CONFERENCE PROGRAM

ISSAT INTERNATIONAL CONFERENCE

DATA SCIENCE and INTELLIGENT SYSTEMS

LAS VEGAS, NEVADA, U.S.A. ★ AUGUST 1 – 3, 2019

Sponsor

The International Society of Science and Applied Technologies

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DSIS Conference at a Glance

THURSDAY, AUGUST 1	FRIDAY, AUGUST 2	SATURDAY, AUGUST 3
8:00 - 9:00 Registration / Continental Breakfast Las Vegas 1 & 2 & 3 Foyer	8:00 - 8:45 Registration / Continental Breakfast Las Vegas 1 & 2 & 3 Foyer	8:00 - 8:45 Registration / Continental Breakfast Las Vegas 1 & 2 & 3 Foyer
9:00 - 9:45 Welcome - Awards Presentation Las Vegas 1 & 2 & 3	8:45 - 10:00 SESSION 5 – Paper Presentations Las Vegas 3	8:45 - 10:00 SESSION 8 – Paper Presentations Las Vegas 3
9:45 - 10:30 SESSION 1 – Keynote Speech Las Vegas 1 & 2 & 3	10:00 - 10:15 Coffee Break Las Vegas 1 & 2 & 3 Foyer	10:00 Adjourn!
10:30 - 11:00 Coffee Break Las Vegas 1 & 2 & 3 Foyer	10:15 - 11:45 SESSION 6 – Paper Presentations Las Vegas 3	
11:00 - 11:45 SESSION 2 – Keynote Speech Las Vegas 1 & 2 & 3	12:00 - 1:00 Conference Luncheon Skyview 2 (Resort Tower)	
12:00 - 1:00 Conference Luncheon Las Vegas 4	1:30 - 2:45 SESSION 7 – Paper Presentations Las Vegas 3	
1:30 - 2:45 SESSION 3 – Paper Presentations Las Vegas 3		
2:45 - 3:00 Coffee Break Las Vegas 1 & 2 & 3 Foyer		
3:00 - 4:30 SESSION 4 – Paper Presentations Las Vegas 3		
5:30 - 7:00 Welcome Reception Skyview 2 (Resort Tower)		

DSIS Technical Sessions

SESSION 1: Keynote Speech

Chair: Dr. Feng-Bin Sun (Tesla Motors, USA)

Predicted Reliability - A Key Deliverable for Medical Devices

Eric Maass
Technical Fellow
Senior Director for Medtronic Restorative Therapy Group
Medtronic, USA

Abstract - Developing and producing medical devices involves two deliverables - the medical device and trust that the medical device will function reliably and free of harm. Predicted reliability melds engineering and probability -stochastic modeling of the functionality over a range of stresses, uses, misuses, and off-label uses. Whether the medical device is for single use or spanning years of medical application, providing this trust is both a duty for the patients and an opportunity for innovative approaches.

SESSION 2: Keynote Speech

Chair: Dr. Suprasad Amari (BAE Systems, USA)

Automated Machine Learning (AutoML), What It Is and How It Is Democratizing Machine Learning

Krishna Anumalasetty
Principal Product Manager
Microsoft, USA

Abstract - For a long time, building Machine Learning solutions required an Advance degree such as Ph.D. in Mathematics, Computer Science or Statistics etc. Recent innovations and advent of AutoML is revolutionizing the way Machine Learning solutions are built. AutoML is enabling domain experts with little knowledge of ML build ML-based solutions for their problems getting the most of the vast amounts of data residing in the organizations. In addition, AutoML is powering many applications, such as Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) applications, to offer Artificial Intelligent (AI) based solutions within their systems. Learn what AutoML is, and how Microsoft is leveraging AutoML to infuse AI into all its products.

SESSION 3: Data Analytics and Machine Learning

Chair: Prof. Michael Grottke (GfK SE, Global Data Science, Germany)

Automated Process for Data Acquisition, Analysis, and Preprocessing

Rosemarie Day *(Worcester Polytechnic Institute, USA)*
Alexander Shoop *(Worcester Polytechnic Institute, USA)*
Adarsh Jaiswal *(Findability Sciences, India)*
Jack Zhang *(Worcester Polytechnic Institute, USA)*
Xiao Du *(Worcester Polytechnic Institute, USA)*
Manasee Godsay *(Worcester Polytechnic Institute, USA)*
Fatemeh Emdad *(Worcester Polytechnic Institute, USA)*
Chun-Kit Ngan *(Worcester Polytechnic Institute, USA)*
Elke Rundensteiner *(Worcester Polytechnic Institute, USA)*

The Number of Non-Competitive Matches in 2026 FIFA World Cup

Traian Marius Truta *(Northern Kentucky University, USA)*

Topic Word Selection for Topics Modeled with Latent Dirichlet Allocation
Laura Kölbl *(Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)*
Michael Grottke *(GfK SE, Global Data Science, Germany)*

SESSION 4: Big Data Modeling, Feature Selection and Prediction

Chair: Prof. Taghi M. Khoshgoftaar (Florida Atlantic University, USA)

Predicting Slow HTTP DoS Attacks with Severely Imbalanced Big Data
Chad Calvert *(Florida Atlantic University, USA)*
Taghi M. Khoshgoftaar *(Florida Atlantic University, USA)*
Clifford Kemp *(Florida Atlantic University, USA)*

Investigating Maxout Activation Functions in Speech and Sound Recognition
Gabriel Castaneda *(Florida Atlantic University, USA)*
Paul Morris *(Florida Atlantic University, USA)*
Taghi M. Khoshgoftaar *(Florida Atlantic University, USA)*

Module-Order Modeling with Feature Selection
Naeem Seliya *(Ohio Northern University, USA)*
Taghi M. Khoshgoftaar *(Florida Atlantic University, USA)*

Predicting Concussion Symptom Resolve Time in High School Athletes
Sara Landset *(Florida Atlantic University, USA)*
Taghi M. Khoshgoftaar *(Florida Atlantic University, USA)*

SESSION 5: Statistical Learning Algorithms & Applications

Chair: Dr. Andrei V. Shcheprov (Fannie Mae, USA)

Application of Machine Learning for Failure Prediction in Manufacturing Process
Ivan Zajacko *(University of Zilina, Slovakia)*
Ivan Kuric *(University of Zilina, Slovakia)*
Tomas Gal *(University of Zilina, Slovakia)*

Using Hidden Markov Model to Perform Sequence Mining in Market Basket Data
Vijay Kumar Ravi *(Pennsylvania State University, USA)*

Methodology of Using Empirical Distributions of Binary Prediction Scores to Solve Business Optimization Problems
Andrei V. Shcheprov *(Fannie Mae, USA)*
Srinivas Krovvidy *(Fannie Mae, USA)*
Hernando A. Vera *(Fannie Mae, USA)*

SESSION 6: Machine Learning & Intelligent Modeling Systems

Chair: Prof. Hoang Pham (Rutgers University, USA)

Enhanced Underground Object Detection with Conditional Adversarial Networks
Will Rice *(University of Tennessee at Chattanooga, USA)*
Maxwell Omwenga *(University of Tennessee at Chattanooga, USA)*
Dalei Wu *(University of Tennessee at Chattanooga, USA)*
Yu Liang *(University of Tennessee at Chattanooga, USA)*

Sentiment Analysis of Women Driving in Saudi Arabia
Hanan Muhajab *(Kent State University, USA)*
Kambiz Ghazinour *(Kent State University, USA)*

Intelligent Snoring Detection Method using the Intervals of Snoring Sound
Byung Mun Lee *(Gachon University, Korea)*

SESSION 7: Data Mining and Deep Machine Learning

Chair: Prof. Ivan Kuric (University of Zilina, Slovakia)

Deep Learning-based Scene Understanding Model for Assistive System Related to Alzheimer's Patients
Ke Xu *(Purdue University, USA)*
Suranjan Panigrahi *(Purdue University, USA)*

Extended Coupled Probabilistic Timed Automata for Monitoring Eating Activities of Elderly Person
Hanan Nasser Muhajab *(Kent State University, USA)*

Parameter Identification of Fixtures Based on Artificial Neural Networks and Regression Analysis for Ensuring the Efficient Machining
Vitalii Ivanov *(Sumy State University, Ukraine)*
Ivan Pavlenko *(Sumy State University, Ukraine)*
Ivan Kuric *(University of Zilina, Slovakia)*
Vladyslav Andrusyshyn *(LLC "Center of Technological Initiatives", Ukraine)*

SESSION 8: Cloud Computing and Service Data Analysis

Chair: Dr. Naeem Seliya (Ohio Northern University, USA)

Towards Parsimonious Sociology Theory Construction with Neural Embeddings and Semantic Analysis
Mingzhe Du *(University of South Carolina, USA)*
Zaid Alibadi *(University of South Carolina, USA)*
Jose M. Vidal *(University of South Carolina, USA)*
Barry Markovsky *(University of South Carolina, USA)*

Sentiment Polarity Analysis of Chinese Movie Reviews
Shilpa Balan *(California State University, Los Angeles, USA)*
Yangyang Jia *(California State University, Los Angeles, USA)*
Kathryn Joy Mak *(California State University, Los Angeles, USA)*
Linray Song *(California State University, Los Angeles, USA)*

Waterfall ranking and filtering optimization
Liang Dai *(University of California Santa Cruz, USA)*
Ram Akella *(University of California Santa Cruz, USA)*

Thank you for contributing and participating in the ISSAT DSIS 2019 conference

We hope you enjoy the entire program