

**30th International Conference on
Computer Applications in Industry and Engineering
(CAINE 2017)**

PROGRAM

October 2 – 4, 2017, San Diego, California, USA

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

Sponsored by



International Society for Computers and Their Applications

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Tomoo Sumida	Toyo University, Japan
Masashi Toda	Kumamoto University, Japan
Alberto Trombetta	University of Insubria, Italy
Honoriu Valean	Technology University of Cluj-Napoca, Romania
Mitsuo Wakatsuki	The University of Electro-Communications, Japan
Thomas Way	Villanova University, USA
Wei Wei	Xi'an University of Technology, China
John Weiss	South Dakota School of Mines & Technology, USA
Pak Wong	University of Macau, China
Christoph Wunck	Jade University, Germany
Michio Yokoyama	Yamagata University, Japan
Feng Yu	Youngstown State University, USA
Filip Zavoral	Charles University, Czech Republic
Yunpu Zhu	University of Lethbridge, Canada
Yan Zhuang	University of Macau, China

Program at a Glance

Monday (October 2)		Tuesday (October 3)		Wednesday (October 4)	
8:00– 4:00	Registration	8:00–4:00	Registration	8:00–10:00	Registration
8:40– 9:00	Opening Remarks				
9:00–10:00	CAINE Keynote	9:00–10:00	SEDE Keynote	8:30–10:00	A7
10:00–10:30	Coffee Break	10:00–10:30	Coffee Break	10:00–10:30	Coffee Break
10:30–12:00	A1, C1	10:30–12:00	A4	10:30–12:00	A8
12:00– 1:30	Lunch (on your own)	12:00– 1:30	Conf. Luncheon		
1:30– 3:00	A2, C2	1:30– 3:00	A5		
3:00– 3:30	Coffee Break	3:00– 3:30	Coffee Break		
3:30– 5:00	A3	3:30– 5:00	A6		

Sunday, October 1

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

Monday, October 2

- 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. **Conference Opening, Skyline/Lindbergh Room (9th Floor)**
Gongzhu Hu and Takaati Goto, CAINE Chairs
Fred Harris, Sergiu Dascalu, and Sharad Sharma, SEDE Chairs

9:00 – 10:00 a.m. Keynote Address


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

 **10:00 – 10:30 a.m. Coffee Break, Skyline Room (9th Floor)**

SESSION A1 — **Information Systems / Data Mining**
Monday, October 2, 10:30 a.m. – 12:00 noon, Skyline Room (9th Floor)
Session Chair: Dr. Vicente Morales (Universidad Tecnica de Ambato, Ecuador)

Municipal E-Government in the Provincial Capitals of Ecuador

Vicente Morales (Universidad Tecnica de Ambato, Ecuador), Sussy Bayona (Universidad Politecnica de Madrid, Spain)

Enhanced Merge Sort Using Simplified Transferable Auxiliary Space

Zirou Qiu, Ziping Liu, Xuesong Zhang (Southeast Missouri State University, USA)

Tweaking for Better Algorithmic Implementation

Zirou Qiu, Ziping Liu, Xuesong Zhang (Southeast Missouri State University, USA)

The Design and Development of a Cloud-based Digital Gallery Solution

Quan Yuan, Manuel Chuecos (University of Texas-Permian Basin, USA)

SESSION C1 — **Wireless Networks and Communication / Computer Security**
Monday, October 2, 10:30 a.m. – 12:00 noon, Chart Room (1st Floor)
Session Chair: Dr. John Meehan (Western Washington University, USA)

BER and Channel Capacity investigation of the MIMO System Behavior for Different Scenarios in Wireless Communication Network

Majed Albogame, Junghwan Kim, Mohammad Niamat (University of Toledo, USA)

Performance Enhancement of OFDMA Using PAPR-PTS Reduction Technique for Future Wireless Communication Network

Majed Albogame, Junghwan Kim, Mohammad Niamat (University of Toledo, USA)

Portcullis : Secure TCP Port Reservation

Benjamin Ellerby, Raymond Weiming Luo, John Meehan, Evan Ricks, Oliver Smith-Denny (Western Washington University, USA)

12:00 – 1:30 p.m. Lunch on Your Own

SESSION A2 — **Distributed Systems**
Monday, October 2, 1:30 p.m. – 3:00 p.m., Skyline Room (9th Floor)
Session Chair: Dr. Nicholas Hays (Nova Southeastern University, USA)

Reducing the Download Time in Stochastic P2P Content Delivery Networks by Improving Initial Peer Selection

Nicholas Hays, Gregory Simco (Nova Southeastern University, USA)

An Effective Approach for Data Migration of Legacy Systems Distributed as Virtual Appliances

George R. Costa, Marcos C. Vianna, Fabio M. Manzano, Alexandre Osorio, Elenice S. Alves, Marcos Salvador (Instituto de Pesquisas Eldorado, Brazil)

Real Time Implementation of Energy Optimization Technique in Multimodal Surveillance Wireless Sensor Network

Abhishek Tripathi, Hari Prabhat Gupta, K.K Shukla, Satyabrata Jit, Tanima Dutta (Indian Institute of Technology - Banaras Hindu University, India)

Data Sharing With Ethereum Blockchain In Untrusted Environment

Syed Hasnain, Abhinav Kalra, Peter Bodorik (Dalhousie University, Canada), Dawn Jutla (Saint Mary's University, Canada)

SESSION C2 — **Computer Modeling / Computer Architecture**
Monday, October 2, 1:30 p.m. – 3:00 p.m., Chart Room (1st Floor)
Session Chair: Dr. Nagi Mekhiel (Ryerson University, Canada)

The Design and Implementation of an Address Illuminator

Mohammad Alshobbar, Ghali Kassim, Armando Macias, Wenbin Luo (St. Mary's University, USA)

Design of a Power Aware Encryption Accelerator

Muhammad Pervaiz, Behnam Arad (California State University, Sacramento, USA)

Introducing Orbital Network for Scalable Multi-Core

Nagi Mekhiel (Ryerson University, Canada)

 **3:00 – 3:30 p.m. Coffee Break, Skyline Room (9th Floor)**

SESSION A3 — **Big Data Analytics / Data Mining**
Monday, October 2, 3:30 p.m. – 5:00 p.m., Skyline Room (9th Floor)
Session Chair: Dr. Nadia El Bekri (Fraunhofer IOSB, Germany)

Adaptive Knowledge Discovery in Expert Systems

Nadia El Bekri, Elisabeth Peinsipp-Byma (Fraunhofer Institut für Optronik, Systemtechnik und Bildauswertung, Germany)

Examining the Impact of Social Forces on the Web of Trust

Ruby Elkhartoutly (Quinnipiac University, USA), Swapna Gokhale, Huda Alhazmi (University of Connecticut, USA)

The Expanding Role of Computer-Assisted Healthcare Diagnostics

Donna L Hudson, Maurice E Cohen (University of California, San Francisco, USA), Samuel E Hudson (California State University, Bakersfield, USA)

Discovering Alpha Yelpers

Rojin Alihyaei (Georgia Institute of Technology, USA), Angkul Kongmunvattana (Clayton State University, USA), Alexander Little (Georgia Institute of Technology, USA)

Computer Vision System for MP4GS Robotic Platform

Johnathan Haddock (St. Mary's University, USA), Andrew Luo (Brandeis High School, USA), Wenbin Luo (St. Mary's University, USA)

Tuesday, October 3

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)


9:00 – 10:00 a.m. Keynote Address

**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, USA

 **10:00 a.m. – 10:30 a.m. Coffee Break, Skyline Room (9th floor)**

SESSION A4 — **Web-based Systems / Image / Signal Processing**
Tuesday, October 3, 10:30 a.m. – 12:00 noon, Skyline Room (9th Floor)
Session Chair: Dr. Jennifer Knull (University of Western Ontario, Canada)

Intelligent Digital Signage Platform For Targeted Advertising

Lakmal Meegahapola, Madhawa Vidanapathirana, Indika Perera (University of Moratuwa, Sri Lanka)

Automatic Identification of Turning Maneuvers from Vehicle Data

Jennifer Knull, Cristian Ardelean, Steven Beauchemin, Michael Bauer (The University of Western Ontario, Canada)

Extending Watershed Segmentation Algorithms for High-Throughput Phenotyping on Mobile Devices

Mitchell Neilsen, Shravan D. Gangadhara, Siddharth Amaravadi (Kansas State University, USA)

Using Task Models to Maintain Accuracy of Web Usage Models

Gity Karami, Jeff Tian (Southern Methodist University, USA)



12:00 – 1:30 p.m. Conference Luncheon and Best Paper Awards

Location: Marina Ballroom and Foyer

SESSION A5 — **Big Data Analytics**
Tuesday, October 3, 1:30 p.m. – 3:00 p.m., Skyline Room (9th Floor)
Session Chair: Dr. Hua Yu (China University of Geosciences, China)

Design of a Real-Time Heart Sounds Recognition system

Ayman Hariga (University of Science and Technology, Sudan), Magdi Amien (Gezira University, Sudan)

Estimation System of Blood Pressure Variation with Photo-Plethysmograph Signals using Neural Network

Seung-Il Cho, Takumi Negishi, Muneki Yasuda, Michio Yokoyama (Yamagata University, Japan)

The Research and Application of Micro-blog Users' Interest Classification Based on SVM

Bin Zhang (Wuhan University, China), Hua Yu (China University of Geosciences, China), Guobin Zhu (Wuhan University, China), Ling Peng (Huanggang Land and Resources Bureau, China)

Meta Learning Ensemble Technique for Diagnosis of Cardiac Autonomic Neuropathy Based on Heart Rate Variability Features

Ahmad Shaker Abdalrada, Jemal Abawajy, Morshed Chowdhury, Sutharshan Rajasegarar, Tahsien Al Quraishi (Deakin University, Australia), Herbert F. Jelinek (Charles Sturt University, Australia)

Breast Cancer Risk Assessment Prediction Using an Ensemble Classifier

Tahsien Al-Quraishi, Jemal Abawajy, Morshed Chowdhury, Sutharshan Rajasegarar, Ahmad Shaker Abdalrada (Deakin university, Australia)

☕ **3:00 – 3:30 p.m. Coffee Break, Skyline Room (9th Floor)**

SESSION A6 — **Software Engineering / Databases**
Tuesday, October 3, 3:30 p.m. – 5:00 p.m., Skyline Room (9th Floor)
Session Chair: Dr. Wei Jin (University of North Texas, USA)

Identifying Implicit Features in Sentiment Analysis with Conditional Random Fields and Pattern Analysis

Ya Zhu (North Dakota State University, USA), Wei Jin (University of North Texas, USA), Yan Zhang (Microsoft Research, USA)

A Weighted Framework for Process Model Selection

Fawaz Alzaghoul, Amjad Hudaib (The University of Jordan, Jordan), Raneem Qaddoura (The University of Philadelphia, Jordan), Mais Haj Qasem (The University of Jordan, Jordan), Alaa Abu-Srhan (Hashemite University, Jordan)

Service Modeling for Virtual Data Warehouse

Partha Ghosh (University of Calcutta, India), Deep Sadhu (Kalyani Government Engineering College, India), Soumya Sen (University of Calcutta, India), Narayan Debnath (Winona State University, USA)

Quality of Business Processes Conceptual Models: Fuzzy Logic vs. Continuous Logic Operators

Narayan Debnath (Winona State University, USA), Ilhyun Lee, Haesun Lee (The University of Texas - Permian Basin, USA), Carlos Salgado, Mario Peralta, Daniel Riesco, Lorena Baigorria, Germán Montejano (Universidad Nacional de San Luis, Argentina)

Wednesday, October 4

8:00 a.m. — 10:00 a.m. Registration, Skyline/Lindbergh Lobby (9th Floor)

8:00 a.m. — 9:00 a.m. Coffee and Pastries, Skyline Room (9th Floor)

SESSION A7 — **Bioinformatics / Information Systems**
Wednesday, October 4, 8:30 a.m. – 10:00 a.m., Skyline Room (9th Floor)
Session Chair: Dr. Mitchell Neilsen (Kansas State University, USA)

Mobile Applications for High-throughput Phenotyping

Chaney Courtney, Mitchell Neilsen, Trevor Rife (Kansas State University, USA)

Detection of Forest Fires from Video Signals with Sparse Representation over Dictionaries

Roberto Rosas-Romero (Universidad de las Américas-Puebla, Mexico)

Accurate Synthetic File System Workloads

Salam Farhat, Greg Simco (Nova Southeastern University, USA)

Strengthening Methods of Computer Daihinmin Programs

Mitsuo Wakatsuki, Yasuki Dobashi, Tasuku Mitsuishi (The University of Electro-Communications, Japan), Seiya Okubo (University of Shizuoka, Japan), Tetsuro Nishino (The University of Electro-Communications, Japan)

 **10:00 – 10:30 a.m. Coffee Break, Skyline Room (9th Floor)**

SESSION A8 — **Control Systems / Algorithms**
Wednesday, October 4, 10:30 a.m. – 12:00 noon, Skyline Room (9th Floor)
Session Chair: Dr. Bo Yuan (Northwestern Polytechnical University, China)

New Model of Random Gust Acting on Aerospace Vehicle

Supeng Zhu, Wenxing Fu, Jun Yang (Northwestern Polytechnical University, China), Yuemin Cao (Xi'an Gaoxin No.1 Highschool International Campus, China)

Fault Tolerance Control Method Research of VS-MRAC based on Parameter Space

Bo Yuan, Jun Yang, Supeng Zhu, Xueping Zhu (Northwestern Polytechnical University, China)

Research of Hybrid Control Method between STC and VS-MRAC

Jun Yang, Bo Yuan, Xueping Zhu, Supeng Zhu (Northwestern Polytechnical University, China)

Parameter Identification of Continuous System Based on Step Response

Xueping Zhu, Geng Xu, Jun Yang, Bo Yuan (Northwestern Polytechnical University, China)

ISCA Conferences in 2018



33rd International Conference on Computers and Their Applications (CATA 2018)

March 19-21, 2018, Flamingo Hotel, Las Vegas, Nevada, USA

9th International Conference on Bioinformatics and Computational Biology (BICOB 2018)

March 19-21, 2018, Flamingo Hotel, Las Vegas, Nevada, USA

31st International Conference on Computers Applications in Industry and Engineering (CAINE 2018)

October 8–10, 2018, Holiday Inn Downtown Superdome, New Orleans, Louisiana, USA

27th International Conference on Software Engineering and Data Engineering (SEDE 2018)

October 8–10, 2018, Holiday Inn Downtown Superdome, New Orleans, Louisiana, USA

Check <http://www.isca-hq.org/isca.php?p=Conferences> for details.