IEEE IRI 2019 Program
V2.2.20190730

IEEE IRI Conference Day 1: Tuesday, July 30, 2019

8am-5:30pm	Conference Registration (*Conference Registration Desk*) (Outside of Seminar Room)
7:30-8:30am	Informal Meet & Greet
8:30-9:00	Welcome, Conference Opening Remarks (Seminar Room)
9-10AM	**Keynote 1:** **Huan Liu** ***Professor, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, Texas, USA*** **Some New Data Challenges in Data Science** **Session Chair**: Stuart H. Rubin SPAWAR Systems Center Pacific (SSC-Pacific) (Seminar Room)
10:00 –10:20 am	Coffee Break (Outside of Seminar Room)
10:30am-11:50noon	**Session A1**
10:30am-11:50noon	Session A11 **A11: Machine Learning and AI I:** (Seminar Room) Chair: Taghi Khoshgoftaar, Florida Atlantic University
017	Combining Data Mining Techniques for Evolutionary Analysis of Programming Languages Rafael Almeida, Vinicius Durelli, Igor Campos, Matheus Viana, Darlinton Carvalho, Diego Dias and Leonardo Rocha
056	Evaluating Model Predictive Performance: A Medicare Fraud Detection Case Study Richard Bauder, Matthew Herland and Taghi Khoshgoftaar
114	Evaluation of a Reusable Technique for Refining Social Media Query Criteria for Crowd-Sourced Sentiment for Decision Making Kimberley Hemmings-Jarrett, Julian Jarrett, M. Brian Blake
10:30am-11:50noon	Session A12 **A12: Predictive Data Analysis & Business Intelligence** (Room 210) Chair: Chuan-Jie Lin, National Taiwan Ocean University
011	How do firms transact? Guesstimation and Validation of Financial Transaction Networks with Satisfiability Christos Tsigkanos, Alessio Arleo, Johannes Sorger and Schahram Dustdar
103	A Stock Index Prediction Framework: Integrating Technical and Topological Mesoscale Indicators Zi Qi, Zhan Bu, Xi Xiong, Hongliang Sun, Jie Cao and Chengcui Zhang
060	Machine Learning for Classification of Economic Recessions Bruce Jackson and Manjeet Rege
10:30am-11:50noon	**The 2019 Workshop on Data Analytics and User Behavior** **(DARB 2019)** (Room 211) Chair: Mohamed Shehab, Jinpeng Wei
801	A Framework for the Analysis of Biomechanical Loading using Human Motion Tracking Jan Paul Vox, Frank Wallhoff
802	A Trusted Bluetooth Performance Evaluation Model for Brain Computer Interfaces Hassan Karim, Danda Rawat
11:50am-1:15pm	**Lunch break** (On your own)

1:15pm – 2:15pm	**Keynote 2:** **Matthew C. Stafford** ***Chief Learning Officer, US Air Force's Air Education and Training Command, Joint Base San Antonio, Texas, USA*** **"Chameleons" – Actors Who Can "Play Any Part": Your Data Can Have a Starring Role Too!** **Session Chair**: Stuart H. Rubin SPAWAR Systems Center Pacific (SSC-Pacific) (Seminar Room)
2:25-3:55 pm	**Session A2**
2:25-3:55 pm	Session A21 **A21: Machine Learning and AI II:** (Seminar Room) Chair: Danda Rawat, Howard University
019	Example-based feature tweaking using random forests Tony Lindgren, Panagiotis Papapetrou, Lars Asker and Isak Samsten
063	ADQuaTe: An Automated Data Quality Test Approach for Constraint Discovery and Fault Detection Hajar Homayouni, Sudipto Ghosh and Indrakshi Ray
023	Towards Interpretable Deep Extreme Multi-label Learning Yihuang Kang, I-Ling Cheng, Wenjui Mao, Bowen Kuo and Pei-Ju Lee
2:25-3:55 pm	Session A22 **A22: Computer Security and Forensics:** (Room 210) Chair: Jinpeng Wei, University of North Carolina, Charlotte
049	Variational Encoder-Decoder Recurrent Neural Network (VED-RNN) for anomaly prediction in a host environment Lydia Bouzar-Benlabiod, Lila Meziani, Stuart Rubin, Kahina Belaidi and Nour El Houda Haddar
067	A Comparison of Performance Metrics with Severely Imbalanced Network Security Big Data Tawfiq Hasanin, Taghi Khoshgoftaar and Joffrey Leevy
111	A Trust Aware Unsupervised Learning Approach for Insider Threat Detection Maryam Aldairi, Leila Karimi, James Joshi
2:25-3:55 pm	Session A23 **A23: Novel Data Mining and Machine Learning Applications I:** (Room 211) Chair: Danda Rawat, Howard University
027	GO-FOR: A Goal-Oriented Framework for Ontology Reuse Cássio Reginato, Monalessa Barcellos, Gabriel Nogueira, Jordana Salamon, Vítor Souza and Maxwell Monteiro
043	A Sentiment Classification in Bengali and Machine Translated English Corpus Salim Sazzed and Sampath Jayarathna
053	Software Quality Prediction: An Investigation based on Machine Learning Jayalakshmi Raman and Sandeep Reddivari
064	Enhancing Software Requirements Cluster Labeling Using Wikipedia Sandeep Reddivari
3:55pm – 4:10pm	Coffee Break (Outside of Seminar Room)
4:10-5:40pm	**Panel I:** **On Expanding the Impact of Data Science on the Theory of Intelligence and Its Applications** Panel Chair: Stuart H. Rubin (Seminar Room)
6:00 pm Onwards	**Reception** **(Second Floor Mezzanine)**

IEEE IRI Conference Day 2: Wednesday, July 31, 2019

8am-5:30pm	Conference Registration (*Conference Registration Desk*)(Outside of Seminar Room)
7:00-8:30am	Informal Meet & Greet (Breakfast Provided by IRI Conference) (Outside of Seminar Room)
9-10AM	**Keynote 3:** **Aidong Zhang** ***William Wulf Faculty Fellow and Professor of Computer Science*** ***University of Virginia, USA*** **Graph Neural Networks for Supporting Knowledge-Data Integrated Machine Learning** (Seminar Room) **Session Chair**: Stuart H. Rubin SPAWAR Systems Center Pacific (SSC-Pacific)
10:00 –10:20 am	Coffee Break (Outside of Seminar Room)
10:30am-11:50am	Session B1
10:30am-11:50am	Session B11 **Visual Analytics I:** (Seminar Room) Chair: Chengcui Zhang, University of Alabama at Birmingham
107	Genetic Algorithm based Deep Learning Model Selection for Visual Data Classification Haiman Tian, Shu-Ching Chen, Mei-Ling Shyu
021	Deep Learning with Maxout Activations for Visual Recognition and Verification Gabriel Castaneda, Paul Morris and Taghi Khoshgoftaar
041	Texture Image Categorization in Wavelet Domain via Naive Bayes Classifier Based on Laplace and Generalized Gaussian Distribution Muhammad Azam and Nizar Bouguila
10:30am-11:50am	Session B12 **Biomedical Applications:** (Room 210) Chair: Sampath Jayarathna, Old Dominion University
040	Analysis of Temporal Relationships between ASD and Brain Activity through EEG and Machine Learning Yasith Jayawardana, Mark Jaime and Sampath Jayarathna
047	Scalable Action Mining for Recommendations to Reduce Hospital Readmission Arunkumar Bagavathi and Angelina A. Tzacheva
102	Deep Multi-task Learning for Interpretable Glaucoma Detection Nooshin Mojab, Vahid Noroozi, Philip S. Yu, Joelle A. Hallak
10:30am-11:50am	Session B13 **Big Data Computing:** (Room 211) Chair: Yihuang Kang, National Sun Yat-sen University, Taiwan
065	Deep Learning and Data Sampling with Imbalanced Big Data Justin Johnson and Taghi Khoshgoftaar
104	Towards Federated Learning Approach to Determine Data Relevance in Big Data Ronald Doku, Danda B. Rawat and Chunmei Liu
112	A Power Efficient Neural Network Implementation on Heterogeneous FPGA and GPU Devices Yuexuan Tu, Sadiq Saad, Yudong Tao, Mei-Ling Shyu, Shu-Ching Chen
11:50am-1:15pm	**Lunch break** (On your own)
1:15pm – 2:15pm	**MITs Lottery Ticket Hypothesis for Training Neural Networks** ***Invited Presentation*** **Stuart H. Rubin & Shu-Ching Chen** (Seminar Room)

2:25-3:55 pm	Session B2
2:25-3:55 pm	Session B21 **Novel Data Mining and Machine Learning Applications II:** (Seminar Room) Chair: Bharat Rawalkshatriya, The Pennsylvania State University
110	A Framework for Airfare Price Prediction: A Machine Learning Approach Tianyi Wang, Samira Pouyanfar, Haiman Tian, Yudong Tao, Miguel Alonso Jr., Steven Luis and Shu-Ching Chen
037	Eye Tracking Area of Interest in the Context of Working Memory Capacity Tasks Gavindya Jayawardena, Anne Michalek and Sampath Jayarathna
051	An Ensemble Machine Learning Method for Single and Clustered Cervical Cell Classification Mohammed Kuko and Mohammad Pourhomayoun
059	Technological Advancements in Post-Traumatic Stress Disorder Detection: A Survey Bathsheba Farrow and Sampath Jayarathna
2:25-3:55 pm	Session B22: **Databases and Access** (Room 210) Chair: Jinpeng Wei, University of North Carolina, Charlotte
036	Towards a Visualization-Driven Approach to Database Benchmarking Analysis Dippy Aggarwal and Shreyas Shekhar
031	A Middleware for Polyglot Persistence of RDF Data into NoSQL Databases Luiz Henrique Zambom Santana and Ronaldo Mello
106	On the Feasibility of Attribute-Based Access Control Policy Mining Shuvra Chakraborty, Ravi Sandhu, and Ram Krishnan
039	Renovating Database Applications with Query AutoAwesome Chetna Suryavanshi, Curtis Dyreson and Jonathan Adams
2:25-3:55 pm	Session B23: **Visual Analytics II:** (Room 211) Chair: Chengcui Zhang, University of Alabama at Birmingham
001	3D Points Localization Using Defocused Images Dongzhen Wang and Daqing Huang
010	Data Clustering using Online Variational Learning of Finite Scaled Dirichlet Mixture Models Hieu Nguyen, Meeta Kalra, Muhammad Azam and Nizar Bouguila
042	Feature-based Understanding of Human Emotions Jonathon Moody, Dong Hyun Jeong and Soo-Yeon Ji
057	Automated Neural Network Construction with Similarity Sensitive Evolutionary Algorithms Haiman Tian, Shu-Ching Chen, Mei-Ling Shyu and Stuart Rubin
3:55pm – 4:10pm	Coffee Break (Outside of Seminar Room)
4:10pm – 5:30pm	Session B3 **Demo and short paper poster session:** Chair: Chengcui Zhang, The University of Alabama at Birmingham (Outside of Seminar Room)
062	Hibiki: A Graph Visualization of Asian Music Keith Wu and Manjeet Rege
004	Hand Gesture Recognition with Convolution Neural Networks Felix Zhan
050	Machine Learning Findings on Geospatial Data of Users from the TrackYourStress mHealth Crowdsensing Platform Rüdiger Pryss, Dennis John, Manfred Reichert, Burkhard Hoppenstedt, Lukas Schmid, Winfried Schlee, Myra Spiliopoulou, Johannes Schobel, Robin Kraft, Marc Schickler, Berthold Langguth and Thomas Probst
6:00-9:30pm	**Banquet/Social Dinner & Awards Ceremony** **(Second Floor Mezzanine)**

IEEE IRI Conference Day 3: Thursday, Aug 1, 2019

8am-5pm	Conference Registration (*Conference Registration Desk*) (Outside of Seminar Room)
7:30-8:30am	Informal Meet & Greet (Outside of Seminar Room)
8:30-10:00 AM	**Panel II:** **Integration of Artificial Intelligence and Security** Chair: Bhavani Thuraisingham, University of Texas, Dallas (Seminar Room)
10:00 –10:20 am	Coffee Break (Outside of Seminar Room)
10:30am-11:50am	**Session C1**
10:30am-11:50am	Session C11 **Social Networks and Media:** (Seminar Room) Chair: Danda Rawat, Howard University
014	A non-cooperative game model for overlapping community detection in social networks Huan Yang, Zhan Bu, Yuyao Wang, Xi Xiong and Chengcui Zhang
108	Context-based Knowledge Discovery and Querying for Social Media Data Jedsada Phengsuwan, Nipun Balan Thekkummal, Rui Sun, Tejal Shah, Philip James, Dhavalkumar Thakker, Divya Pullarkatt, T. Hemalatha, Maneesha Vinodini Ramesh, Rajiv Ranjan
015	EmoWei : Emotion-Oriented Personalized Weight Management System Based on Sentiment Analysis Jihyeon Kim and Uran Oh
10:30am-11:50am	Session C12 **Data Modeling and Knowledge Base:** (Room 210) Chair: Wei-Bang Chen, Virginia State University
101	DDM: Data-Driven Modeling of Physical Phenomenon with Application to METOC Stuart H. Rubin, Lydia Bouzar-Benlabiod
105	An Overview of Utilizing Knowledge Bases in Neural Networks for Question Answering Sabin Kafle, Nisansa de Silva, Dejing Dou
035	Scalable analysis of open data graphs Andrei Stoica, Michael Valdron and Ken Pu
11:50am-1:15pm	**Lunch break** (On your own)
1:15pm – 2:45pm	**Session C2**
1:15pm – 2:45pm	Session C21 **Information Systems** (Seminar Room) Chair: Wei-Bang Chen, Virginia State University
066	Mimicking Human Behavior in Shared-Resource Computer Networks Brian Ricks, Bhavani Thuraisingham and Patrick Tague
013	A Conceptual Model for Systems-of-Information Systems Juliana Fernandes, Francisco H. C. Ferreira, Felipe Cordeiro, Valdemar V. Graciano Neto and Rodrigo Santos
113	A Comparative Study of System Virtualization Performance Anthony Tsetse, Samuel Tweneboah-Koduah, Bharat S Rawal, Zhihao Zheng, Manoah Prattipati

1:15pm – 2:45pm	**The 8th IEEE International Workshop on Data Integration and Mining** **(DIM 2019)** (Room 210) Chair: Chengcui Zhang, University of Alabama at Birmingham
614	Fake News Detection using Bayesian Inference Fatma Najar, Nuha Zamzami and Nizar Bouguila
616	Billion-Scale Matrix Compression and Multiplication with Implications in Data Mining Michael Nelson, Sridhar Radhakrishnan and Chandra N. Sekharan
1:15pm – 2:45pm	**The 8th IEEE International Workshop on Empirical Methods for Recognizing Inference in TExt** **(IEEE EM-RITE 2019)** (Room 211) Chair: Min-Yuh Day, Yoshinobu Kano, Chuan-Jie Lin
701	AI Affective Conversational Robot with Hybrid Generative-based and Retrieval-based Dialogue Models Min-Yuh Day and Chi-Sheng Hung
702	Preliminary study of relationship between health behavior and breast cancer Kuo-Chung Chu, M.Y. Xiao, C.H. Chang, C.H. Hsiao and Y.C. Jiang
703	Using BERT to Process Chinese Ellipsis and Coreference in Clinic Dialogues Chuan-Jie Lin, Chao-Hsiang Huang and Chia-Hao Wu
	End