26th International Conference on

Software Engineering and Data Engineering (SEDE-2017)

PROGRAM

October 2-4, 2017

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

Sponsored by

ISCA

International Society for Computers and Their Applications

26th International Conference on

Software Engineering and Data Engineering
(SEDE-2017)

SPONSOR

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         Sergiu Dascalu, University of Nevada, Reno, USA

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4:00 — 7:00 p.m.   Pre-Conference Registration, Skyline/Lindbergh Room, 9th Floor

8:00 a.m. – 4:00 p.m.   **Registration, Skyline/Lindbergh Lobby (9th Floor)**
8:00 a.m. – 9:00 a.m.   **Coffee and Pastries, Skyline/Lindbergh Room (9th Floor)**

8:40 a.m. – 9:00 a.m.   **WELCOME, Skyline/Lindbergh Room (9th Floor)**

Gongzhu Hu and Takaati Goto, CAINE Chairs
Fred Harris, Sergiu Dascalu, and Sharad Sharma, SEDE Chairs

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

Dr. Mohan Trivedi
University of California San Diego, USA
"A Quest for Human-Robot Cohabitation: Towards Human-Centered Autonomous Driving"

Location: Skyline/Lindbergh Room
Session Chair: Dr. Takaaki Goto, Ryutsu Keizai University, Japan

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10:00 a.m. – 10:30 a.m. COFFEE BREAK, Skyline Room (9th Floor)

SESSION B1:

SOFTWARE ENGINEERING I
Monday, October 2, 10:30 a.m. - 12:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Yaakov Varol (University of Nevada, Reno, USA)

1. **Highly Accurate Marketing Source Attribution for Android Out-of-Store Apps**
   Kaushik Wavhal, Abhishek Bharti, Divyesh Topiya, Vivek Shah, Monish Shah, and Jignesh Karelia (Play Games24x7 Private Limited)

2. **A Dynamic, Real-time Algorithm for Seed Counting**
   Mitchell L. Neilsen, Chaney Courtney, Siddharth Amaravadi, Zhiqiang Xiong, and Jesse Poland and Trevor Rife (Kansas State University)

3. **Game Theme Based Instructional Module to Teach Binary Trees Data Structure**
   Rajeev Sarika, Sharad Sharma (Bowie State University), Atma Sahu (Coppin State University)

4. **Mobile Augmented Reality Application for Building Evacuation Using Intelligent Signs**
   James Stigall and Sharad Sharma (Bowie State University)

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

Session B2:	**SOFTWARE ENGINEERING II** Monday, October 2, 1:30 p.m. – 3:00 p.m., Lindbergh Room (9th Floor) Session Chair: Cuauhtémoc López-Martín (Universidad de Guadalajara)

1. **Avaler's Adventure: an Open Source Game for Dysphagia Therapy**
    Catherine R. Pollock, Daniel A. Lopez, Gunnar Wambaugh, Luis Almanzar,
    Amanda Morrissey, Kathryn Krings, Kristine Galek and Frederick C. Harris, Jr.
    (University of Nevada, Reno)

2. **Climate Hangman: A Word Challenge Educational Game**
    Sonu Jose, Aswathi Mohan, Sergiu M.Dascalu, Sushil J.Louis and Siming Liu
    (University of Nevada, Reno)

3. **Visualization of Dynamic Fluid Characteristics for Hose and Pipeline Systems in Army Operational Environment**
    Peter J. Grazaitis (U.S. Army Research Laboratory), Mark R. Cammarere (Technology
    Service Corporation)

4. **Investigating the Feasibility of using a Microsoft™ HoloLens as a Robotic Sensor and Odometry Source.**
    Esteban Segarra and Bradford Towle Jr. (Florida Polytechnic University)

3:00 p.m. – 3:30 p.m. COFFEE BREAK, Skyline Room (9th Floor)

SESSION B3:	**DATA ENGINEERING I** Monday, October 2, 3:30 p.m. – 4:45 p.m., Lindbergh Room (9th Floor) Session Chair: Bradford Towle, Jr. (Florida Polytechnic, USA)

1. **Modeling End User Empowerment in Big Data Applications**
    Marco X. Bornschlegl, Kevin Berwind, and Matthias L. Hemmje (University of Hagen)

2. **Statistical Analysis of Effort, Duration and Quality Data for Software Enhancement Projects**
    Cuauhtémoc López-Martín (Universidad de Guadalajara)

3. **A Mobile Quality Assurance Application for the NRDC**
    Hannah Munoz, Connor Scully-Allison, Vinh Le, Scotty Strachan, Fredrick C. Harris Jr.,
    and Sergiu Dascalu (University of Nevada, Reno)

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 Lobby (9th Floor)**

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

Dr. Scott T. Kelley
San Diego State University
"The promise and pitfalls of computational biology, or how to convince biologists you do more than push buttons on a keyboard"

Location: Skyline/Lindbergh Room
Session Chair: Dr. Sergiu Dascalu, University of Nevada, Reno

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10:00 a.m. – 10:30 a.m. COFFEE BREAK, Skyline Room (9th Floor)

SESSION B4:

SOFTWARE ENGINEERING III
Tuesday, October 3, 10:30 a.m. - 12:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Peter Bodorik (Dalhousie University),

1. **Mitigation of Human Systems Integration (HSI) Issues of Army Maintenance Processes: A Case Study**
   Riannon M. Hazell (US. Army Research Laboratory), Seth G. Nelson and Gary Bowman (11th Armored Cavalry Regiment)

2. **Prevalence of Vulnerable Code Among Scientific Software Systems**
   Melissa Sarnowski (University of Wisconsin-Fox Valley), Saleh Alnaeli (University of Wisconsin-Colleges)

3. **Reliability Assessment and Prediction with Testing Efficiency Growth for Open Source Software**
   Yuli Tian and Ning Li (Northwestern Polytechnical University), Je Tian (Southern Methodist University and Northwestern Polytechnical University)

4. **Feature Extraction Method Based on Goal–Scenario Coupling Model**
   Jeong Ah Kim (Catholic Kwandong University) and SunTae Kim (Chonbuk National University)

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

LOCATION: Marina Ballroom and Foyer

FRAMEWORK AND INFRASTRUCTURE DESIGN

Tuesday, October 3, 1:30 p.m. – 3:00 p.m., Lindbergh Room (9th Floor)
Session Chair: Saleh Alnaeli (University of Wisconsin-Colleges)

1. **Software Infrastructure to Reduce the Cost and Time of Building Enterprise Software Applications: Practices and Case Studies**
   Jalal Kiswani, Sergiu Dascalu, and Frederick C. Harris (University of Nevada, Reno), Muhanna Muhanna (Princess Sumaya University for Technology)

2. **A Functionality-driven Design of a Centralized Home Automation Internet of Things Framework with a Dynamically Generated Web Interface**
   Samer Mansour (Alfaisal University), Marcel Karam (American University of Ras Al Khaimah)
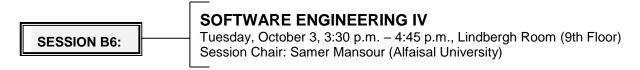
3. **Access Control Mechanism Using Ethereum Blockchain**
   Abhinav Kalra, Syed Shahzeb Hasnain, and Peter Bodorik (Dalhousie University), Dawn Jutla (Saint Mary's University)

4. **A Bare Machine RAID File System for USBs**
   Hamdan Z. Alabsi, William V. Thompson, Ramesh K. Karne, Alexander L. Wijesinha, Rasha A. Almajed and Faris A. Almansour (Towson University)

3:00 p.m. – 3:30 p.m. COFFEE BREAK, Skyline Room (9th Floor)

SOFTWARE ENGINEERING IV

Tuesday, October 3, 3:30 p.m. – 4:45 p.m., Lindbergh Room (9th Floor)
Session Chair: Samer Mansour (Alfaisal University)

1. **ARIA: Efficient Music Festival Manager**
   David A. Mar, Jr., Emily Huang, Vladislav B. Savranschi, Renee T. Iinuma, Wesley Kepke, Ernest Landrito, Kyle Lee, Cynthia R. Harris, Sergiu M. Dascalu, Frederick C. Harris, Jr. (University of Nevada, Reno)

2. **Hedonic House Regression Model Using Deep Learning**
   Timothy Oladunni and Sharad Sharma (Bowie State University)

3. **Using Classifiers for Software Defect Detection**
   Logan Perreault, Seth Berardinelli, Clemente Izurieta, John Sheppard (Montana State University)