

24th International Conference on

**Software Engineering
and Data Engineering
(SEDE-2015)**

PROGRAM

October 12-14, 2015

Hilton San Diego / Harbor Island
San Diego, California, USA

Sponsored by



International Society for
Computers and Their Applications

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24th International Conference on Software Engineering and Data Engineering (SEDE-2015)

SPONSOR

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Amir Zeid	American University of Kuwait
Fay Zhong	California State University, East Bay

Sunday, October 11, 2015 ☼

4:00 p.m. – 7:00 p.m.

PRE-REGISTRATION – Skyline/Lindbergh Room, 9th floor

8:00 a.m. – 4:00 p.m. **REGISTRATION – Skyline/Lindbergh Room, 9th floor**
8:00 a.m. – 9:00 a.m. **Coffee, Tea and Pastries - Skyline/Lindbergh Room, 9th floor**

8:40 a.m. – 9:00 a.m. **WELCOME - Skyline/Lindbergh Room, 9th floor**
Gongzhu Hu, CAINE Conference Chair
Frederick Harris, SEDE Conference Chair

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

Professor Yi Pan
Georgia State University
"Parallel Computing on Clouds -- Issues and Solutions? "
Location: Skyline/Lindbergh Room, 9th floor

10:00 a.m. – 10:30 a.m. **COFFEE BREAK - Lindbergh Room, 9th floor**

SESSION C1:

SOFTWARE ENGINEERING I

Monday October 12, 10:30 a.m. - 12:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Xudong He (Florida International University)

1. **Using Agent Technology for Security Testing of WEB Based Applications**
Muhammad Imran, Fathy Eassa, and Kamal Jambi (King Abdulaziz University, Saudi Arabia)
2. **Selecting Statistically Significant Independent Variables for Component-based Software Development Effort Prediction**
Cuauhtémoc López-Martín, Arturo Chavoya, Maria Elena Meda-Campaña (Universidad de Guadalajara, México)
3. **A Formal Modeling Method for Cost-Aware Service Composition**
Fangxiong Xiao, Huaqing Min, Xu Bo (South China Univeristy of Technology) and Xudong He (Florida International University)
4. **Test Case Selection using Software Complexity and Volume Metrics**
Shadi Banitaan, Kevin Daimi, Yujun Wang (University of Detroit Mercy) and Mohammed Akour (Yarmouk University, Jordan)

12:00 p.m. – 1:30 p.m. **LUNCH BREAK ON OWN**

Session C2:**TUTORIAL: AUTOMATED ASSESSMENT TOOLS**

Monday October 12, 1:30 p.m. – 3:00 p.m., Lindbergh Room (9th Floor)

Presenters: Professor Barton P. Miller (University of Wisconsin)
Professor Elisa Heymann (Autonomous University of Barcelona)

The tutorial will start with basic background material about how software assessment tools work, the capabilities and limitations of such tools. It will then focus on a selection of both commercial and open source tools for C/C++ and Java, and demonstrate how to apply them to sample programs with known flaws. It will conclude with a live demonstration.

3:00 p.m. – 3:30 p.m. COFFEE BREAK - Skyline/Lindbergh Room, 9th floor

SESSION C3:**SOFTWARE ENGINEERING AND APPLICATIONS**

Monday October 12, 3:30 p.m. – 5:00 p.m., Lindbergh Room (9th Floor)

Session Chair: Narayan Debnath (Winona State University)

- 1. Determining Emotion through Machine Learning**
Christopher Bischke and Narayan Debnath (Winona State University)
- 2. New Structure for Agile Team Sitting**
Azza Elneil Osman Abdalla and Hisham Mohammad Abushama (University of Khartoum, Sudan)
- 3. A Software Environment for Watershed Modelling**
Moinul Hossain, Sergiu Dascalu and Frederick Harris (University of Nevada, Reno)
- 4. GUI – Enhanced Activity Diagrams with Application to the Design of AVISTED**
Likhitha Ravi, Sergiu Dascalu and Frederick Harris (University of Nevada, Reno)

Tuesday October 13, 2015

8:00 a.m. – 4:00 p.m. **REGISTRATION** – Skyline/Lindbergh Room, 9th floor
8:00 a.m. – 9:00 a.m. **Coffee, Tea and Pastries** - Skyline/Lindbergh Room, 9th floor

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

Dr. Yantao Shen

University of Nevada, Reno

“Integrating Custom-built Software Interfaces with Hardware Platforms for Real-time Data Visualization and Analysis in Industrial and Biomedical Engineering Applications”

Location: Skyline/Lindbergh Room, 9th floor

10:00 a.m. – 10:30 a.m. COFFEE BREAK - Lindbergh Room, 9th floor

SESSION C4:

DATA ENGINEERING I

Tuesday October 13, 10:30 a.m. - 12:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Aspen Olmsted (College of Charleston)

1. **Investigating Manifold Neighborhood size for Nonlinear Analysis of LIBS Amino Acid Spectra**
Piyush Kumar Sharma, Gary Holness, Poopalasingam Sivakumar, Yuri Markushin, and Nouredine Melikechi (Delaware State University)
2. **Non-linear Quantitative Structure-Activity Relationship (QSAR) Models for the Prediction of HIV Drug Performance**
Ian P. Kane and Ahmad R. Hadaegh (California State University, San Marcos)
3. **Fresh, Atomic, Consistent and Durable (FACD) Data Integration Guarantees**
Aspen Olmsted (College of Charleston)
4. **An Algorithm for Selecting Meaningful Dimensions**
Yong Shi and Swathi Ganji (Kennesaw State University)

**12:00 p.m. – 1:30 p.m. CONFERENCE LUNCHEON
AND BEST PAPER AWARDS**

LOCATION: Spinnaker Room and Patio (1st floor)

SESSION C5:**SOFTWARE ENGINEERING II**

Tuesday October 13, 1:30 p.m. – 3:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Ajay Bandi (Northwest Missouri State University)

1. **Quality Measurements for Legacy to SOA Migration**
Ayman Massoud (Otto von Guericke University, Germany)
2. **On the Relationships between Use Case Attributes and Source Code Size: An Empirical Investigation**
William Flageol, Mourad Badri and Linda Badri (University of Quebec, Canada)
3. **Assessing Code Decay: A Data-driven Approach**
Ajay Bandi (Northwest Missouri State University), Edward B. Allen and Byron J. Williams (Mississippi State University)
4. **Industrial Validation of an Approach to Measure Software Quality**
Reza Mirsalari (École Polytechnique de Montréal), Mehdi Aftahi (Technology Evaluation Centers) and Pierre N. Robillard (École Polytechnique de Montréal)

3:00 p.m. – 3:30 p.m. COFFEE BREAK - Lindbergh Room, 9th floor

SESSION C6:**DATA ENGINEERING II**

Tuesday October 13, 3:30 p.m. – 5:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Rashed Salem (Menofia University)

1. **Sentiment Analysis Conducted on Students' Evaluation of Courses**
Karamveer Yadav, Andrew Backes and Kasi Periyasamy (University of Wisconsin, La Crosse)
2. **Understanding Factors Influencing the Citation Count of Networking Conference Papers**
Utkarsh Goel, Clemente Izurieta, and Mike P. Wittie (Montana State University)
3. **Prediction of Stakeholder Classification and Prioritization Based on Rough Set Theory**
Asmaa Haroun, Rashed Salem and Hatem Mohamed Abdul-Kader (Menofia University)
4. **Affective Computing for Social Networking Issues**
Prerana Lanjekar (California State University, East Bay)

8:00 a.m. – 12:00 p.m. REGISTRATION – Skyline/Lindbergh Room, 9th floor
8:00 a.m. – 9:00 a.m. Coffee, Tea and Pastries – Skyline/Lindbergh Room, 9th floor

SESSION C7:

SOFTWARE APPLICATIONS I

Wednesday October 14, 8:30 a.m. - 10:00 a.m., Lindbergh Room (9th Floor)
Session Chair: Wenying Feng (Trent University)

- 1. An Experimental Evaluation of Apple Siri and Google Speech Recognition**
Mehdi Assefi, Guangchi Liu, Clemente Izurieta and Mike Wittie (Montana State University)
- 2. Design of a Cloud-based Bike-fleet POI Touring Service Platform**
Hao-Hsiang Ku, Miao Ouyang (Hwa-Hsia University of Technology) and Si-Yuan Haung (National Pingtung University of Science and Technology)
- 3. Predictive Real Estate Multiple Listing System Using MVC Architecture and Linear Regression**
Timothy Oladunni and Sharad Sharma (Bowie state University)
- 4. SMOTE with Distance Threshold for Machine Learning Applied to Real-Time Bidding for Online Advertising**
Ben McInroy, Wenying Feng (Trent University) and Gongzhu Hu (Central Michigan University)

10:00 a.m. – 10:30 a.m. COFFEE BREAK - Lindbergh Room, 9th floor

SESSION C8:

SOFTWARE APPLICATIONS II

Wednesday October 14, 10:30 a.m. - 12:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Sharad Sharma (Bowie State University)

- 1. Improving Energy Consumption and Performance of Mobile Applications Using the Cloud**
John Newman and Wei Hao (Kentucky University)
- 2. Enhanced Dependability Rules Generation Approach for Data Cleaning in Medical Applications**
Asmaa Abdo, Rashed Salem and Hatem Abdul-Kader (Menoufia University, Egypt)
- 3. A Comparative Study on Cloud-based Agile Tools**
Mohsen Taheri and S. Masoud Sadjadi (Florida International University)
- 4. Mobile App for increasing Productivity and Health at Workplace**
Sharad Sharma, Sheeba Nadarajah, Diliorah Arah and Shanmukha Jerripothula (Bowie State University)

12:00 p.m. – 1:30 p.m. LUNCH BREAK ON OWN

Session C9:**SOFTWARE ENGINEERING III**

Wednesday October 14, 1:30 p.m. – 3:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Songqing Yue (University of Central Missouri)

1. **Preliminary Study on Assessing Software Defects Using Nano-Pattern Detection**
Ajay Deo and Byron Williams (Mississippi State University)
2. **Design Adaptability for Multilingual Mobile Application Software**
Paniti Netinant (Rangsit University, Thailand)
3. **A DSL for Reducing the Accidental Complexities of using Program Transformation Engines**
Songqing Yue (University of Central Missouri) and Jeff Gray (University of Alabama)
4. **OpenC: Extending C Programs with Computational Reflection**
Songqing Yue (University of Central Missouri) and Jeff Gray (University of Alabama)

SESSION C10:**DATA ENGINEERING III**

Wednesday October 14, 1:30 p.m. – 3:00 p.m., Skyline Room (9th floor)
Session Chair: Dr. Frederick Harris (University of Nevada, Reno)

5. **Apriori(Is): Scalable Frequent Itemset Mining At Low Support Levels**
Neal Clark and Yvonne Coady (University of Victoria)
6. **Applying Big Data Analytics on Integrated Cybersecurity Datasets**
Lakshmi Sindhuri Juturu, Susan Urban (Texas Tech University) and Bryan Stearns (University of Michigan)
7. **Environment for Datasets Processing and Visualization Using SciDB**
Rui Wu, Sergiu Dascalu and Frederick Harris (University of Nevada, Reno)