

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 Lobby, 9th floor

Monday, October 12, 2015

8:00 a.m. – 4:00 p.m. **REGISTRATION – Skyline/Lindbergh Lobby, 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

Sunday, October 11, 2015

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 - 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 Lobby, 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)

Wednesday October 14, 2015

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