jin Zhang (Hainan University, China) and Roger Lee (Central Michigan University,
USA)
- 3. Automating Web Data Model: Conceptual Design to Logical Representation**
Abhijit Sanyal (IBM India Pvt. Ltd, India), Anirban Sarkar (National Institute of
Technology - Durgapur, India), Sankhayan Choudhury (University of Calcutta, India),
and Narayan Debnath (Winona State University, USA)

12:15 p.m. – 2:00 p.m. CONFERENCE LUNCHEON

LOCATION: CASTAGNOLA'S RESTAURANT

**(Walk out hotel and turn right onto Jones - walk straight,
Castagnola's is at the end of Jones Street - 1 1/2 blocks)**

SESSION 5A:

DATA ENGINEERING APPLICATIONS I

Thursday, June 17, 2:15 p.m. - 4:15 p.m., Sonoma I

Session Chair: Dr. Imad Rahal, College of St. Benedict & St. John's University

1. **Metadata Services for Distributed Event Stream Processing Agents**
Mahesh B. Chaudhari and Suzanne W. Dietrich (Arizona State University, USA)
2. **A Recycle-Based Strategy to Modernize Data-Intensive Enterprise Applications for Multi-Tenancy**
Oliver Schiller, Alexander Moosbrugger, and Bernhard Mitschang (University of Stuttgart, Germany)
3. **Exploiting Schema Information for Efficient Streaming Queries**
Dónall McCann, Paolo Cappellari, and Mark Roantree (Dublin City University, Ireland)
4. **Ontology-based Intelligent Network-Forensics Investigation**
Sherif Saad and Issa Traore (University of Victoria, Canada)

SESSION 5B:

**SPECIAL SESSION:
APPLICATIONS IN SOFTWARE ENGINEERING
AND DATA ENGINEERING II**

Thursday, June 17, 2:15 p.m. - 4:15 p.m., Sonoma II

Session Chair: Dr. Narayan Debnath, Winona State University

1. **Towards Integrating Role Playing Game Constructs in Real-Time Strategy Games**
Brad Towle, Monica Nicolescu, and Sergiu Dascalu (University of Nevada, Reno, USA)
2. **Favorite Goal in Agent Based Modeling and Simulation**
Sharad Sharma (Bowie State University, USA)
3. **CBR Applications in Service Organization**
Baisakhi Chakraborty and D. Ghosh (National Institute of Technology, Durgapur, India)
4. **The Arabic Tutor - An Intelligent web based Language Tutoring System for Teaching Arabic**
Dina Salah and Amir Zeid (American University of Kuwait)

4:15 p.m. – 4:30 p.m. Coffee Break

SESSION 6A:

SOFTWARE IMPLEMENTATION AND WEB DEVELOPMENT

Thursday, June 17, 4:30 p.m. - 6:30 p.m., Sonoma I

Session Chair: Dr. Amir Zeid, America University of Kuwait

1. **Applying Enhanced Graph Clustering to Software Dependency Analysis**
Tolga Ovatman, Feza Buzluca (Istanbul Technical University, Turkey), and Thomas Weigert (Missouri University of Science and Technology, USA)
2. **Using Delta-Federations for On-Demand Crisis Situation Response**
Robert Baird and Rose Gamble (University of Tulsa, USA)
3. **Achieving Self-Optimization via Utility Functions**
Debzani Deb (Indiana University of Pennsylvania, USA)
4. **Security Controls Applied to Web Service Architectures**
Robert Baird and Rose Gamble (University of Tulsa, USA)

SESSION 6B:

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

Thursday, June 17, 4:30 p.m. - 6:00 p.m., Sonoma II

Session Chair: Dr. Narayan Debnath, Winona State University

1. **Algorithmic Design and Implementation for Constructing Graphs of Circuits with Minimal Crossing Numbers**
Matthew Wolfe, Bryan McCauley, and Joyati Debnath (Winona State University, USA)
2. **The iPhone Teaching Companion: A Smartphone Application for Education**
Tsvetan A. Komarov and Sergiu Dascalu (University of Nevada-Reno, USA)
3. **Including Non-functional Requirements in the Invocation of Applications from the Workflow Engine using Web Services**
Narayan Debnath (Winona State University, USA), Paola Martellotto, Marcela Daniele (Universidad Nacional Rio Cuarto, Argentina), Daniel Riesco and German Montejano (Universidad Nacional de San Luis, Argentina)

Friday, June 18, 2010

8:30 a.m. – 3:00 p.m. REGISTRATION – Coffee/tea/pastries –SONOMA Foyer

SESSION 7A:

**SPECIAL SESSION:
TECHNOLOGIES FOR BIOMEDICAL APPLICATIONS**

Friday, June 18, 8:30 a.m. - 11:00 a.m., Sonoma I
Session Chair: Drs. Donna Hudson and Maurice Cohen, UCSF

- 1. Lab Norm: Automated Clinical Lab Data Normalization**
Rob Wynden and Donna L. Hudson (University of California San Francisco, USA)
- 2. Predicting Human Hepatic Clearance Using Hypernet Neural Networks**
Shahab Sheikh-Bahaei (UCSF, USA), Kamran A. Ali (University of California-Berkeley, USA), Sabina R. Bera (San Francisco State University, USA), and C. Anthony Hunt (University of California San Francisco, USA)
- 3. A Comparison of Classification Methods for Predicting Osteoporosis**
Karla Lindquist (University of California, San Francisco, USA), and Mark D. Danese (Outcomes Insights, Inc., USA)
- 4. Hadoop and MapReduce for Storage and Processing of Physiological Data**
Andrew V. Nguyen, Donna L. Hudson, and Maurice E. Cohen (University of California-San Francisco, USA)
- 5. An Agent-based System Model to Support Cardiac Tissue Engineering: Preliminary Results**
Laura Gaetano, Giacomo Di Benedetto, Umberto Morbiducci, Franco Montecvecchi (Politecnico di Torino, Italy), and Anthony Hunt (University of California San Francisco, USA)

SESSION 7B:

**SPECIAL SESSION:
MODULARIZATION AND RE-USE IN SOFTWARE ARCHITECTURE**

Friday, June 18, 8:30 a.m. - 10:00 a.m., Sonoma II
Session Chair: Dr. Kendra Cooper, University of Texas at Dallas

- 1. A Nonfunctional Requirement Tradeoff Analysis Approach for Reusable SPLE Artifacts**
Lirong Dai (Seattle University, USA)
- 2. Knowledge Maps - Fundamentally Modular Approach to Software Architecture, Design, Development and Deployment**
M. E. Fayad (San Jose State University, USA), H. A. Sanchez (University of California Santa Cruz, USA), and Shivanshu K. Singh (San Jose State University, USA)
- 3. Reusing Evolution Practices onto Object-Oriented Designs: an Experiment with Evolution Styles**
Olivier Le Goer, Mourad Oussalah, and Dalila Tamzalit (University of Nantes, France)

SESSION 7C:**SPECIAL SESSION:
SOFTWARE ENGINEERING APPLICATIONS AND TOOLS**

Friday, June 18, 10:15 a.m. - 12:30 p.m., Sonoma II
Session Chair: Dr. Kyungsoo Im, Clemson University

- 1. Reliability Analysis of Climate Change Data Portals for Nevada**
David J. Walker and Shahram Latifi (University of Nevada - Las Vegas, USA)
- 2. Context-aware Framework for Rural Living Labs**
Olfa Mabrouki (CityPassenger SA, France), Yacine Amirat, Abdelghani Chibani (University of Paris-Est, France), Monica V. Fernandez and Mariano N. de la Cruz (Grupo Tragsa, Spain)
- 3. Designing Services and Systems for Safety of Elderly People at Home: An Ongoing Empirical Study**
Jukka Ojasalo, Rob Moonen, Niko Suomalainen, and Heikki Seppälä (Laurea University of Applied Sciences, Finland)
- 4. Helping Students Learn Expert Software Design Strategies**
David R. Wright (North Carolina State University, USA)
- 5. A New Approach on Priority Queue based Scheduling with Handoff Management for Mobile Networks**
P. K. Guha Thakurta, Souvik Sonar, Biswajit Bhowmik, Swapan Bhattacharya (National Institute of Technology-Durgapur, India), and Subhansu Bandyopadhyay (University of Calcutta, India)

12:30 p.m. – 2:15 p.m LUNCH BREAK ON OWN

SESSION 8A:**DATA ENGINEERING APPLICATIONS II**

Friday, June 18, 2:30 p.m. - 4:00 p.m., Sonoma I
Session Chair: Dr. Suprava Patnaik, Sardar Vallabhbhai Natl. Inst. of Technology

- 1. Spectral Information Guided Complexity Evaluation for Video Codec Design**
Jigisha N. Patel, Suparva S. Patnaik, and Vaibhavi P. Lineswala (Sardar Vallabhbhai National Institute of Technology, India)
- 2. A Novel Approach based on Optical Flow for Moving Object Detection**
Amisha J. Shah (SKPCET, India), Suprava Patnaik, and Jigisha N. Patel (SVNIT, India)
- 3. A Hierarchical Case-Based Computer-Assisted Process-Planning System**
Chi-Chun Hsu, Huan-Yu Lin, Jun-Ming Su (National Chiao Tung University, Taiwan), Shian-Shyong Tseng (Asia University, Taiwan), Chung-Chao Ku, Jui-Pin Tsai (Industrial Technology Research Institute, Taiwan), and Fengming M. Chang (Asia University, Taiwan)

SESSION 8B:

**SOFTWARE PROCESSES
AND SOFTWARE PROJECT MANAGEMENT**

Friday, June 18, 2:30 p.m. - 4:00 p.m., Sonoma II

Session Chair: Dr. Rym Z. Wenkstern, University of Texas at Dallas

1. **A Replication Study of SPI Success Factors for Small to Medium Sized Web Companies**
Muhammad Sulayman and Emilia Mendes (The University of Auckland, New Zealand)
2. **Maintainability Prediction for Database-driven Software Applications - Preliminary Results from Interviews with Software Professionals**
Mehwish Riaz, Emilia Mendes and Ewan Tempero (The University of Auckland, New Zealand)
3. **Planning Techniques for Re-Engineering the Legacy System with Components**
Jeong Ah Kim (Kwandong University)
4. **Measuring the Size of Business Sector and Business Software**
Alen Jakupovic (Polytechnic of Rijeka, Croatia), Mile Pavlic (University of Rijeka, Croatia), and Damir Simunovic (Croatian Radiotelevision, Croatia)