CONFERENCE SCHEDULES

THE 2019 WORLD CONGRESS IN COMPUTER SCIENCE
COMPUTER ENGINEERING AND
APPLIED COMPUTING

CSCE'19

July 29 - August 01
Las Vegas, Nevada
USA
REGISTRATION DATES AND TIMES & CONFERENCE PACKAGE PICKUP

July 28, 2019 (Sunday):
03:00pm - 07:00pm
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 29, 2019 (Monday):
07:00am - 05:00pm
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 30, 2019 (Tuesday):
07:00am - 05:00pm
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 31, 2019 (Wednesday):
07:00am - 05:00pm
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

August 1, 2019 (Thursday):
07:00am - 05:00pm
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

CONFERENCE RECEPTION DINNER / SOCIAL

July 29, 2019 (Monday)
07:30 - 10:30pm
(LOCATION: Egyptian Ballroom)
CONFERENCES ACRONYMS AND THEIR FULL TITLES

ACC'19: The 3rd International Conference on Applied Cognitive Computing

BIOCOMP'19: The 20th International Conference on Bioinformatics & Computational Biology

BIOENG'19: The 5th International Conference on Biomedical Engineering and Sciences

CSC'19: The 17th International Conference on Scientific Computing

EEE'19: The 18th International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government

ESCS'19: The 17th International Conference on Embedded Systems, Cyber-physical Systems, and Applications

FCS'19: The 15th International Conference on Foundations of Computer Science

FECS'19: The 15th International Conference on Frontiers in Education: Computer Science and Computer Engineering

GCC'19: The 15th International Conference on Grid, Cloud, and Cluster Computing

HIMS'19: The 5th International Conference on Health Informatics and Medical Systems

ICAI'19: The 21st International Conference on Artificial Intelligence

ICDATA'19: The 15th International Conference on Data Science

ICOMP'19: The 20th International Conference on Internet Computing and IoT

ICWN'19: The 18th International Conference on Wireless Networks

IKE'19: The 18th International Conference on Information & Knowledge Engineering

IPCV'19: The 23rd International Conference on Image Processing, Computer Vision, & Pattern Recognition

MSV'19: The 16th International Conference on Modeling, Simulation and Visualization Methods

PDPTA'19: The 25th International Conference on Parallel and Distributed Processing Techniques and Applications

SAM'19: The 18th International Conference on Security and Management

SERP'19: The 17th International Conference on Software Engineering Research and Practice
PARTIAL LIST OF ADDITIONAL KEYNOTES, INVITED TALKS, & PANEL DISCUSSIONS AND TUTORIALS

These talks are in addition to the focused keynotes/invited talks that appear in the individual conference schedules. The talks are open to all attendees and are scheduled in a way that various targeted attendees can attend/participate in them. Therefore, this list should be considered as a partial one.

0. CONGRESS WELCOME REMARKS AND REPORT (July 29)
   Prof. Hamid R. Arabnia
   (Chair, Steering Committee & Coordinator); Professor of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC)
   Date and time: July 29, 2019 (Monday); 08:30am - 09:00am
   LOCATION: Galleria B-C

0. KEYNOTE LECTURE: (July 29)
   INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING
   Prof. Diego Galar
   Professor of Lulea University of Technology, Sweden; Head of Maintenance & Reliability, Tecnalia, Spain (multi-national); Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe
   Date and time: July 29, 2019 (Monday); 09:00am - 10:00am
   LOCATION: Galleria B-C

0. GENERAL: (July 29)
   INITIATIVES & PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY RESEARCHERS AND PHD STUDENTS IN AFRICA AND MOST DEVELOPING COUNTRIES
   Nnenna Christine Martin
   Researchlink International Inc., Greensboro, North Carolina, USA
   Date and time: July 29, 2019 (Monday); 10:00am - 10:15am
   LOCATION: Galleria B-C

0. ICDATA, INVITED TALK: (July 29)
   DATA SCIENCE: AN INTERDISCIPLINARY PERSPECTIVE
   Dr. Peter Geczy
   National Institute of Advanced Industrial Science and Technology (AIST), Japan
   Date and time: July 29, 2019 (Monday); 11:00am - 12:20pm
   LOCATION: Galleria B

0. SAM 2019 - KEYNOTE/INVITED LECTURE:
   CYBER SECURITY - PRIVACY: ARE WE ALL LIVING IN GLASS HOUSES? CAN I GET SOME PRIVACY, PLEASE?
   Prof. Levent Ertaul
   California State University, East Bay, California, USA; Fellowship, Lawrence Livermore National Laboratories (LLNL), Cyber Defenders Program, USA
   Date and time: July 29, 2019 (Monday); 01:30pm - 03:00pm
   LOCATION: Galleria A

0. ICDATA 2019 - TUTORIAL TALK (July 29)
   PREDICTING WITH CONFIDENCE - CONFORMAL PREDICTION AND VENN PREDICTORS
   Prof. Ulf Johansson
   Department of CS & Informatics, Jonkoping University, Sweden
   Date and time: July 29, 2019 (Monday); 03:40pm - 05:40pm
   LOCATION: Galleria B
O. KEYNOTE LECTURE: (July 30)
ENGINEERING: MODELING & SIMULATION SOLUTIONS
Dr. Douglas D. Hodson
Department of Electrical and Computer Engineering, Air Force
Institute of Technology, USA
Date and time: July 30, 2019 (Tuesday); 01:00pm - 01:40pm
LOCATION: Galleria E

O. SAM 2019 - KEYNOTE/INVITED LECTURE: (July 30)
PRESCRIPTIVE ANALYTICS IN INFRASTRUCTURE SECURITY: FROM REHSTRAIN TO THE ERA OF QUANTUM ADVANTAGE
Dr. Maximilian Moll
University of the Federal Armed Forces Munich, Germany
Date and time: July 30, 2019 (Tuesday); 01:30pm - 03:00pm
LOCATION: Galleria A

O. KEYNOTE/INVITED LECTURE: (July 30)
WHAT I WISH I HAD KNOWN ABOUT GIVING TECHNICAL PRESENTATIONS AND DOING TECHNICAL WRITING
Prof. H. J. Siegel
Fellow of the IEEE; Fellow of the ACM; Department of Electrical and Computer Engineering and Department of Computer Science;
Colorado State University, Fort Collins, Colorado, USA
Date and time: July 30, 2019 (Tuesday); 03:40pm - 04:40pm
LOCATION: Galleria D

O. ICDATA 2019 - KEYNOTE/INVITED/TUTORIAL LECTURE: (July 30)
DEVELOPING DATA SCIENCE & ANALYTICS RELATED COMPETENCES AND PROFESSIONAL SKILLS: PRACTICAL RECOMMENDATIONS TO DATA SCIENCE JOB SEEKERS, EDUCATOR AND TEAM MANAGERS
Yuri Demchenko
University of Amsterdam, The Netherlands
Date and time: July 30, 2019 (Tuesday); 03:40pm - 06:00pm
LOCATION: Galleria B

O. ICDATA 2019 - TUTORIAL: (July 30)
WHAT’S YOURS IS MINE: HOW MODERN ATTACKERS ARE STEALING YOUR DATA
Andrew Johnston
Mandiant (Consultant)
Date and time: July 30, 2019 (Tuesday); 06:00pm - 08:00pm
LOCATION: Galleria B

O. KEYNOTE/INVITED TUTORIAL: (July 31)
BIG DATA ANALYTICS WITH SPARK
Prof. Mark C. Lewis
Trinity University, San Antonio, Texas, USA
Date and time: July 31, 2019 (Wednesday); 10:40am - 11:40am
LOCATION: Galleria E

O. KEYNOTE/INVITED LECTURE: (July 31)
CHANGES IN ABET CRITERIA: A SUMMARY OF RECENT CHANGES
Prof. Benjamin J. Bishop, Ph.D
Professor of Computing Sciences,
University of Scranton, Pennsylvania, USA
Date and time: July 31, 2019 (Wednesday); 01:00pm - 01:40pm
LOCATION: Galleria D
0. SAM 2019 - KEYNOTE/INVITED LECTURE: (July 31)
   IRIS INTELLIGENT REACH BACK INFORMATION SYSTEMS: FROM REHSTRAIN
   TO SANCTUM - A NEW SECURITY ARCHITECTURE
   Prof. Stefan Wolfgang Pickl
   Board Member, German Committee for Disaster Reduction (DKKV);
   Chair, Operations Research and Director of the Core Competence
   Center for Operations Research (COMTESSA)
   Date and time: July 31, 2019 (Wednesday); 01:20am - 03:00pm
   LOCATION: Galleria A

0. KEYNOTE/INVITED LECTURE: (July 31)
   CHANGES IN ABET CRITERIA: ARE YOU PREPARED FOR THE ACCREDITATION
   VISIT?
   Prof. Mudasser F. Wyne, Ph.D
   Professor of Computer Science, Department of Computer Science and
   Information Systems, School of Engineering and Computing,
   National University, San Diego, California, USA
   Date and time: July 31, 2019 (Wednesday); 01:40pm - 02:40pm
   LOCATION: Galleria D

0. ICDATA 2019 - TUTORIAL: (July 31)
   DIGITAL TWINS DEVELOPMENT AND DEPLOYMENT IN BOTTOM UP APPROACH
   Prof. Diego Galar
   Professor of Lulea University of Technology, Sweden;
   Head of Maintenance & Reliability, Tecnalia, Spain (multi-national);
   Coordinator of several H2020 projects in cyber physical systems,
   Industry 4.0, IoT, & industrial Big Data, Europe
   Date and time: July 31, 2019 (Wednesday); 03:40pm - 05:40pm
   LOCATION: Galleria B
ICAI'19 + ACC'19 + HIMS'19 + BIOCOMP'19 + BIOENG'19
CONFERENCE SCHEDULES

The Proceedings are available at
https://americancse.org/events/csce2019/proceedings

These conferences have significant topical overlap. The Steering Committee, in consultation with the program committees of these conferences, decided to merge the presentation schedules of these conferences into one comprehensive program to facilitate increased opportunities for cross-fertilization across these research topics. Therefore, the conference attendees, speakers, and participants should be mindful of the fact that there are a number of Concurrent sessions in this comprehensive schedule.

ICAI’19:    The 21st International Conference on Artificial Intelligence
+ ACC’19:     The 3rd International Conference on Applied Cognitive Computing
+ HIMS’19:    The 5th International Conference on Health Informatics and Medical Systems
+ BIOCOMP’19: The 20th International Conference on Bioinformatics & Computational Biology
+ BIOENG’19:  The 5th International Conference on Biomedical Engineering and Sciences

In addition, there are a number of other sessions (not listed as part ICAI’19, ACC’19, HIMS’19, BIOCOMP’19, BIOENG’19) that are of potential interest (sessions belonging to other joint conferences). Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in CSC (Scientific Computing), EEE (e-Learning, e-Business), FECS (CS & CE Education), ICDATA (Data Science), IKE (Information & Knowledge Engineering), IPCV (Vision), PDPTA (Parallel and Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of ICAI, ACC, HIMS, BIOCOMP, and BIOENG; these have been scheduled so that many attendees can also participate in them.

Each conference is divided into a number of topical sessions. These sessions are not necessarily scheduled in the same room/location. Therefore, conference attendees are to check the location of the tracks they wish to attend; The conference room numbers (locations) appear in this document.

July 28

03:00p - 07:00p:  REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:30 - 09:00am: CONGRESS WELCOME REMARKS - July 29, Monday:
Prof. Hamid R. Arabnia (Chair, Steering Committee & Coordinator), Department of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC).
(LOCATION: Galleria B-C)

09:00 - 10:00am: KEYNOTE LECTURE - July 29, Monday:
INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING
Prof. Diego Galar
Professor of Lulea University of Technology, Sweden; Head of Maintenance & Reliability, Tecnalia, Spain; Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe.
(LOCATION: Galleria B-C)

10:00 - 10:15am: INITIATIVES & PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY RESEARCHERS & PHD STUDENTS IN AFRICA & MOST DEVELOPING COUNTRIES
Nnenna Christine Martin
ResearchLink International Inc., North Carolina, USA
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK
SESSION 1-ICAI: AUTONOMOUS SYSTEMS & APPLICATIONS + SCHEDULING METHODS + SWARM ALGORITHMS RELATED ISSUES
Co-Chairs: Dr. James Crowder* & Prof. Ajay K. Katangur**
* Colorado Engineering, Inc., Colorado, USA; ** Professor & Department Head of Computer Science, Missouri State University, Missouri, USA
July 29, 2019 (Monday); 10:40am - 12:40pm
(LOCATION: Galleria C)

10:40 - 11:00am: Systems Level Thinking for Artificial Intelligent Systems
James A. Crowder, Shelli Friess
Colorado Engineering Inc., Colorado Springs, Colorado, USA; School of Counseling, Walden University, Minneapolis, USA

11:00 - 11:20am: AI in a Small Space: A Small Architecture Solution for Self-Driving Enhancements to a Remote Control Car
Rory Butler, Ralph Butler, Chrisila Pettey
Department of Computer Science, Middle Tennessee State University, Murfreesboro, Tennessee, USA

11:20 - 11:40am: Control Strategy to Increase Sustainability of Output from DC Micro-Grid to AC Micro-Grid
Azzam ul Asar, Muhammad Shahid Laiq, Mudasser Wyne
CECOS University, Peshawar, Pakistan; National University, California, USA

11:40a - 12:00p: Fuzzy Collision Avoidance Algorithm for UAVs
James A. Crowder, John N. Carbone
Colorado Engineering Inc., Colorado Springs, Colorado, USA; Department of Electrical and Computer Engineering, Southern Methodist University, Dallas, Texas, USA

12:00 - 12:20pm: Light Weight Generation of Dispatching Rules for Large-Scale Job Shop Scheduling
Erich Teppan
Universitaet Klagenfurt, Austria

12:20 - 12:40pm: Identifying the Optimal Solutions of Bohachevsky Test Function Using Swarming Algorithms
Aakif Mairaj, Ali Al Bataineh, Devinder Kaur, Ahmad Javaid
Department of EECS, The University of Toledo, Ohio, USA

12:40 - 01:20pm: LUNCH (On Your Own)
SESSION 2-ICAI:  DEEP LEARNING, RECURRENT NEURAL NETWORK, CONVOLUTIONAL NEURAL NETWORKS, DATA SCIENCE & APPLICATIONS
Co-Chairs: Prof. Mark C. Lewis* & Arka Chakraborty**
* Department of Computer Science, Trinity University, San Antonio, Texas, USA;
** University of Virginia, Charlottesville, Virginia, USA
July 29, 2019 (Monday); 01:20pm - 03:00pm
(LOCATION: Galleria C)

01:20 - 01:40pm:  Short Term Load Forecasting Using Recurrent and Feedforward Neural Networks
Andrew Loder, Mark C. Lewis
Department of Computer Science, Trinity University, San Antonio, Texas, USA

01:40 - 02:00pm:  Performance Comparison between Machine Learning based LTE Downlink Grant Predictors
Abdullah Nisar, Jonathan Ah Sue, Jurgen Teich
Intel Deutschland GmbH, Munich, Bayern, Germany; Friedrich-Alexander-Universitat Erlangen-Nurnberg, Germany

02:00 - 02:20pm:  Ablation Studies to Uncover Structure of Learned Representations in Artificial Neural Networks
Richard Meyes, Melanie Lu, Constnatin Waubert de Puiseau, and Tobias Meisen
Chair of Technologies and Management of Digital Transformation, Bergische Universitat Wuppertal, Germany; Institute of Information Management in Mechanical Engineering, RWTH Aachen University, Germany

02:20 - 02:40pm:  Estimating TCP RTT with LSTM Neural Networks
Bikramjit Dasgupta, Damian Valles, Stan Mcclellan
Ingram School of Engineering, Texas State University, San Marcos, Texas, USA

02:40 - 03:00pm:  A Basic Recurrent Neural Network Model
Fathi M. Salem
Department of Electrical and Computer Engineering, Circuits, Systems and Neural Networks Laboratory, Michigan State University, East Lansing, Michigan, USA
03:00 - 03:40pm: POSTER DISCUSSION SESSION A-ICAI-BIOENG
July 29, 2019 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

- Recent Approaches in Prognostics: State of the Art
  Mohan Sri Krishna Kopuru, Shahram Rahimi, and
  Kourosh T. Baghaei
  Department of CSE, Mississippi State University, USA

- Towards a Twitter-Based Prediction Tool for Digital Currency
  Mason McCoy, Shahram Rahimi
  Department of CS, Southern Illinois University, Carbondale,
  Illinois, USA; Department of CSE, Mississippi State
  University, Mississippi, USA

- Design of Catalysts for the SO2 to SO3 Reaction Using
  Artificial Intelligence
  Ariel Boucheikhchoukh, Clemence Fauteux-Lefebvre, and
  Jules Thibault
  Department of Chemical & Biological Engineering,
  University of Ottawa, Ottawa, Ontario, Canada

- Predictive Analytics for Left Without Treatment in the Emergency
  Departments
  Harish Kumar, Shahram Rahimi, Alexander Sommers,
  Sean Bozorgzad, and Alexander Stephens
  Department of Computer Science and Engineering, Mississippi
  State University, Mississippi, USA; Health Technology
  Department, Potentia Analytics Inc., Carbondale, IL, USA

- ...
SESSION 3-HIMS: HEALTH INFORMATICS AND MEDICAL SYSTEMS
Co-Chairs: Dr. Bogdan Armaseslu*, Jonathan Fowler**, & Hal Li***
* University of Texas at Dallas, Dallas, Texas, USA;
** Colorado Technical University, Colorado, USA;
***Merck Research Laboratories, Merck & Co., Inc., USA
July 29, 2019 (Monday); 03:40pm - 05:40pm
(LOCATION: Galleria C)

03:40 - 04:00pm: Modelling of Sickle Cell Anemia Patients Response to Hydroxyurea using Artificial Neural Networks
Brendan E. Odigwe, Jesuloluwa S. Eyiayto, Celestine I. Odigwe, and Homayoun Valafar
Department of Computer Science & Engineering, University of South Carolina, Columbia, South Carolina, USA;
Department of Computer of Science, Texas State University, San Marcos, Texas, USA; Department of Internal Medicine, University of Calabar Medical School, Calabar, Nigeria

04:00 - 04:20pm: AlgoDerm: An End-to-End Mobile Application for Skin Lesion Analysis and Tracking
Rashika Mishra, Ovidiu Daescu
Department of Computer Science, The University of Texas at Dallas, Texas, USA

04:20 - 04:40pm: Epileptic Seizure Detection Using Machine Learning Algorithms
Sarah Hadipour, Ala Tokhmpash, Bahram Shafai
Electrical and Computer Engineering, Northeastern University, Boston, Massachusetts, USA

04:40 - 05:00pm: A Decision Support System for Skin Cancer Recognition with Deep Feature Extraction and Multi Response Linear Regression (MLR)-Based Meta Learning
Md Mahmudur Rahman
Computer Science Department, Morgan State University, Baltimore, Maryland, USA

05:00 - 05:20pm: A Cloud-based Intelligent Remote Patient Monitoring Architecture
Khalid Alghatani, Abdelmounaam Rezgui
Department of Computer Science and Engineering, New Mexico Institute of Mining and Technology, Socorro, New Mexico, USA;
School of Information Technology, Illinois State University, Normal, Illinois, USA

05:20 - 05:40pm: Autism Therapeutic Device
Chuck Lopez, Josh Parkers, Roger Ian Konlog, Shoeb Saiyed, Daren Wilcox
Electrical and Computer Engineering Technology (ECET), Kennesaw State University, Marietta, Georgia, USA

05:40 - 06:00pm: FREE SLOT

07:30 - 10:30pm: CONFERENCE RECEPTION DINNER / SOCIAL
July 29 - Monday; 07:30pm
(LOCATION: Egyptian Ballroom)
SESSION 4-BIOCOMP: BIOINFORMATICS, NOVEL ALGORITHMS + COMPUTATIONAL SCIENCE AND BIO-INSPIRED COMPUTING
Chair: Prof. M. K. A. Ahamed Khan
UCSI University, Kualalumpur, Malaysia
July 30, 2019 (Tuesday); 08:20am - 10:20am
(LOCATION: Galleria C)

08:20 - 08:40am: Predicting Indications of Traditional Chinese Medicine Based on a Random Walk Model
Yu-Chen Kuo, Von-Wun Soo
Institute of Information Systems and Applications, National Tsing Hua University, Hsinchu, Taiwan; Department of Computer Science, National Tsing Hua University, Taiwan

08:40 - 09:00am: Semantic ECG Interval Segmentation Using Autoencoders
Hedayat Abrishami, Matthew Campbell, Chia Han, Richard Czosek, and Xuefu Zhou
Department of EECS, University of Cincinnati, Ohio, USA; Cardiology, Children’s Hospital of Philadelphia, PA, USA; Cincinnati Children’s Hospital Medical Center, Ohio, USA

09:00 - 09:20am: In silico Omics Analysis Suggest E2F efl-1 Transcription Factor Role in Caenorhabditis Elegans Viral Immunity
Mohammad Atashnak, Priyanka Mishra, Frederic Pio
Department of Molecular Biology and Biochemistry, Simon Fraser University, BC, Canada

09:20 - 09:40am: Improvements of the REDCRAFT Software Package
Casey A. Cole, Caleb Parks, Julian Rachele, Homayoun Valafar
Department of Computer Science and Engineering, University of South Carolina, Columbia, South Carolina, USA

09:40 - 10:00am: Proposal for a Gene Enrichment Analysis Assistant Tool
Adam Cankaya, Ravi Shankar
Department of Computer & Electrical Engineering and Computer Science, Florida Atlantic University, Boca Raton, USA

10:00 - 10:20am: Development of Predictive Models to Distinguish Metals from Non-metal Toxicants, and Individual Metal from One Another
Zongtao Yu, Yong Zhu, Junmei Ai, Bjarne Bartlett, Shaoqiu Chen, Jical Zhang, Bin Jiang, and Youping Deng
Department of Laboratory Medicine, Shiyan Taihe Hospital, College of Biomedical Engineering, Hubei University of Medicine, Hubei, China; National Center of Colorectal Disease, Nanjing Municipal Hospital of Chinese Medicine, the Third Affiliated Hospital, Nanjing University of Chinese Medicine, Nanjing, China; Departments of Internal Medicine, Rush University Medical Center, Chicago, Illinois, USA; Department of Complementary & Integrative Medicine, University of Hawaii, John A. Burns School of Medicine, Honolulu, USA

10:20 - 10:40am: BREAK
SESSION 5-ICAI: LEARNING METHODOLOGIES, MACHINE LEARNING, COGNITIVE COMPUTING, REASONING, AND APPLICATIONS
Co-Chairs: Dr. Charles Knadler* & Dr. Brent T. Langhals**
   * Utah Valley University, Utah, USA;
   ** Department of Systems Engineering & Management, Air Force Institute of Technology, USA
July 30, 2019 (Tuesday); 10:40am - 12:40pm
(LOCATION: Galleria C)

10:40 - 11:00am: Implicit Learning in Artificial Intelligent Systems: The Coming Problem of Real, Cognitive AI
James A. Crowder, Shelli Friess, John N. Carbone
Colorado Engineering Inc., Colorado Springs, Colorado, USA;
School of Counseling, Walden University, Minneapolis, USA;
Department of Electrical and Computer Engineering, Southern Methodist University, Dallas, Texas, USA

11:00 - 11:20am: Case Study: Skymap Data Analysis
Leonidas Deligiannidis, Chen-Hsiang Yu, Mira Yun, and Hongsheng Wu
Department of Computer Science and Networking, Wentworth Institute of Technology, Boston, Massachusetts, USA

Md Kabir Faisal, Ahmad Y. Javaid, Vijay Devabhaktuni
Department of Electrical Engineering and Computer Science, The University of Toledo, Ohio, USA;
Department of Electrical and Computer Engineering, Purdue University Northwest, Hammond, Indiana, USA

11:40 - 12:00pm: Fighting Crime with Artificial Intelligence (AI): Combining AI and Statistical Modeling to Enhance Crime Detection in Digital Evidence
Austin Leehealey
AccessData Corp, Lindon, Utah, USA

12:00 - 12:20pm: Deep Neural Network Representations for Song Audio Matching and Recommendation
Brandon Litwin, Pablo Rivas
Department of Computer Science, School of Computer Science and Mathematics, Marist College, Poughkeepsie, New York, USA

12:20 - 12:40pm: Sentiment Analysis on Twitter Data using Apache Hadoop and Performance Evaluation on Hadoop MapReduce and Apache Spark
Kritika Garg, Devinder Kaur
EEES Department, University of Toledo, Toledo, Ohio, USA

12:40 - 01:20pm: LUNCH (On Your Own)
SESSION 6-ICAI: ARTIFICIAL INTELLIGENCE APPLICATIONS + OPTIMIZATION, DATA MINING, AND RELATED ISSUES

Co-Chair: Dr. Ahmad Y. Javaid* & Dr. Charles Knadler**
* EE & CS, & Founding Director, Paul A. Hotmer Cybersecurity & Teaming Research (CSTAR) Lab, The University of Toledo, Ohio, USA;
** Utah Valley University, Utah, USA

July 30, 2019 (Tuesday); 01:20pm - 03:00pm
(LOCATION: Galleria C)

01:20 - 01:40pm: A Data Mining Approach for Sepsis Validation
Venkata Mayukha Cheekati, Bhargav Pingle, Ahmad Y. Javaid
Department of Electrical Engineering and Computer Science, The University of Toledo, Ohio, USA

01:40 - 02:00pm: Path Finding and Joining for Truck Platoons
Reem Saad Alshiddi, Henry Hexmoor
Department of Computer Science, Southern Illinois University, Carbondale, Illinois, USA

02:00 - 02:20pm: Query-based Learning Method for Query Routing in Unstructured P2P Systems
Abdulrahman A. Alshdadi
Department of Information Systems and Technology, College of Computer Science & Eng., University of Jeddah, Saudi Arabia

02:20 - 02:40pm: Deployment and Hyper-Parameter Optimization of Chatbots
Michael Read, Pablo Rivas-Perea
Department of Computer Science, School of Computer Science and Mathematics, Marist College, New York, USA

02:40 - 03:00pm: Persisting Trust in Untrusted Varying Resilient City Context
Muhammed Akif Agca, Djamel Khadraoui, Sebastien Faye
TOBB ETU, Computer Engineering, Ankara, Turkey;
Luxembourg Institute of Science and Technology, Luxembourg

03:00 - 03:40pm: POSTER DISCUSSION SESSION B-ICAI
July 30, 2019 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

- Judging Emotion from EEGs Using Word2vec
  Seiji Tsuchiya, Misako Imono, Hirokazu Watabe
  Dept of Intelligent Information Engineering & Science, Faculty of Science & Engineering, Doshisha University, Kyo-Tanabe, Kyoto, Japan; Department of Information Systems, School of Informatics, Daido University, Japan

  Hirokazu Watabe, Misako Imono, Seiji Tsuchiya
  Dept of Intelligent Information Engineering & Science, Doshisha University, Kyotanabe, Kyoto, Japan; Dept of Information Systems, Daido University, Japan

- A Compact Distilled Network by Accelerated Ensemble Learning for Mobile Visual Food Recognition
  Heng Zhao, Kim-Hui Yap, Alex C. Kot
  School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore

- Improvement of Cognitive Function Using Analog-based Board Game, 'AltingGo'
  Jeong-Won Kang, Ki Young Lee
  Department of Information & Telecommunications Engineering, Incheon National University, Incheon, Korea

- ...
SESSION 7-ICAI-ACC: ARTIFICIAL INTELLIGENCE & COGNITIVE COMPUTING & MACHINE LEARNING +
UNMANNED AERIAL SYSTEMS & ALGORITHMS
Co-Chairs: Prof. Giti Javidi* & Dr. James Crowder**
   * Information Technology & Cybersecurity, College
     of Business, University of South Florida, USA;
   ** Colorado Engineering, Inc., Colorado, USA
July 30, 2019 (Tuesday); 03:40pm - 06:00pm
(LOCATION: Galleria C)

03:40 - 04:00pm: Finding Time Series Breakpoints with Fully Connected
Neural Networks
Amy Pitts, Pablo Rivas
Department of Mathematics, School of Computer Science and
Mathematics, Marist College, New York, USA; Department of
Computer Science, School of Computer Science & Mathematics,
Marist College, New York, USA

04:00 - 04:20pm: From Cognitive Skills to Automated Cybersecurity Response
Roberto Andrade, Maria Fernanda Cazares, Luis Tello-Oquendo,
Walter Fuertes, Nicolay Samaniego, Freddy Tapia
Escuela Politecnica Nacional, Quito, Ecuador; Universidad
Politecnica Salesiana, Quito, Ecuador; Universidad Nacional
de Chimborazo, Riobamba, Ecuador; Universidad de las
Fuerzas Armadas ESPE, Ecuador

04:20 - 04:40pm: Human Cognition and Artificial Intelligence: The Artificial
Prefrontal Cortex Revisited
James A. Crowder, Shelli Friess
Colorado Engineering Inc., Colorado Springs, Colorado, USA;
School of Counseling, Walden University, Minneapolis, USA

04:40 - 05:00pm: Application of Big Data Analytic in Cybersecurity
Roberto Andrade, Nicole Ontaneda, Andrea Silva,
Luis Tello-Oquendo, Susana Cadena, Dorys Quiroz, and
Walter Fuertes
Escuela Politecnica Nacional, Quito, Ecuador; Universidad
Politecnica Salesiana, Quito, Ecuador; Universidad Nacional
de Chimborazo, Riobamba, Ecuador; Universidad de las
Fuerzas Armadas ESPE, Ecuador

05:00 - 05:20pm: Artificial Intelligence Profiles for Foundational Counselor
Training Sessions
Shelli Friess, James A. Crowder
Colorado Engineering Inc., Colorado Springs, Colorado, USA;
School of Counseling, Walden University, Minneapolis, USA

05:20 - 05:40pm: Vision Based Coastline Detection for Autonomous
Unmanned Aerial Systems
Wei Chen, Dulal Kar, Simon Merheb
California State Polytechnic University, Pomona, California, USA;
Texas A&M University-Corpus Christi, Texas, USA;
Lewis University, Romeoville, Illinois, USA

05:40 - 06:00pm: A Framework for Determination of Ocean Wave Properties
Using Unmanned Aerial Systems
Hailey Chapman, Henry O’Connor, Michael Starek, Dulal Kar
Texas A&M University-Corpus Christi, Texas, USA;
Bunker Hill College, USA
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 8-ICAI: LEARNING METHODOLOGIES, MACHINE LEARNING, COGNITIVE COMPUTING, REASONING, AND APPLICATIONS
Co-Chairs: Prof. Emdad Khan* & Dr. Andrei Chtcheprov**
* Department of CS, Maharishi University (MUM), Iowa
& InternetSpeech, San Jose, California, USA;
** Fannie Mae, USA
July 31, 2019 (Wednesday); 08:20am - 10:40am
(LOCATION: Galleria C)

Mostafa Tahmasebi, Kevin Eaton, Nabil Nassif, Rand Talib
Department of Civil & Architectural Eng. & Construction Management, University of Cincinnati, Ohio, USA;
Department of CS, University of Cincinnati, Ohio, USA

08:40 - 09:00am: Optimizing Cookie Recipes for Ratings Using Machine Learning and Deep Vector-to-Sequence Recurrent Neural Models
Mackenzie O’Brien, Pablo Rivas-Perea
Department of Computer Science, School of Computer Science and Mathematics, Marist College, New York, USA

09:00 - 09:20am: Modeling of Chilled Water VAV Systems using a Machine Learning Approach
Rand Talib, Priyan Rai, Nabil Nassif, Mostafa Tahmasebi
Department of Civil & Architectural Eng. & Construction Management, University of Cincinnati, Ohio, USA;
Department of EECS, University of Cincinnati, Ohio, USA

09:20 - 09:40am: Serious Games and Machine Learning for Detecting Mild Cognitive Impairment
Kyle Leduc-Mcniven, Ryan T. Dion, Mahmood Aljumaili, Robert D. McLeod, Marcia R. Friesen, Kai Gutenschwager
Department of ECE, University of Manitoba, Canada;
Institute of Information Engineering, Ostfalia University of Applied Sciences, Germany

09:40 - 10:00am: Variants of Dynamic Time Warping and their Performance in Human Movement Assessment
Johan Hagelback, Pavlo Liapota, Alisa Lincke, Welf Lowe
DISA, Linnaeus University, Vaxjo/Kalmar, Sweden;
Softwerk AB, Vaxjo, Sweden

10:00 - 10:20am: Anytime Learning: A Step Toward Life-Long AI Machine Learning
James A. Crowder, Shelli Friess, John N. Carbone
Colorado Engineering Inc., Colorado Springs, Colorado, USA;
School of Counseling, Walden University, Minneapolis, USA;
Department of ECE, Southern Methodist University, Texas, USA

10:20 - 10:40am: Societal Benefits and Risks of Artificial Intelligence: A Succinct Survey
Sabrina Bergsten, Pablo Rivas-Perea
Department of CS, School of Computer Science & Mathematics, Marist College, Poughkeepsie, New York, USA
SESSION 9-ICAI-HIMS-BIOENG: ARTIFICIAL INTELLIGENCE, HEALTH INFORMATICS
AND MEDICAL SYSTEMS
Chair: Prof. Taewon Seo
Department of Mechanical and Automotive Engineering,
Andong National University, Korea
July 31, 2019 (Wednesday); 10:40am - 12:20pm
(LOCATION: Galleria C)

10:40 - 11:00am: Using Isochrones to Examine NICU Availability in Rural Alabama
Ben Hallihan, Myles McLeroy, Blake Wright, Travis Atkison
Department of Computer Science, University of Alabama,
Tuscaloosa, Alabama, USA

11:00 - 11:20am: Character Stroke Path Inference in a Rehabilitation Application
Sarah Potter, Benjamin Bishop, Renee Hakim
Computing Sciences Department, University of Scranton, PA, USA

11:20 - 11:40am: Development of a Virtual Assistant
Department of CS, University of Dayton, Ohio, USA;
Department of Computer and Information Technology,
Miami University, Ohio, USA

11:40 - 12:00pm: Mixed Initiation for Cooperative Adaptive Cruise Control
Henry Hexmoor, Hancheng Zhang
Department of Computer Science, Southern Illinois University,
Carbondale, Illinois, USA

12:00 - 12:20pm: Comparison of Hemodynamic Characteristics in the before and
after Implanted Stent Graft into Specific Patient's
Abdominal Aortic Aneurysm
Taewon Seo, Sun-Young Choi
Department of Mechanical and Automotive Engineering,
Andong National University, Andong, Korea;
Department of Radiology, Medical Center of Ewha Womans
University, Seoul, Korea

12:20 - 01:20pm: LUNCH (On Your Own)
SESSION 10-ICAI: DEEP LEARNING, RNN, CNN, DATA SCIENCE & APPLICATIONS + OPTIMIZATION + AI RELATED ISSUES
Co-Chairs: Arka Chakraborty*, Nikita Goyal**, & JunYi Derek He***
   * University of Virginia, Charlottesville, Virginia, USA;
   ** University of Missouri - Kansas City, Missouri, USA;
   ***The Woodlands College Park High School, Texas, USA
July 31, 2019 (Wednesday); 01:20pm - 03:00pm
(LOCATION: Galleria C)

01:20 - 01:40pm: Dog Breed Identification with a Neural Network over Learned Representations from the Xception CNN Architecture
Kaitlyn Mulligan, Pablo Rivas
Department of Mathematics, Marist College, Poughkeepsie, New York, USA; Department of Computer Science, Marist College, Poughkeepsie, New York, USA

01:40 - 02:00pm: Surveillance Mission Planning: Model, Performance Measure, Bi-Objective Analysis, Partial Surveils
Ryan D. Friese, James A. Crowder, Howard Jay Siegel, and John N. Carbone
Pacific Northwest National Laboratory (PNNL), Richland, Washington, USA; Colorado Engineering, Inc., Colorado Springs, Colorado, USA; ECE Department, Colorado State University, Fort Collins, Colorado, USA; CS Department, Southern Methodist University, Dallas, Texas, USA

02:00 - 02:20pm: Optimizing E-Commerce Product Classification Using Transfer Learning
Rashmeet Kaur Khanuja
Computer Science Department, San Jose State University, San Jose, California, USA

02:20 - 02:40pm: Deep Sparse Autoencoders for American Sign Language Recognition using Depth Images
Pablo Rivas, Ezequiel Rivas, Omar Velarde, Samuel Gonzalez
Department of CS, Marist College, New York, USA; Division of Graduate Studies, Nogales Institute of Technology, Sonora, Mexico

02:40 - 03:00pm: FREE SLOT
03:00 - 03:40pm: POSTER DISCUSSION SESSION C-ICAI-BIOENG
July 31, 2019 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

- Surface Electromyography Signals based Recognition of Finger Number Gesture using Convolutional Neural Network
  Jong-Jun Park, Chun-Ki Kwon
  Department of Medical IT Eng., Soonchunhyang University, Korea

- Evolutionary Algorithms for Multimodal Problems: An Analysis of the Literature
  Martinez R., Puche J., Ponte B., Costas J., Pino R., and De la Fuente D.
  Department of Applied Economics, Faculty of Economics and Business, University of Burgos, Burgos, Spain

- Blockchain and Smart Contracts: Uses and Challenges
  Fernandez-Vazquez S., Rosillo R., De la Fuente D., Priore P., Puente J.
  Escuela Politecnica de Ingenieria de Gijon, Campus de Viesques, Spain

- Auctions in the Metal Sector with Metaheuristics
  Gomez A., Fernandez I., Parreno J., Garcia N.
  Escuela Politecnica de Ingenieria de Gijon, Campus de Viesques, Spain

- Some Considerations on the Use of AI Techniques for Prediction and Forecasting in Stock Market Time Series
  Antonio Lorenzo, Jose A. Olivas
  Department of Business Intelligence. Castilla La Mancha Government, Toledo, Spain

- EagleBot: A Chatbot Based Multi Tire Question Answering System Using Deep Learning
  Muhammad Rana, Mehdi Allahyari
  Department of Computer Science, Georgia Southern University, Georgia, USA

- ...
SESSION 11-ICAI: MACHINE LEARNING AND GENERAL AI TECHNIQUES
Co-Chairs: Prof. Emdad Khan* & Prof. Vivian Sultan**
  * Department of CS, Maharishi University (MUM), Iowa & InternetSpeech, San Jose, California, USA;
  ** Information Systems & Business Management, California State University, Los Angeles, USA
July 31, 2019 (Wednesday); 03:40pm - 06:00pm
(LOCATION: Galleria C)

03:40 - 04:00pm:  Unsupervised Clustering for Sharding Key Formulation and the Effects of Aggregation Computations
Tad Kellogg, Yanzhen Qu
School of Computer Science, Colorado Technical University, Colorado Springs, Colorado, USA

04:00 - 04:20pm:  Lifelong Machine Learning with Logic, Semantics and Natural Language Processing
Emdad Khan
Department of CS, Maharishi University (MUM), Iowa, USA; InternetSpeech, San Jose, California, USA

04:20 - 04:40pm:  Two Perspectives on Playing Games: Reinforcement Learning vs Game Theory
Maximilian Moll, Leonhard Kunczik
Operations Research, Universitat der Bundeswehr Munchen, Munich, Bavaria, Germany

04:40 - 05:00pm:  Using Machine Learning to Play the Game Super Mario Kart
Jinhuan Lei, Song Chen, Mao Zheng
Department of CS, University of Wisconsin-LaCrosse, USA; Department of Mathematics and Statistics, University of Wisconsin-LaCrosse, LaCrosse, Wisconsin, USA

05:00 - 05:20pm:  Multi-level Defects Classification of Partial Discharge Activity in Electric Power Cables using Machine Learning
Qasim Khan, Omar Abu-Rub, Shady S. Refaat
Department of EE, Texas A&M University at Qatar, Qatar; Department of EE, Texas A&M University, College Station, Texas, USA

05:20 - 05:40pm:  A Study on an Apartment Price Prediction Model using Machine Learning: An Example from Busan Metropolitan Area
Sungho Park, Kangbae Lee, Doo-Hwan Kim, Sung Sang Ha, Byounghwon Park, Hyeonsoo Kim
Management Information Systems, Dong-A University, Busan, South Korea

05:40 - 06:00pm:  FREE SLOT
SESSION 12-ICAI:  ML + DEEP LEARNING, RNN, CNN, DATA SCIENCE & APPLICATIONS
Chair: Prof. Dr. Stefan Pickl
Universitat Bundeswehr Munchen, Germany
August 1, 2019 (Thursday); 08:20am - 10:20am
(LOCATION: Galleria C)

08:20 - 08:40am:  Segmented Brain Waves Signals Cognitive Load Assessment: A Deep Learning Approach
Abdul Qayyum, Moona Mazher, M. K. A. Ahamed Khan, M. Suresh, and K. Sudhagar
Centre for Intelligent Signal and Imaging Research (CISIR), Universiti Teknologi PETRONAS, Malaysia; UCSI University, Malaysia; Murugappa Polytechnic College, India

08:40 - 09:00am:  A Study of Machine Learning Models for Predicting Loan Status from Ugandan Loan Applications
Peter Nabende, Samuel Senfuma
Department of Information Systems, School of Computing and Informatics Technology, Makerere University, Kampala, Uganda

09:00 - 09:20am:  A Convolution Recurrent Autoencoder for Spatio-temporal Missing Data Imputation
Reza Asadi, Amelia Regan
Department of Computer Science, University of California Irvine, California, USA

09:20 - 09:40am:  Big Data Analytics-based Urban Traffic Prediction using Deep Learning in ITS
Khac-Hoai Nam Bui, Hongsuk Yi, Heejin Jung, Jinseok Seo
Center for Supercomputing Applications, Korea Institute of Science and Technology Information, Daejeon, Korea

09:40 - 10:00am:  FREE SLOT

10:00 - 10:20am:  FREE SLOT

10:20 - 10:40am:  BREAK
SESSION 13-ICAI:  ---CONCURRENT SESSION WITH SESSION 16-BIOCOMP

NATURAL LANGUAGE PROCESSING & APPLICATIONS - I
+ Intelligent Linguistic Technologies; ILINTEC
Chair: Dr. Elena B. Kozerenko; Institute of Informatics Problems, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow Pedagogical State University, Moscow, Russia
August 1, 2019 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria C)

10:40 - 11:00am: ILIOS - Intelligent Linguistic Services for Distributed Natural Language Processing
Elena B. Kozerenko
Institute of Informatics Problems, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow, Russia

11:00 - 11:20am: Ontology Mining Based on Intelligent Statistical Verbalizer
Elena B. Kozerenko, Svetlana A. Pozdeeva, Nikolai V. Somin
Institute of Informatics Problems, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow, Russia; Institute of Informatics Problems, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow State University Research Computer Center, Moscow, Russia

11:20 - 11:40am: String Vector based K Nearest Neighbor for News Article Summarization
Taeho Jo
School of Game, Hongik University, Sejong, South Korea

11:40 - 12:00pm: Merging Example-Based and Generative Models for Subject-Domain Machine Translation Systems
Elena B. Kozerenko, Alexander A. Khoroshilov, Alexei A. Khoroshilov, and Yuri Nikitin
Institute of Informatics Problems, Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow, Russia

12:00 - 12:20pm: Transferable High-Level Representations of BERT for Cross-Domain Sentiment Classification
Batsergelen Myagmar, Jie Li, Shigetomo Kimura
Department of CS, University of Tsukuba, Japan; Department of CSE, Shanghai Jiao Tong University, China

12:20 - 01:20pm: LUNCH (On Your Own)
SESSION 14-ICAI:  --------> CONCURRENT SESSION WITH SESSION 17-HIMS
TEXT MINING, OPINION MINING, SWARM ALGORITHMS, GENETIC
ALGORITHMS, & DATA SCIENCE
Chair: Dr. Hong Liu
Assistant Professor of Computer Science,
Indiana University, Kokomo, Indiana, USA
August 1, 2019 (Thursday); 01:20pm - 03:00pm
(LOCATION: Galleria C)

01:20 - 01:40pm:  Introduction of String Vectors to AHC Algorithm for
Clustering News Articles
Taeho Jo
School of Game, Hongik University, Sejong, South Korea

01:40 - 02:00pm:  Emotional Awareness based Classification Model for Twitter
Sentiment Analysis using a Deep Neural Network
Ahmed Sulaiman M. Alharbi, Elise De Doncker
Department of Computer Science, Western Michigan University,
Kalamazoo, Michigan, USA; Department of CS, Taibah
University, Medina, Kingdom of Saudi Arabia

02:00 - 02:20pm:  Evolving Pong Paddles
Matthew Kopelman, Kyle Glaws, Holger Mauch
Eckerd College, St. Petersburg, Florida, USA

02:20 - 02:40pm:  Short-Term Electricity Market Price Forecasting Based on
De-Noised Wavelets and NARX Neural Network - Data Analytics
Approach
R. Villegas, P. Nava, A. Vazquez
Department of ECE, University of Texas at El Paso, USA

02:40 - 03:00pm:  FREE SLOT

03:00 - 03:40pm:  POSTER DISCUSSION SESSION D-ICAI
August 1, 2019 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

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SESSION 15-ICAI:  --------> CONCURRENT SESSION WITH SESSION 18-ICAI
DEEP NEURAL NETWORKS, ANOMALY DETECTION, BAYESIAN
METHODS, AND APPLICATIONS
Chair: Bassam Zahran
   Towson University, Maryland, USA
August 1, 2019 (Thursday); 03:40pm - 05:40pm
(LOCATION: Galleria C)

03:40 - 04:00pm:  Deep Neural Networks for Online Game Bot Detection
Woei-Jiunn Tsaur, Chinyang Henry Tseng
Computer Center, National Taipei University, Taiwan;
Department of CS & Information Engineering,
National Taipei University, Taiwan

04:00 - 04:20pm:  Deep Autoencoder Neural Networks for Detecting Lateral
Movement in Computer Networks
Spencer Aubrey, Auston Deville, William Haight, Todd Gary,
Ronald Holt, Qingguo Wang
College of Computing and Technology, Lipscomb University,
Nashville, Tennessee, USA

04:20 - 04:40pm:  Scoring Method for Detecting Potential Insider Threat
based on Suspicious User Behavior using Endpoint Logs
Shota Fujii, Ichiro Kurima, Yoshiaki Isobe
Security Research Dept, Hitachi, Ltd., Kanagawa, Japan

04:40 - 05:00pm:  Method of Adding Image-Concepts and Attributes for
Concept-Base
Misako Imono, Seiji Tsuchiya, Hirokazu Watabe
Department of Info. Systems, Daido University, Japan;
Department of Intelligent Information Engineering and
Science, Doshisha University, Japan

05:00 - 05:20pm:  A Bayesian Model for Emerging Entrepreneurs to Adapt to
Open Data for Growth
Barnabas Ndlovu Gatsheni
School of Consumer Intelligence and Information Systems,
University of Johannesburg, South Africa

05:20 - 05:40pm:  A Bayesian Model for Combating Poaching of Wild Life in
the Kruger National Park
Barnabas N. Gatsheni
Department of Applied Information Systems, University of
Johannesburg, South Africa

05:40 - 06:00pm:  FREE SLOT
SESSION 16-BIOCOMP: --------- CONCURRENT SESSION WITH SESSION 13-ICAI
COMPUTATIONAL BIOLOGY AND NOVEL ALGORITHMS
Chair: Dr. D. Fabian Garcia-Nocetti
Institute for Research in Applied Mathematics and Systems, (IIMAS), National Autonomous University of Mexico (UNAM), Mexico
August 1, 2019 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria A)

10:40 - 11:00am: Determination of Biomarkers for Diagnosis of Lung Cancer Using Cytoscape-based GO and Pathway Analysis
Mona Maharjan, Raihanul Bari Tanvir, Kamal Chowdhury, and Ananda Mohan Mondal
School of Computing and Information Sciences, Florida International University, Miami, Florida, USA;
School of Natural Sciences and Mathematics, Claflin University, Orangeburg, South Carolina, USA

11:00 - 11:20am: Evaluation of Feature Correlation for the Prediction of Sepsis
Neftali Watkinson, Kevin Chow, Victor C. Joe, Alexandru Nicolau, and Alexander V. Veidenbaum
Department of CS, University of California, Irvine, USA;
UC Irvine Medical Center, University of California, Irvine, USA

11:20 - 11:40am: Method for the Assessment of Cerebral and Cardiovascular Surgeries using a Doppler Ultrasound Blood Flow Measurement System
E. Rubio-Acosta, F. Garcia-Nocetti, P. Acevedo-Contla, M. Fuentes-Cruz, J. A. Contreras-Arvizu
Instituto de Investigaciones en Matematicas Aplicadas y en Sistemas, Universidad Nacional Autonoma de Mexico

11:40 - 12:00pm: FREE SLOT

12:00 - 12:20pm: FREE SLOT

12:20 - 01:00pm: LUNCH (On Your Own)
SESSION 17-HIMS:  --------> CONCURRENT SESSION WITH SESSION 14-ICAI
HEALTH INFORMATICS & APPLICATIONS: DATA SCIENCE, PREDICTIVE ANALYTICS, AND RELATED SYSTEMS
Co-Chairs: Prof. Yijun Zhao* &
          Dr. Usharani Hareesh Govindarajan (Dr. Hareesh Pillai)**
          * Fordham University, New York, USA;
          ** National Tsing Hua University, Taiwan
August 1, 2019 (Thursday); 01:00pm - 03:00pm
(LOCATION: Galleria A)

01:00 - 01:20pm: Software Architecture Integrating Blockchain and Artificial Intelligence for Medical Data Aggregation
Jingpeng Tang, Bradley Van Fleet, Carter Davis, Jason Nelson, Joe Jacobson
Department of Computer Science, Utah Valley University, USA

01:20 - 01:40pm: Towards a Unified Blockchain-Based Dental Record Ecosystem for Disaster Victims Identification
S. AlQahtani, S. AlSalamah, A. Alimam, A. AlAbdullatif, M. AlAmri, M. AlThaqeb, S. Alqahtani, K. Aschheim
College of Dentistry, King Saud University, Saudi Arabia;
College of CIS, King Saud University, Saudi Arabia;
Global Co-Creation Laboratory, MIT Institute for Medical Engineering and Science (IMES), Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA;
College of Dentistry, New York University, New York, USA

01:40 - 02:00pm: Predicting 30-Day Hospital Readmissions for Patients with Diabetes
Y. Zhao, W. Wu, Y. Jin, S. Gu, H. Wu, J. Wang, X. Jiang, and X. Hong
CIS Department, Fordham University, Bronx, New York, USA;
Department of Pharmaceutical Outcomes and Policy, University of Florida, Gainesville, Florida, USA

02:00 - 02:20pm: Ontology-based Model for Interoperability between openEHR and HL7 Health Applications
Matheus Henrique Wichman, Cristiano Andre da Costa, Rodrigo da Rosa Righi, Adenauer Correa Yamin
Software Innovation Laboratory - SOFTWARELAB, Applied Computing Graduate Program Universidade do Vale do Rio dos Sinos - UNISINOS, Sao Leopoldo, Brazil; CS Graduate Program, Universidade Federal de Pelotas - UFPEL Pelotas, Brazil

02:20 - 02:40pm: Improving Elderly User Experience on the Use of New Technologies for Independent Living
Luiza Spiru, Cosmina Paul, Magdalena Velciu, Andrei Voicu, Mircea Marzan
Ana Aslan International Foundation, Romania

02:40 - 03:00pm: FREE SLOT
SESSION 18-ICAI: --------> CONCURRENT SESSION WITH SESSION 15-ICAI
DEEP LEARNING, RECURRENT NEURAL NETWORK, CONVOLUTIONAL
NEURAL NETWORKS, DATA SCIENCE AND APPLICATIONS
Co-Chairs: Dr. Frank Coyle* & Dr. Noha Hazzazi** & Prof. Hang Dinh***
* Department of Computer Science,
  Southern Methodist University, Texas, USA;
** Department of Electrical Engineering &
  Computer Science, Howard University, USA;
***Indiana University South Bend, Indiana, USA
August 1, 2019 (Thursday); 03:40pm - 05:20pm
(LOCATION: Galleria A)

03:40 - 04:00pm:  Adaptive Object Re-identification based on RoI aware Sift-CNN Hybrid Feature Clustering
Jae-Ho Jeong, Seong-Hwan Kim, Minsu Jeon, Chan-Hyun Youn
School of Electrical Engineering, KAIST, Daejeon, Korea

04:00 - 04:20pm:  Classification on Roadside Vehicle Status using Mask R-CNN based RoI Extraction and Viewpoint Matching in Crowdsourcing Environment
Kyungchae Lee, Minsu Jeon, Seong-Hwan Kim, Chan-Hyun Youn
School of Electrical Engineering, KAIST, Daejeon, Korea

04:20 - 04:40pm:  Hierarchical Power Control in Heterogeneous HPC Clusters for Deep Learning Processing
Dong-Ki Kang, Chan-Hyun Youn
School of Electrical Engineering, KAIST, Daejeon, Korea

04:40 - 05:00pm:  Evaluating Confidence in Deep Learning Decisions Using Stochastic Methods
Ryan A. Elwell
US Army C5ISR Center, Aberdeen Proving Ground, Maryland, USA

05:00 - 05:20pm:  Optimal Allocation of Electric Vehicle Parking Lots for Improving the Efficiency of Distribution System
H. A. Shayanfar, H. Shayeghi, L. Bagherzadeh
College of Technical & Engineering, South Tehran Branch,
Islamic Azad University, Tehran, Iran; EE Department,
University of Mohaghegh Ardabili, Ardabil, Iran

05:20 - 05:40pm:  FREE SLOT

05:40 - 06:00pm:  FREE SLOT
PDPTA'19 + CSC'19 + IPCV'19 + MSV'19 + GCC'19

CONFERENCE SCHEDULES

The Proceedings are available at
https://americancse.org/events/csce2019/proceedings

These conferences have significant topical overlap. The Steering Committee, in consultation with the program committees of these conferences, decided to merge the presentation schedules of these conferences into one comprehensive program to facilitate increased opportunities for cross-fertilization across these research topics. Therefore, the conference attendees, speakers, and participants should be mindful of the fact that there are a number of Concurrent sessions in this comprehensive schedule.

PDPTA'19: The 25th International Conference on Parallel and Distributed Processing Techniques and Applications

CSC'19: The 17th International Conference on Scientific Computing

IPCV'19: The 23rd International Conference on Image Processing, Computer Vision, & Pattern Recognition

MSV'19: The 16th International Conference on Modeling, Simulation and Visualization Methods

GCC'19: The 15th International Conference on Grid, Cloud, and Cluster Computing

In addition, there are a number of other sessions (not listed as part PDPTA, CSC, IPCV, MSV, GCC) that are of potential interest (sessions belonging to other joint conferences). Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in BIOCOMP (Computational Biology), ESCS (Embedded Systems, Cyber-physical Systems), FECS (Education: CS & CE), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICDATA (Data Science), ICOMP (Internet Computing & IoT), ICWN (Wireless Networks), IKE (Knowledge Engineering), SAM (Security), and SERP (Software Eng) conferences discuss topics that are within the scope of PDPTA, CSC, IPCV, MSV, GCC; these have been scheduled so that many attendees can also participate in them.

Each conference is divided into a number of topical sessions. These sessions are not necessarily scheduled in the same room/location. Therefore, conference attendees are to check the location of the tracks they wish to attend; The conference room numbers (Locations) appear in this document.

03:00p - 07:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 28
07:00a - 05:00p:  REGISTRATION  
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:30 - 09:00am:  CONGRESS WELCOME REMARKS - July 29, Monday:  
Prof. Hamid R. Arabnia (Chair, Steering Committee & Coordinator), Department of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC).  
(LOCATION: Galleria B-C)

09:00 - 10:00am:  KEYNOTE LECTURE - July 29, Monday:  
INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING  
Prof. Diego Galar  
Professor of Lulea University of Technology, Sweden; Head of Maintenance & Reliability, Tecnalia, Spain; Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe.  
(LOCATION: Galleria B-C)

10:00 - 10:20am:  BREAK

SESSION 1-CSC:  COMPUTATIONAL SCIENCE, OPTIMIZATION, PERFORMANCE ANALYSIS, ALGORITHMS AND APPLICATIONS  
Co-Chairs: Prof. John R. Talburt* & Dr. William Dai**  
* Acxiom Chair of Information Quality, University of Arkansas at Little Rock, Arkansas, USA;  
** Project leader, Los Alamos National Laboratory, USA  
July 29, 2019 (Monday); 10:20am - 11:20am  
(LOCATION: Galleria E)

10:20 - 10:40am:  Optimizing Inverted Index Blocking for the Matrix Comparator in Linking Unstandardized References  
Awaad Alsarkhi, John R. Talburt  
Department of Information Science, The University of Arkansas at Little Rock, Arkansas, USA

10:40 - 11:00am:  Log-hypercube's Properties and Routing Algorithm  
Ye-seol Jung, Hyeong-Ok Lee  
Department of Computer Education, Sunchon National University, Chonnam, Republic of Korea

11:00 - 11:20am:  On Operator-splitting Approach for Plasma 3-T Radiation Diffusion in Two and Three Dimensions  
William Dai, Anthony J. Scannapieco  
Los Alamos National Laboratory, USA
SESSION 2-PDPTA: INTERNATIONAL WORKSHOP ON MATHEMATICAL MODELING AND PROBLEM SOLVING - MPS
Co-Chairs: Prof. Hayaru Shouno; University of Electro-Communications, Japan; and Prof. Kazuki Joe; Nara Women's University, Japan
July 29, 2019 (Monday); 11:20am - 03:00pm
(LOCATION: Galleria E)

11:20 - 11:40am: Fast Bayesian Restoration of Poisson Corrupted Images with INLA
Takahiro Kawashima, Hayaru Shouno
University of Electro-Communications, Japan

11:40a - 12:00p: Joint Replenishment Policy in Multi-Product Inventory System Using Branching Deep Q-Network with Reward Allocation
Hiroshi Suetsugu, Yoshiaki Narusue, Hiroyuki Morikawa
University of Tokyo, Japan

12:00 - 12:20pm: Molecular Activity Prediction Using Graph Convolutional Deep Neural Network Considering Distance on a Molecular Graph
Masahito Ohue, Ryota Ii, Keisuke Yanagisawa, Yutaka Akiyama
Tokyo Institute of Technology, Japan

12:20 - 01:20pm: LUNCH (On Your Own)

01:20 - 01:40pm: Acceleration of Machine Learning-based Sequence Alignment Generation
Masato Narui, Shuichiro Makigaki, Takashi Ishida
Tokyo Institute of Technology, Japan

01:40 - 02:00pm: Structure of Neural Network for Automatically Generating Fonts of Early-Modern Japanese Printed Books
Yuki Takemoto, Yu Ishikawa, Masami Takata, Kazuki Joe
Nara Women's University, Japan

02:00 - 02:20pm: Layout Analysis using Semantic Segmentation for Imperial Meeting Minute
Sayaka Iida, Yuki Takemoto, Yu Ishikawa, Masami Takata, and Kazuki Joe
Nara Women's University, Japan

02:20 - 02:40pm: Applying CNNs to Early-Modern Printed Japanese Character Recognition
Suzuka Yasunami, Yuki Takemoto, Yu Ishikawa, Masami Takata, and Kazuki Joe
Nara Women's University, Japan

02:40 - 03:00pm: A Discrete Three-wave System of Kahan-Hirota-Kimura Type and the QRT Mapping
Yuko Takae, Masami Takata, Kinji Kimura, and Yoshimasa Nakamura
Nara Women's University, Japan
03:00 - 03:40pm: POSTER DISCUSSION SESSION A-IPCV-CSC-GCC

July 29, 2019 (Monday)

(LOCATION: Lotus Ballrooms 1-2)

- Visible and NIR Image Blending for Night Vision
  Tae-Young Jung, Dong-Min Son, Sung-Hak Lee
  School of Electronics Engineering, Kyungpook National University, Daegu, Korea

- Arm Control of a Tele-existence Robot with a Correction in the Influence of a Vision System
  Shunya Suzuki, Yuki Matsui, Yuki Mori, Hideo Furuhashi
  Department of Electrical and Electronics Engineering, Aichi Institute of Technology, Toyota, Japan

SESSION 3-PDPTA: Continued ... INTERNATIONAL WORKSHOP ON MATHEMATICAL MODELING AND PROBLEM SOLVING - MPS

Co-Chairs: Prof. Hayaru Shouno; University of Electro-Communications, Japan; and Prof. Kazuki Joe; Nara Women's University, Japan

July 29, 2019 (Monday); 03:00pm - 06:00pm

(LOCATION: Galleria E)

03:40 - 04:00pm: Improvement of the Thick-Restart Lanczos Method in Single Precision Floating Point Arithmetic using Givens Rotations
  Masana Aoki, Masami Takata, Kinji Kimura, and Yoshimasa Nakamura
  Nara Women's University, Japan

04:00 - 04:20pm: On an Implementation of Two-Sided Jacobi Method
  Sho Araki, Masami Takata, Kinji Kimura, and Yoshimasa Nakamura
  Kyoto University, Japan

04:20 - 04:40pm: Shape Recognition Technique for High-Accuracy Mid-surface Mesh Generation
  Megumi Okumoto, Sumadi Jien, Junko Niiharu, Kiyotaka Ishikawa, and Hirokazu Nishiura
  Integral Technology Co., Ltd., Japan

04:40 - 05:00pm: Attempt of Evoked EEG Extraction using Deep Clustering
  Yu Ishikawa
  Shiga University, Japan

05:00 - 05:20pm: A Study on the Effects of Background in Oddball Tasks for a User's Motivation and Event-Related Potential
  Tadashi Koike, Tomohiro Yoshikawa, Takeshi Furuhashi
  Nagoya University, Japan

05:20 - 05:40pm: A Method to Acquire Multiple Satisfied Solutions
  Tomohiro Yoshikawa, Kouki Maruyama
  Nagoya University, Japan

05:40 - 06:00pm: Performance Evaluation of MEGADOCK Protein-Protein Interaction Prediction System Implemented with Distributed Containers on a Cloud Computing Environment
  Kento Aoyama, Yuki Yamamoto, Masahito Ohue, Yutaka Akiyama
  Tokyo Institute of Technology, Japan

07:30 - 10:30pm: CONFERENCE RECEPTION DINNER / SOCIAL

July 29 - Monday; 07:30pm

(LOCATION: Egyptian Ballroom)
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 4-CSC: SCIENTIFIC COMPUTING
Co-Chairs: Prof. Mitchell L. Neilsen* & Prof. Saeed Dubas**
* Professor & Graduate Program Director, Department of Computer Science, Kansas State University, Manhattan, Kansas, USA;
** University of Pittsburgh at Titusville, Pittsburgh, USA
July 30, 2019 (Tuesday); 08:20am - 10:40am
(LOCATION: Galleria E)

08:20 - 08:40am: Modeling, Simulation and Verification of a New Swaging Process using DEFORM
Dong Jae Lim, Won Jee Chung, Sang Suk Sul
School of Mechatronics, Changwon National University, Changwon, Gyeongsangnam-do, South Korea

08:40 - 09:00am: An Effective Data Deduplication Method by Using Similar Image Files Clustering
Itaru Koike, Kano Suzuki, Chihiro Shibata, and Toshiyuki Kinoshita
School of Computer Science, Tokyo University of Technology, Hachioji, Tokyo, Japan

09:00 - 09:20am: Design and Implementation of Disaster Information Announcing Emulator Based on UHD Broadcasting
Sang-Yun Lee, Kyung Sub Cho, Byungjun Bae
Smart Media Research Group, Broadcasting @ Media Research Laboratory, ETRI, Daejeon, Korea;
Media Transmission Research Group, Broadcasting @ Media Research Laboratory, ETRI, Daejeon, Korea

09:20 - 09:40am: Augmented Reality for High-throughput Phenotyping
Shanshan Wu, Mitchell L. Neilsen
Department of Computer Science, Kansas State University, Manhattan, Kansas, USA

09:40 - 10:00am: Development of a Rapid First-Order Differential Equation Solver for Stiff Systems
Lisa M. Kuhn, Steele Russell, Matthew Boudreaux, Jessica Gaboury, and Brandon Maulding
Department of Mathematics, Southeastern Louisiana University, Hammond, Louisiana, USA; Department of Computer Science, Southeastern Louisiana University, Hammond, Louisiana, USA

10:00 - 10:20am: Efficient High Order Schemes for the Steady State Navier-Stokes Equations
Saeed Dubas, Paul Bouthellier
Department of Engineering and Mathematics, University of Pittsburgh at Titusville, Pittsburgh, USA

10:20 - 10:40am: Optimization Algorithm Parameter Correlation with Objective Function Features
Stephanie Loewen, Sara Boyle, Jeremy Mange
Analytical Development & Data Science Team, US Army - CCDC-GVSC, Warren, Michigan, USA
SESSION 5-PDPTA: PARALLEL & DISTRIBUTED COMPUTING + INTERCONNECTION NETWORKS + SOFTWARE SYSTEMS
Co-Chairs: Dr. William Dai* & Prof. Mark C. Lewis**
  * Project leader, Los Alamos National Laboratory, USA;
  ** Department of Computer Science, Trinity University,
    San Antonio, Texas, USA
July 30, 2019 (Tuesday); 10:40am - 12:40pm
(LOCATION: Galleria E)

10:40 - 11:00am: On the Construction of Optimal Node-Disjoint Paths in Folded Hypercubes of Even Dimensions
Cheng-Nan Lai
Department of Business Computing, National Kaohsiung University of Science & Technology, Kaohsiung, Taiwan

11:00 - 11:20am: Thread and Process Efficiency in Python
Roger Eggen, Maurice Eggen
School of Computer and Information Sciences, University of North Florida, Jacksonville, Florida, USA;
Department of Computer Science, Trinity University, San Antonio, Texas, USA

11:20 - 11:40am: Using Apache Spark for Distributed Computation on a Network of Workstations
Jordan Koeller, Mark Lewis, David Pooley
Trinity University, San Antonio, Texas, USA

11:40 - 12:00pm: A Dynamic Adaptation Strategy for Energy-Efficient Keyframe-Based Visual SLAM
Abdullah Khalufa, Graham Riley, Mikel Lujan
School of Computer Science, The University of Manchester, Manchester, United Kingdom, UK

12:00 - 12:20pm: On the Distance and Spatial Complexity of Complete Visibility Algorithms for Oblivious Mobile Robots
Rory Hector, Ramachandran Vaidyanathan
Division of Electrical and Computer Engineering, Louisiana State University, Louisiana, USA

12:20 - 12:40pm: Enhancing Scheduling Robustness with Task Completion Feedback and Resource Requirement Biasing
Nicolas Grounds, John K. Antonio
School of Computer Science, University of Oklahoma, Norman, Oklahoma, USA

01:00 - 01:40pm: KEYNOTE LECTURE:
Engineering: Modeling & Simulation Solutions
Dr. Douglas D. Hodson
Department of Electrical and Computer Engineering, Air Force Institute of Technology, USA
(LOCATION: Galleria E)
SESSION 6-MSV: MODELING, SIMULATION AND VISUALIZATION METHODS
Chair: Prof. Saeed Dubas
University of Pittsburgh at Titusville, Pittsburgh, USA
July 30, 2019 (Tuesday); 01:40pm - 03:00pm
(LOCATION: Galleria E)

01:40 - 02:00pm: Functional Imaging of the Computation Process of Universal Register Machine
Shigeru Ninagawa
Faculty of Engineering, Kanazawa Institute of Technology, Ishikawa, Japan

02:00 - 02:20pm: Parametric 3D Objects Modeling and Animation with Computable Document Format
Weihu Hong, Junfeng Qu
Department of Mathematics, Clayton State University, Morrow, Georgia, USA; Department of Computer Science & Info Tech, Clayton State University, Morrow, Georgia, USA

02:20 - 02:40pm: Modeling Cyberattacks with Extended Petri Nets: Research Program Overview and Status Report
Computer Science, University of Alabama in Huntsville, Alabama, USA; Computer Engineering, University of Alabama in Huntsville, Alabama, USA; Computing and Technology, Lipscomb University, Nashville, Tennessee, USA; CS, Athens State University, Athens, Alabama, USA

02:40 - 03:00pm: Synthesizing Social Networks with Iterated Prisoners' Dilemma
Daniel A. O'Neil, Mikel D. Petty
University of Alabama in Huntsville, Alabama, USA

03:00 - 03:20pm: POSTER DISCUSSION SESSION B-IPCV-CSC-GCC
July 30, 2019 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

- Modified Bi-Cubic and Bi-Quintic B-Spline Basis Functions for Simulating a Thin Plate Structure
  Kaleb Champagne, Christian Ennis, Lisa M. Kuhn
  Department of Computer Science, Southeastern Louisiana University, Hammond, Louisiana, USA; Department of Mathematics, Southeastern Louisiana University, Hammond, Louisiana, USA

- The Design and Implementation of Astronomical Data Analysis System on HPC Cloud
  Jaegyoon Hahm, Ju-Won Park, Hyeyoung Cho, Min-Su Shin, and Chang Hee Ree
  Korea Institute of Science and Technology Information, Republic of Korea; Korea Astronomy and Space Science Institute, Republic of Korea

- Use of Levenberg-Marquardt Method to Train Cellular Simultaneous Recurrent Network to Perform Maze Traversal Task
  Steele A. Russell II
  Department of Computer Science, Southeastern Louisiana University, Hammond, Louisiana, USA; Center for Advanced Computer Studies, University of Louisiana at Lafayette, Louisiana, USA

- ...
SESSION 7-IPCV: IMAGE PROCESSING, COMPUTER VISION, & PATTERN RECOGNITION
Co-Chairs: Dr. Bogdan Armaselu* & Soheyla Amirian**
* University of Texas at Dallas, Dallas, Texas, USA;
** University of Georgia, Athens, Georgia, USA
July 30, 2019 (Tuesday); 03:20pm - 06:20pm
LOCATION: Galleria E

03:20 - 03:40pm: Sports Skill Analysis for Motion Data Focused on Frequency
Toshiyuki Maeda, Chikako Mitsuyasu, Akiyoshi Wakatani
Department of Management Information, Hannan University, Japan; Faculty of Intelligence and Informatics, Konan University, Japan

03:40 - 04:00pm: A Short Review on Image Caption Generation with Deep Learning
Soheyla Amirian, Khaled Rasheed, Thiab R. Taha, and Hamid R. Arabnia
Department of Computer Science, The University of Georgia, Athens, Georgia, USA

04:00 - 04:20pm: Unsupervised Object Discovery and Inference with Deep Latent Similarity Model
Shuanglu Dai, Hong Man
Department of Electrical and Computer Engineering, Stevens Institute of Technology, New Jersey, USA

04:20 - 04:40pm: Designing a Robust Image Steganography Algorithm Using the Discrete Cosine Transform
Jemilade Longe, Gahangir Hossain, Ayush Goyal
Texas A & M University-Kingsville, Texas, USA

04:40 - 05:00pm: Robust Digital Watermarking and Recovery via Deep Residual Learning
Alwyn Aswin, Yanzhen Qu
School of Computer Science, Colorado Technical University, Colorado Springs, Colorado, USA

05:00 - 05:20pm: Vehicle Crashes: Early Detection Through Image Recognition
Laura Malis, Abigail Payne, Myles McLeroy, Travis Atkison
Department of Computer Science, University of Alabama, Tuscaloosa, Alabama, USA

05:20 - 05:40pm: Improved Stereo Matching based on Convolutional Neural Network
Yingnan Geng, Mi Lu, Baixiu Ding, Wenrui Zhang, Yindong Hua
Electrical and Information Engineering, Changchun Institute of Technology, Changchun, P. R. China; Electrical and Computer Engineering, Texas A&M University, College Station, Texas, USA; Electrical Engineering and Computer, Jilin Jianzhu University, Changchun, P. R. China

05:40 - 06:00pm: SRGAN: Training Dataset Matters
Nao Takano, Gita Alaghband
Computer Science and Engineering, University of Colorado, Denver, Colorado, USA

06:00 - 06:20pm: MetaNet: A Boosting-Inspired Deep Learning Image Classification Ensemble Technique
Derek He, Ian Pedroza
The Woodlands College Park, Texas, USA
08:00 - 05:00p:  REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 8-CSC:  SCIENTIFIC COMPUTING AND ENGINEERING
Co-Chairs: Sara Boyle & Stephanie Loewen
TARDEC, USA; & US Army CCDC Ground Vehicle Systems Center, USA
July 31, 2019 (Wednesday); 08:20am - 09:00am
(LOCATION: Galleria E)

08:20 - 08:40am:  Emerging Computing Techniques
Matthew N. O. Sadiku, Adedamola A. Omotoso, Sarhan M. Musa
Prairie View A&M University, Prairie View, Texas, USA

08:40 - 09:00am:  Effect of Electromagnetic Interference on Smart Grid
Adedamola A. Omotoso, Matthew N. O. Sadiku, Sarhan M. Musa
Prairie View A&M University, Prairie View, Texas, USA

SESSION 9-CSC:  MILITARY AND DEFENSE MODELING AND SIMULATION
Co-Chairs: Dr. Douglas Hodson & Dr. Michael Grimaila
US Air Force Institute of Technology, USA
July 31, 2019 (Wednesday); 09:00am - 10:20am
(LOCATION: Galleria E)

09:00 - 09:20am:  An Introduction to Declarative Programming in CLIPS and PROLOG
Jack L. Watkin, Adam C. Volk, Saverio Perugini
Department of Computer Science, University of Dayton, Dayton, Ohio, USA

09:20 - 09:40am:  Modeling Quantum Teleportation with Julia
Larry C. Llewellyn, Michael R. Grimaila, and Douglas D. Hodson
Systems Engineering and Management Department, US Air Force Institute of Technology, USA

09:40 - 10:00am:  Effect of Modeling Simultaneous Events on Simulation Results
John M. Carboni, Douglas D. Hodson, John O. Miller, and Jeremy R. Millar
Computer Science and Engineering Department, US Air Force Institute of Technology, USA

10:00 - 10:20am:  ECS Architecture for Modern Military Simulators
Joseph A. Vagedes, Douglas D. Hodson, Scott L. Nykl, and Jeremy R. Millar
Computer Science and Engineering Department, US Air Force Institute of Technology, USA

10:20 - 10:40am:  BREAK
10:40 - 11:40am: KEYNOTE/TUTORIAL LECTURE:
Big Data Analytics with Spark
Prof. Mark C. Lewis
Trinity University, San Antonio, Texas, USA
(LOCATION: Galleria E)

SESSION 10-PDPTA-GCC: HETEROGENEOUS DISTRIBUTED COMPUTING + MAPREDUCE AND
HADOOP APPLICATIONS + GPU UTILIZATION METHODS + DATA STREAMING
Chair: Bassam Zahran
Towson University, Maryland, USA
July 31, 2019 (Wednesday); 11:40am - 01:00pm
(LOCATION: Galleria E)

11:40 - 12:00pm: A Speculation and Prefetching Model for Efficient
Computation of MapReduce Tasks on Hadoop HDFS System
Lan Yang
Computer Science Department, California State Polytechnic
University Pomona, Pomona, California, USA

12:00 - 12:20pm: A GPU-MapCG Based Parallelization of BSO Metaheuristic
for Molecular Docking Problem
Hocine Saadi, Malika Mehdi, Nadia Nouali Taboudjemat,
H. Benboudjelthia, and S. Ousmer
CERIST Research Center Algiers, Algeria; Universite des
Sciences et de la Technologie Houari Boumediene, Algeria

12:20 - 12:40pm: An Actor-Based Runtime Environment for Heterogeneous
Distributed Computing
Ahmed Abdelmoamen Ahmed, Tochukwu Eze
Department of Computer Science, Prairie View A&M
University, Prairie View, Texas, USA

12:40 - 01:00pm: An Insight into Security Approach in Data Stream Mining
Kiran Amin, Aniket Patel, Dhvani Amin
Dean, Engineering & Technology, Ganpat University,
Gujarat, India; Department of CSE, U. V. Patel College
of Engineering, Gujarat, India; Department of CE,
U. V. Patel College of Engineering, Gujarat, India

SESSION 11-MSV: --------> CONCURRENT SESSION WITH SESSION 14-IPCV
SIMULATION AND MODELING METHODS AND APPLICATIONS
Co-Chairs: Dr. Andrei Chtcheprov* & Dr. Noha Hazzazi**
* Fannie Mae, USA;
** Department of Electrical Engineering &
Computer Science, Howard University, USA
July 31, 2019 (Wednesday); 01:20pm - 02:00pm
(LOCATION: Galleria E)

01:20 - 01:40pm: Data Augmentation for CECL Compliance in Automobile Finance
Daniel A. Parry, John M. Medellin
Chief Executive Officer and Chief Technology Officer,
TruDecision, Inc., Grapevine, Texas, USA

01:40 - 02:00pm: Generating Random Circuits: A Study in Data Generation
Peter M. Maurer
Department of Computer Science, Baylor University,
Waco, Texas, USA
SESSION 12-PDPTA: --------> CONCURRENT SESSION WITH SESSION 14-IPCV
HPC AND NOVEL APPLICATIONS + DATA SCIENCE + OPTIMIZATION METHODS + COMMUNICATION ISSUES
Chair: Dr. Yasser Mohammed Hausawi
Director of Trainees Affairs Department,
Institute of Public Administration, IT Department,
Makkah Al-Mukaramah Region Branch, Saudi Arabia
July 31, 2019 (Wednesday); 02:00pm - 03:20pm
(LOCATION: Galleria E)

02:00 - 02:20pm: High-Performance Host-Device Scheduling and Data-Transfer Minimization Techniques for Visualization of 3D Agent-Based Wound Healing Applications
Nuttiiya Seekhao, Grace Yu, Samson Yuen, Joseph Jaja, Luc Mongeau, and Nicole Y. K. Li-Jessen
Department of ECE, University of Maryland - College Park, Maryland, USA; Department of Mechanical Eng, McGill University, Montreal, Canada; School of Communication Sciences and Disorders, McGill University, Montreal, Canada

02:20 - 02:40pm: PECT: A Program Energy Consumption Tuning Tool
Cuijiao Fu, Depei Qian, Tianming Huang, Zhongzhi Luan
Sino-German Joint Software Institute, School of Computer Science and Engineering, Beihang University, China

02:40 - 03:00pm: New Dynamic Warp Throttling Technique for High Performance GPUs
Gwang Bok Kim, Jong Myon Kim, Cheol Hong Kim
School of ECE, Chonnam National University, Gwangju, Republic of Korea; IT Convergence Department, University of Ulsan, Ulsan, Republic of Korea

03:00 – 03:20pm: Fault-tolerant Routing based on Fault Information of Cross-edges in Dual-cubes
Nobuhiro Seki, Kousuke Mouri, Keiichi Kaneko
Graduate School of Engineering, Tokyo University of Agriculture and Technology, Tokyo, Japan

03:20 - 03:40pm: POSTER DISCUSSION SESSION C-IPCV-CSC-GCC
July 31, 2019 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

o. Chroma Uniformity Assessment of LED Display Based on HVS
Baixiu Ding, Yingnan Geng, Mi Lu
School of EE & Computer, Jilin Jianzhu University, Changchun, Jilin, China; Department of ECE, Texas A & M University, College Station, Texas, USA; College of Electrical & Information Eng, Changchun Institute of Technology, Changchun, Jilin, China

o. Real-Time Embedded System for Human Detection and Tracking
Chun-Chieh Lee, Chiao-Wen Kao, Kuo-Chin Fan
Department of Computer Science & Information Engineering, National Central University, Taoyuan City, Taiwan

o. ...
SESSION 12-PDPTA: -------> CONCURRENT SESSION WITH SESSION 14-IPCV
Continued ...
HPC AND NOVEL APPLICATIONS + DATA SCIENCE + OPTIMIZATION METHODS
Chair: Dr. Yasser Mohammed Hausawi
Director of Trainees Affairs Department, Institute of Public Administration, IT Department, Makkah Al-Mukaramah Region Branch, Saudi Arabia
July 31, 2019 (Wednesday); 03:40pm - 04:20pm
(LOCATION: Galleria E)

03:40 - 04:00pm: Docker based Platform for Real time Face Recognition
Jongkwon Jang, Sanggil Yeoum, Moonseong Kim, Byungseok Kang, Hyunseung Choo
Department of ECE, Sungkyunkwan University, Suwon, Korea;
Department of Liberal Arts, Seoul Theological University, South Korea;
Department Electronics, Computing & Mathematics, University of Derby, UK

04:00 - 04:20pm: Calculating Three Thermal Coefficients from One Data Set
Abdelwahab Kharab
Department of Applied Mathematics, Abu Dhabi University, Abu Dhabi, United Arab Emirates, UAE

SESSION 13-CSC: COMPUTATIONAL SCIENCE, OPTIMIZATION, PERFORMANCE ANALYSIS, ALGORITHMS AND APPLICATIONS
Chair: Dr. Haydar Teymourlouei
Assistant Professor and Cyber Security Specialist, Department of Technology & Security, Bowie State University, Maryland, USA
July 31, 2019 (Wednesday); 04:20pm - 06:00pm
(LOCATION: Galleria E)

04:20 - 04:40pm: Jobmon: So You Can Go Home on the Weekend
Geoffrey Phipps, Tom Fleming, Megan Moore, Disha Patel, Christine Pinho, Logan Sandar, Naris Silpakit, Liming Xu
Institute for Health Metrics and Evaluation, University of Washington, Seattle, Washington, USA

04:40 - 05:00pm: Blockchain: How Do You Enhance the Authentication and Verification of the Identity of a User to Prevent Data Breaches and Security Intrusions?
Haydar Teymourlouei, Lethia Jackson
Department of Technology & Security, Bowie State University, Bowie, Maryland, USA

05:00 - 05:20pm: Combat Security and Privacy Challenges of the Internet of Things, as an Intelligent System
Haydar Teymourlouei, Daryl Stone
Department of Technology & Security, Bowie State University, Bowie, Maryland, USA

05:20 - 05:40pm: How May Location Analytics Be Used to Enhance the Reliability of the Smart Grid?
Vivian Sultan, Brian Hilton
Claremont Graduate University, Center For Information Systems & Technology, Claremont, California, USA

05:40 - 06:00pm: A Survey on Energy Consumption Oriented Program Test and Analysis Technology and Tools
Cujiiao Fu, Depei Qian, Tianming Huang, Zhongzhi Luan
Sino-German Joint Software Institute, School of Computer Science & Eng, Beihang University, Beijing, China
SESSION 14-IPCV: IMAGING SCIENCE, NOVEL ALGORITHMS AND APPLICATIONS
Co-Chairs: Prof. Bahram Shafai* & Dr. Hong Zhang**
  * ECE, Northeastern University, Boston, Massachusetts, USA;
  ** Department of Computer Science, Georgia Southern University, Georgia, USA
July 31, 2019 (Wednesday); 12:40pm - 03:00pm
(LOCATION: Galleria B)

12:40 – 01:00pm: Non-Contact Surface Displacement Measurement for Concrete Samples Using Image Correlation Technique
Hector Cruz, Siavash F. Aval, Keyur Dhawan, Mohammad Pourhomayoun, Tonatiuh Rodriguez-Nikl, Mehran Mazari
California State University, Los Angeles, California, USA

01:00 - 01:20pm: Integrated Application for Computer-Aided Image Stitching, Navigation, and Analysis for Large-Scale Whole-Slide Osteosarcoma Images
Bogdan Armaselu, Rashika Mishra, Harish Arunachalam, Saloni Agarwal, and Ovidiu Daescu
Department of Computer Science, University of Texas at Dallas, Dallas, Texas, USA

01:20 - 01:40pm: New Initialization Strategy for Nonnegative Matrix Factorization
Yueyang Wang, Bahram Shafai
ECE, Northeastern University, Massachusetts, USA

01:40 - 02:00pm: Unsupervised Weighed Graph-Based Terrain Filtering Using Terrestrial Laser Scanning Data
Yassine Belkhouche
Department of Computing Sciences, Texas A&M University-Corpus Christi, Texas, USA

02:00 - 02:20pm: On the Agreement of Commodity 3D Cameras
Johan Hagelback, Alisa Lincke, Welf Lowe, Eduard Rall
DISA, Linnaeus University, Kalmar, Sweden; AIMO AB, Stockholm, Sweden

02:20 - 02:40pm: On Stationary Periodic Kernels
Hongjun Su, Hong Zhang
Department of ECE, Georgia Southern University, Savannah, Georgia, USA; Department of CS, Georgia Southern University, Savannah, Georgia, USA

02:40 - 03:00pm: A Convolution Neural Network Based Smart Parking System
Andres Estebanez, Praveen Meduri
Department of CE, California State University at Sacramento, California, USA; EEE, California State University at Sacramento, California, USA
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 15-PDPTA: PARALLEL & DISTRIBUTED PROCESSING & ALGORITHMS + CLOUD COMPUTING + PERFORMANCE ANALYSIS + INTERCONNECTION TOPOLOGIES
Chair: Dr. Sakir Yucel
NetApp, USA
August 1, 2019 (Thursday); 08:20am - 10:40am
(LOCATION: Galleria E)

08:20 - 08:40am: FREE SLOT

08:40 - 09:00am: Multi-start Parallel Tabu Search for the Blocking Job Shop Scheduling Problem
Adel Dabah, Nadia Nouali Taboudjemat, Abdelhakim AitZai, and Ahcene Bendjoudi
Division of Computer Science and Engineering, CERIST Research Center, Algiers, Algeria; Department of CS, University of Sciences and Technology Houari Boumediene, Algiers, Algeria

09:00 - 09:20am: Resilient and Hierarchical Controller Placement Problem for Collaborative Virtual SDN Services
Sakir Yucel
NetApp, Wexford, Pittsburgh, USA

09:20 - 09:40am: The Weakly Dimension-Balanced Pancyclic on Tm,n for m or n Being Even and the Other Being Odd
Ruei-Yu Wu, Zong-You Lai, Justie Su-Tzu Juan
Department of Management Information Systems, Hwa Hsia University of Technology, Taiwan; Department of CS & Information Engineering, National Chi Nan University, Nantou, Taiwan

09:40 - 10:00am: Atomic Commitment Protocol in Distributed Systems with Fail-Stop Model
Sung-Hoon Park, Su-Chang Yoo, Yong-Hwan Kim
Department of CE, Chungbuk National University, Chungbuk, Korea

10:00 - 10:20am: Controller Placement Problem for Virtual SDN Services
Sakir Yucel
NetApp, Wexford, Pittsburgh, USA

10:20 - 10:40am: Dynamically Adjusting the Stale Synchronous Parallel Model in Edge Computing
Sangsu Lee, Taeho Lee, Yili Wang, Hee Yong Youn
Department of ECE, The University of Texas at Austin, Texas, USA; Department of EE & CE, Sungkyunkwan University, Suwon, Korea
SESSION 16-IPCV: IMAGING SCIENCE, MACHINE LEARNING, DEEP NETWORKS AND VARIATIONS + SENSOR TECHNOLOGIES + IMAGING ALGORITHMS
Chairs: TBA
August 1, 2019 (Thursday); 10:40am - 12:20pm
,LOCATION: Galleria E

10:40 - 11:00am: Modality Detection and Classification of Biomedical Images with Deep Transfer Learning and Feature Extraction
Mahmudur Rahman, Jose Dixon
CS Department, Morgan State University, Maryland, USA

11:00 - 11:20am: No-Reference Video Quality Assessment Using Spatial, Temporal, Transform, and Spatiotemporal Features
Yi-Lun Chiang, Jin-Jang Leou
Department of CS & Information Engineering, National Chung Cheng University, Taiwan

11:20 - 11:40am: A System for the Detection and Identification of Objects and Their Distances to Aid Blind People
Abdelfatah A. Tamimi, Alaa A. Abu Hammad, Ayman M. Abdalla, and Omaima N. Al-Allaf
Faculty of Science and Information Technology, Al-Zaytoonah University of Jordan, Amman, Jordan

11:40 - 12:00pm: 3D Surface Reconstruction of Trees using a Region-based Active Contour Model
Shijun Tang, Sihai Tang
Department of Science and Mathematics, Alvernia University, Reading, PA, USA; Department of CSE, University of North Texas, Denton, Texas, USA

12:00 - 12:20pm: Development of Unsupervised Credit Scoring System and Document Processing using Optical Character Recognition
Nnenna Christine Martin, Kutlwano Motlhabedi, Marijke Coatzee, Donald Ray Martin, and Nikescha Parson
ResearchLink International Inc., Greensboro, North Carolina, USA; Computer Science & Software Engineering, University of Johannesburg, South Africa
SESSION 17-CSC: COMPUTATIONAL SCIENCE, OPTIMIZATION, PERFORMANCE
ANALYSIS, ALGORITHMS AND APPLICATIONS
Chair: Joseph M. Suprenant
Air Force Research Laboratory - Information
Directorate, Rome, New York, USA
August 1, 2019 (Thursday); 12:40pm - 03:20pm
(LOCATION: Galleria E)

12:40 – 01:00pm: Factors to Provide "Real Feel" that Accompanies the Use of
Analog Devices
Yulana Watanabe, Takayuki Fujimoto
Graduate School of Information Sciences and Arts,
Toyo University, Tokyo, Japan

01:00 - 01:20pm: GPU Comparison of a Diffuse Interface Model with Finite
Difference and Fourier Methods
Roberto Salas, Juan J. Tapia
CETYS Universidad. Tijuana B. C., Mexico; Instituto
Politecnico Nacional CITEDI, Tijuana B.C., Mexico

01:20 - 01:40pm: A Method of Implementing the Sensation of Operating
Analog Tool on Smartphone
Ziran Fan, Takayuki Fujimoto
Graduate School of Information Sciences and Arts,
Toyo University, Saitama, Japan

01:40 - 02:00pm: Measuring Performance of Shared Applications in a Web
Environment
Mugisa Tibaleka Joshua, Joseph K. Balikuddembe
Expanding Social Protection Programme (ESPP), Ministry
of Gender, Labour & Social Development, Kampala, Uganda;
Department of Networks, School of Computing &
IT, Makerere University, Kampala, Uganda

02:00 - 02:20pm: Construction of Remote Class Environment by "Low-Cost
Computing" and Introduction of Class Support Application
Kazuya Murata
Graduate School of Information Sciences and Arts,
Toyo University, Tokyo, Japan

02:20 - 02:40pm: Measures for the Cold Chain Industry in the Era of the
Fourth Industrial Revolution
Hyung Rim Choi, Kangbae Lee, Doo-Hwan Kim, Sung-Ho Park,
and Sang Ha Sung
Management Information Systems, Dong-A University,
Busan, South Korea

02:40 - 03:00pm: Proposal of Smartphone Usage Control Application Linked
with Camera Function
Miki Sunakawa, Takayuki Fujimoto
Graduate School of Information Sciences and Arts,
Toyo University, Tokyo, Japan

03:00 - 03:20pm: Definition of "Internet Flaming" and Prototype Case Database
Yui Tanaka, Takayuki Fujimoto
Graduate School of Information Sciences and Arts,
Toyo University, Tokyo, Japan
SESSION 18-CSC: SCIENTIFIC COMPUTING + SIMULATION AND MODELING + SOFTWARE ENGINEERING FRAMEWORKS AND APPLICATIONS
Chair: Joseph M. Suprenant
Air Force Research Laboratory - Information Directorate, Rome, New York, USA
August 1, 2019 (Thursday); 03:20 pm - 06:00 pm
(LOCATION: Galleria E)

03:20 - 03:40 pm: Materials Genome Software Framework: Scalable Parallel Simulation, Virtual Reality Visualization and Machine Learning
Ankit Mishra, Nitish Baradwaj, Lindsay Bassman, Brandon K. Horton, Subodh Tiwari, Sungwook Hong, Aravind Krishnamoorthy, Erick Moen, Pankaj Rajak, Rajiv Kalia, Aichiro Nakano, Ken-Ichi Nomura, Fuyuki Shimojo, and Priya Vashishta
MAterials Genome Innovation for Computational Software (MAGICS), Collaboratory of Advanced Computing & Simulations, Department of CS, Department of Physics & Astronomy, Department of Chemical Engineering & Materials Science, Department of Biological Sciences, University of Southern California, Los Angeles, USA; Broad Center for Biological Sciences, California Institute of Technology, Pasadena, California, USA; Argonne Leadership Computing Facility, Argonne National Laboratory, Chicago, Illinois, USA; Department of Physics, Kumamoto University, Japan

03:40 - 04:00 pm: A Linear Approach to Network Performance Modeling and a Consolidation of Linear Performance Models of the Leap Cluster
D. Johnson, D. Valles
Ingram School of Engineering, Texas State University, San Marcos, Texas, USA

04:00 - 04:20 pm: Simulation on Optimal Wrist Design of Wrist-hollow Type 6-axis Articulated Robot using Genetic Algorithm
Hyeon Min Jo, Won Jee Chung, Dong Jae Lim, Yoon Ju Ahn, Seong Ju Kim
School of Mechatronics, Changwon National University, Changwon, Gyeongsangnam-do, South Korea; R&D Center, Robot Valley Co., Ltd., Changwon, Gyeongsangnam-do, South Korea; R&D Center, OTO Robotics Co., Ltd., Kyungsan, Gyeongsangbuk-do, South Korea

04:20 - 04:40 pm: Local Linear Regression Model Implemented in GIS
Edgar Jardon Torres, Fany Lizbeth Gomez Quitana, and Marcelo Romero Huertas
Universidad Autonoma del Estado de Mexico, Mexico

04:40 - 05:00 pm: Phase Lengths in the Cyclic Cellular Automaton
Kiran Tomlinson
Department of CS, Carleton College, MN, USA

05:00 - 05:20 pm: An SNS Mechanism to Highlight Low-profile Information
Taishi Nemoto, Takayuki Fujimoto
Graduate School of Information Sciences and Arts, Toyo University, Tokyo, Japan

05:20 - 05:40 pm: Impact Assessment of Profit and Emission Objectives on the Operational Scheduling of a Virtual Power Plant
H. A. Shayanfar, H. Karimipour, S. Hadayeghparast
College of Technical & Engineering, South Tehran Branch, Islamic Azad University, Tehran, Iran; Department of Engineering, University of Guelph, Guelph, Canada; School of EE, Iran University of Science & Technology, Tehran, Iran

05:40 - 06:00 pm: FREE SLOT
FECS'19 + EEE'19 + SERP'19 + FCS'19 + ICOMP'19 + ESCS'19 + IKE'19

CONFERENCE SCHEDULES

The Proceedings are available at https://americancse.org/events/csce2019/proceedings

These conferences have significant topical overlap. The Steering Committee, in consultation with the program committees of these conferences, decided to merge the presentation schedules of these conferences into one comprehensive program to facilitate increased opportunities for cross-fertilization across these research topics. Therefore, the conference attendees, speakers, and participants should be mindful of the fact that there are a number of Concurrent sessions in this comprehensive schedule.

FECS'19: The 15th International Conference on Frontiers in Education: Computer Science and Computer Engineering
+ EEE'19: The 18th International Conference on e-Learning, e-Business, Enterprise Information Systems, & e-Government
+ SERP'19: The 17th International Conference on Software Engineering Research and Practice
+ FCS'19: The 15th International Conference on Foundations of Computer Science
+ ICOMP'19: The 20th International Conference on Internet Computing and IoT
+ ESCS'19: The 17th International Conference on Embedded Systems, Cyber-physical Systems, and Applications
+ IKE'19: The 18th International Conference on Information & Knowledge Engineering

In addition, there are a number of other sessions (not listed as part FECS, EEE, SERP, FCS, ICOMP, ESCS, IKE) that are of potential interest (sessions belonging to other joint conferences). Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in CSC (Scientific Computing), SAM (Security), ICDATA (Data Science), ICAI (Artificial Intelligence), HIMS (Health Informatics), IPCV (Vision), and PDPTA (Parallel & Distributed Processing) conferences discuss topics that are within the scope of FECS, EEE, SERP, FCS, ICOMP, ESCS, IKE; these have been scheduled so that many attendees can also participate in them.

Each conference is divided into a number of topical sessions. These sessions are not necessarily scheduled in the same room/location. Therefore, conference attendees are to check the location of the tracks they wish to attend; The conference room numbers (locations) appear in this document.

July 28

03:00p - 07:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:30 - 09:00am: CONGRESS WELCOME REMARKS - July 29, Monday:
Prof. Hamid R. Arabnia (Chair, Steering Committee & Coordinator), Department of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC).
(LOCATION: Galleria B-C)

09:00 - 10:00am: KEYNOTE LECTURE - July 29, Monday:
INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING
Prof. Diego Galar
Professor of Lulea University of Technology, Sweden; Head of Maintenance & Reliability, Tecnalia, Spain; Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe.
(LOCATION: Galleria B-C)

10:00 - 10:15am: INITIATIVES & PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY RESEARCHERS & PHD STUDENTS IN AFRICA & MOST DEVELOPING COUNTRIES
Nnenna Christine Martin
ResearchLink International Inc., North Carolina, USA
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK
SESSION 1-EEE-FECS: E-LEARNING, ON-LINE METHODS + WEB APPLICATIONS + CAPSTONE
DESIGN PROJECTS + ACCREDITATION ISSUES
Co-Chairs: Tonje Jin* & Samantha Papavasiliou**
* Assistant Professor, Norwegian University of Science & Technology, Norway;
** University of Adelaide, Australia
July 29, 2019 (Monday); 10:40am - 12:40pm
(LOCATION: Galleria D)

10:40 - 11:00am: Thoughts on Adding Information Assurance Education in an Online Hospitality Program
Eamon Doherty, Joe Tormey, Elly Goei
Fairleigh Dickinson University, Teaneck, New Jersey, USA;
Fairleigh Dickinson University, Vancouver Campus, British Columbia, Canada

11:00 - 11:20am: An Internet of Things Drone Data Mule
Drew Cochrane, Nolan Evans, Michael Lane, Grant Woodbury, Xi Yin, Corey Zrobek, Marcia Friesen, Ken Ferens
Department of Electrical and Computer Engineering, University of Manitoba, Winnipeg, MB, Canada

11:20 - 11:40am: A Simple Approach to Teach Email Forensics to Online Students
Eamon Doherty, Mike Divito, Joseph Devine
Fairleigh Dickinson University, New Jersey, USA

11:40a - 12:00p: Walkie Talkie Web
Divya Vani Vasarla, John Jenq
Computer Science Department, Montclair State University, Montclair, New Jersey, USA

12:00 - 12:20pm: Is Technology Contributing to Academic Dishonesty?
Tabandeh Harraf
University of Northern Colorado, Colorado, USA

12:20 - 12:40pm: Seeking ABET Accreditation: A Case Study in Outcome Assessment
John Carelli
Computer Science and Information Technology, Kutztown University of Pennsylvania, Kutztown, PA, USA

12:40 - 01:20pm: LUNCH (On Your Own)
SESSION 2-FECS: LEARNING METHODOLOGIES & COGNITION + DISTANCE LEARNING, ON-LINE EDUCATION, AND RELATED ISSUES
Co-Chairs: Prof. Craig Speelman*, Jonathan Fowler**, & Tonje Jin***
* Associate Dean Research, Director of the Cognition Research Group, Edith Cowan University, Australia;
** Colorado Technical University, Colorado, USA;
***Assistant Professor, Norwegian University of Science and Technology, Norway

July 29, 2019 (Monday); 01:20pm - 03:20pm
(LOCATION: Galleria D)

Minh-Tuan Tran, Shinobu Hasegawa
School of Information Science, Entertainment Technology Area, Japan Advanced Institute of Science and Technology (JAIST), Ishikawa, Japan; Research Center for Advanced Computing Infrastructure, Japan Advanced Institute of Science and Technology (JAIST), Ishikawa, Japan

01:40 - 02:00pm: Teaching an International Distributed Discussion-Based Course
Jeff Offutt, Birgitta Lindstrom, Kesina Baral
School of Informatics, University of Skovde, Sweden; Software Engineering, George Mason University, Fairfax, Virginia, USA

02:00 - 02:20pm: Finding Big Liars: A Computational Challenge
R. D. McLeod, L. L. Livolsi-Merritt, M. R. Friesen
CE, University of Manitoba, Winnipeg, MB, Canada

02:20 - 02:40pm: Effective Use of Slack and Short Video to Scale Online Learning Communities
Alexandra Mehlhase, Robert Heinrichs, Kevin A. Gary
School of Computing, Informatics, and Decisions Systems Engineering, Arizona State University, Tempe, Arizona, USA

02:40 - 03:00pm: Developing a Recipe Planning Board Game by Design Thinking Approach
Shian-Shyong Tseng, Tsung-Yu Yang, Ai-Chi Lu
Department of M-Commerce and Multimedia Applications, Asia University, Taiwan, ROC; Department of CS and Information Engineering, Asia University, Taiwan, ROC; Taiwan Network Information Center, TWNIC, Taiwan, ROC

03:00 - 03:20pm: ABET Accreditation: Strategies for Curriculum Design and Assessment Plan
Quoc-Nam Tran
Department Head & Professor of Computer Science, Southeastern Louisiana University, Louisiana; & ABET’s Program Evaluator, USA
03:20 - 03:40pm: POSTER DISCUSSION SESSION A-FECS-EEE-...
July 29, 2019 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

• "Teach Us", A Proposed New Tool for Online Education
  Tonje Jin, Dag Wessel-Berg
  Department of Mathematical Sciences, The Norwegian
  University of Science & Technology, Gjovik, Norway;
  Department of Mathematical Sciences, The Norwegian
  University of Science and Technology, Trondheim, Norway

• A Real-Time Wireless Ultra-wideband Indoor Positioning
  System with Fast Computation Algorithm
  Wen Piao Lin, Yu-Fang Hsu
  Department of EE, Chang Gung University, Taiwan;
  Department of EE, Chienkuo Technology University, Taiwan

• ...
SESSION 3-SERP-FCS: CONCURRENT SESSION WITH SESSION 19-IKE
SOFTWARE ENGINEERING RESEARCH + ALGORITHMS, COMPLEXITY
STUDIES, SYSTEM DESIGN, AND APPLICATIONS
Co-Chairs: Prof. M. K. A. Ahamed Khan* & Prof. Ahmed Tarek**
* UCSI University, Kuala Lumpur, Malaysia;
** Engineering, Physical & Computer Sciences Department,
    Montgomery College, Rockville Campus, Maryland, USA
July 29, 2019 (Monday); 03:40pm - 06:00pm
(LOCATION: Galleria D)

03:40 - 04:00pm: Sustainable Mobility: Developing a Web-based Software Suite
for Transportation and Traffic Analysis using Google Maps
Myles McIeroy, Ben Hallihan, Blake Wright, Travis Atkison
Department of CS, University of Alabama, Tuscaloosa, USA

04:00 - 04:20pm: Mobile Application Development Process in Real Environments
Hazem Abdelkarim Al-Rabaiah, Nuria Medina-Medina
University of Granada, Granada, Spain

04:20 - 04:40pm: A Time Comparison Between AVL Trees and Red Black Trees
Carson Davis, James Jackson, Johnnie Oldfield, Tamikal Johnson, Matthew Hale, Anurag Dasgupta
CS, Valdosta State University, Valdosta, Georgia, USA

04:40 - 05:00pm: The Complement Approach to Subtraction Using Addition in
Computer Number Systems
Ahmed Tarek, Ahmed Alveed
Owen J. Roberts High School, Pottstown, PA, USA;
Engineering, Physical and Computer Sciences Department,
Science, Engineering & Technology (SET) Division,
Montgomery College, Rockville Campus, Maryland, USA;

05:00 - 05:20pm: An Improved Network Cost for New Fixed Degree Interconnection
Network and Routing Algorithm
Jung-hyun Seo, Jong-Seok Kim, Hyeong-Ok Lee
Department of Computer Education, Sunchon National
University, Chonnam, Republic of Korea; Department of
Mathematics & Physics, North Carolina University, Durham, USA

05:20 - 05:40pm: An Evaluation of the Aptus within Selected Primary Schools in Samoa
Ioana Chan Mow, Edna Temese, Vensel Chan, Fiafaitupe Lafaele, Misioka Tanielu, Ioana Sinclair, Elisapeta Mauai, Mose Mose,
Tara Patu, Joseph Namulauulu
Computing Department, National University of Samoa, Samoa

05:40 - 06:00pm: Are Coding Standard’s Violations-based Metrics Effective
Predictors of Faulty Object-Oriented Classes?
Mahmoud O. Elish, Bashar Q. Ahmed
Computer Science Department, Gulf University for Science
and Technology, Mishref, Kuwait; Computer Science
Department, Taiz University, Taiz, Yemen
SESSION 19-IKE: ------- > CONCURRENT SESSION WITH SESSION 3-SERP-FCS
INTERNATIONAL WORKSHOP ON ELECTRONICS & INFORMATION TECHNOLOGY; IWEIT-2019
Chair: Prof. Cheng-Ying Yang,
University of Taipei, Taiwan
July 29, 2019 (Monday); 05:00 - 06:40pm
(LOCATION: Galleria A) <---------------------- note the room change

05:00 - 05:20pm: Realization of Intelligent Management Platform for Cyber-Physical Systems
Nai-Wei Lo
NTUST, Taipei, Taiwan

05:20 - 05:40pm: Introversion, Extraversion and Online Social Support among Facebook and LINE users
Jih-Hsin Tang, Tsai-Yuan Chung, Ming-Chun Chen, Yi-Lun Wu
NTUB, Taipei, Taiwan

05:40 - 06:00pm: Algorithms for the p-Centdian Problem
Yen Hung Chen
University of Taipei, Taiwan

06:00 - 06:20pm: Greedy Algorithm Applied Secrecy Rate Analysis in the Cooperative Communication
Jong-Shin Chen, Shu-Chen Chang, Pin-Yen Huang, and Cheng-Ying Yang
University of Taipei, Taiwan

06:20 - 06:40pm: LSTM Neural Network for Electricity Consumption Forecast
Ying-Chin Lin, Yu-Min Zhang, Yen Hung Chen, and Wei-Kuang Wang
Department of Applied Mathematics, Feng Chia University, Taichung, Taiwan

07:30 - 10:30pm: CONFERENCE RECEPTION DINNER / SOCIAL
July 29 - Monday; 07:30pm
(LOCATION: Egyptian Ballroom)
SESSION 4-SERP: SOFTWARE ENGINEERING RESEARCH + SOFTWARE MAINTENANCE & EVOLUTION + AGILE DEVELOPMENT + SOFTWARE SYSTEMS
Chair: Prof. Ehsan Sheybani
University of South Florida, USA
July 30, 2019 (Tuesday); 08:20am - 10:20am
(LOCATION: Galleria D)

08:20 - 08:40am: Modular and Evolutionary Architecture for High Availability Transactional Systems with Intelligent Components
Luz-Viviana Cobaleda E., John-Freddy Duitama, German E. Melo-Acosta, Julian D. Arias-Londono
Intelligent Information Systems Lab, Universidad de Antioquia, GIDATIC - Universidad Pontificia Bolivariana, Medellin, Colombia

08:40 - 09:00am: An Exploratory Study on Fuzzing and Concolic Execution Engines for Automated Vulnerability Discovery
Caleb Davenport, Ahmad Y. Javaid
EE & CS Department, The University of Toledo, Ohio, USA

09:00 - 09:20am: Trust: Promoting Interdependence, Knowledge Sharing and Collaboration in Scrum Teams
Trish O'Connell, Owen Molloy
School of Science & Computing, Galway-Mayo Institute of Technology, Galway, Ireland; Department of IT, National University of Ireland, Galway, Ireland

09:20 - 09:40am: Statistical Equations for Predicting the Monetary Cost of Software Projects
Cuauhtemoc Lopez-Martin
Department of Information Systems, Universidad de Guadalajara, Zapopan, Jalisco, Mexico

09:40 - 10:00am: Voice to Musical Instrument Translation in a Performance Environment
John Carelli
Computer Science and Information Technology, Kutztown University of Pennsylvania, Kutztown, PA, USA

10:00 - 10:20am: Initial Evaluation of Personal Identification System Using Walking Footstep Sound of One Step
Yuki Hori, Takahiro Ando, Akira Fukuda
Graduate School, Faculty of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan

10:20 - 10:40am: BREAK
SESSION 5-FECS: TEACHING METHODOLOGIES, ADVISING METHODS, TOOLS & RELATED STUDIES + CURRICULUM DESIGN + CAPSTONE PROJECTS
Co-Chairs: Prof. James McGinnis, Jr.*, Prof. Bill Hefley**, & Prof. Wen-Jung Hsin***
* University of Memphis, Tennessee, USA;
** Naveen Jindal School of Management, The University of Texas at Dallas, Texas, USA;
*** Professor of Computer Science, Park University, Parkville, Missouri, USA
July 30, 2019 (Tuesday); 10:40am - 12:40pm
(LOCATION: Galleria D)

10:40 - 11:00am: A Visualization Aid for Cybersecurity Education
Gabriel Castro Aguayo, Ulises Morales, Xiaoyu Long, Quamar Niyaz, Xiaoli Yang, Ahmad Y. Javaid
ECE Department, College of Engineering and Sciences, Purdue University Northwest, Hammond, Indiana, USA;
EECS Department, College Of Engineering, University of Toledo, Ohio, USA

11:00 - 11:20am: Using a Telepresence Robot in an Educational Context
Laurent Gallon, Angélique Abenia, Francoise Durbegay, and Maite Neguy
LIUPPA - University of Pau and Pays de l'Adour, France;
SAPAD40, Pupilles de l'Enseignement Public (PEP) des Landes Mont de Marsan, France

11:20 - 11:40am: A Hands-on Oriented Cyber-learning Curriculum for Undergraduate Cybersecurity Education
Yaswanth Kolli, Ahmad Y. Javaid
Department of EECS, The University of Toledo, Ohio, USA

11:40 - 12:00pm: Co-construction of Computer Science Knowledge-to-be-taught in a French Context
V. Chiprianov, L. Gallon, T. Duron
IRISA, University of South Britain, Rennes, France;
LIUPPA, University of Pau and Pays de l'Adour, France

12:00 - 12:20pm: Design and Development of a Modular K12 Cybersecurity Curriculum
Ehsan Sheybani, Giti Javidi, Zacharias Pieri
University of South Florida, Sarasota, Florida, USA

12:20 - 12:40pm: Cybersecurity Capstone Case Study: Closing the Loop on Technology Competency Literacy
Lethia Jackson, Velma Latson, Haydar Teymourouei
Department of Technology & Security, Bowie State University, Bowie, Maryland, USA
SESSION 6-ICOMP-IKE-ESCS: INTERNET COMPUTING & IOT + INFORMATION ENGINEERING + EMBEDDED SYSTEMS
Co-Chairs: Prof. Ajay K. Katangur*, Dr. Ahmed Abdelmoamen Ahmed**, & Dr. Quamar Niyaz***
* Professor & Department Head of Computer Science, Missouri State University, Missouri, USA;
** Department of Computer Science, Prairie View A&M University, Texas, USA;
*** Purdue University Northwest, Indiana, USA
July 30, 2019 (Tuesday); 01:00pm - 03:20pm
(LOCATION: Galleria D)

01:00 - 01:20pm: Adaptive Computing and Big Data Analytics for Business Intelligence
Ehsan Sheybani, Giti Javidi
College of Business, University of South Florida, Sarasota, Florida, USA

01:20 - 01:40pm: Improving Smart Buildings by Integrating User Contexts
Olaf Droegehorn, Henrique R. Sarmento
Department of Automation & Computer Science, Harz University of Applied Sciences, Wernigerode, Germany

01:40 - 02:00pm: Internet of Drives: A Global Key-Value Store System using Kinetic Drives
Xiang Cao, Cheng Li
School of Computing and Information Systems, Grand Valley State University, Allendale, Michigan, USA

02:00 - 02:20pm: Energy Profiling of iOS Apps to Detect Causes of Energy Drain
Gokila Dorai
Department of CS, Florida State University, Tallahassee, Florida, USA

02:20 - 02:40pm: COGITO: A Cognitive Dynamic System to Allow Buildings to Learn and Adapt
Giandomenico Spezzano
CNR - National Research Council of Italy, Institute for High Performance Computing and Networking (ICAR), Rende (CS), Italy

02:40 - 03:00pm: Healthcare Cybersecurity Issues: Framework for Healthcare Engineering Technology, University of Memphis, Tennessee, USA

03:00 - 03:20pm: A Model and Middleware for Composable IoT Services
Ahmed Abdelmoamen Ahmed
Department of Computer Science, Prairie View A&M University, Prairie View, Texas, USA
03:20 - 03:40pm: POSTER DISCUSSION SESSION B-FECS-EEE-...
July 30, 2019 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

- The Considerations for Training Computer Science Chinese International Students in Acadia University
  Haiyi Zhang
  CS Department, Acadia University, Wolfville, NS, Canada

- Active Learning in Computer Networking Course
  Wen-Jung Hsin
  Information and Computer Science, Park University, Parkville, Missouri, USA

- Outcome and Satisfaction Analysis for Online Exams in an E-learning Class
  Neftali Watkinson, Lubomir Bic
  Department of Computer Science, University of California, Irvine, California, USA

- Visualization of Context Sensitive Data Flow for Secure Object-Oriented Programming
  Young Lee, Jeong Yang
  Department of Computing and Cyber Security, Texas A&M University - San Antonio, Texas, USA

- ...
**03:40-04:40pm: KEYNOTE/INVITED LECTURE:**
What I Wish I Had Known about Giving Technical Presentations and Doing Technical Writing
Prof. H. J. Siegel
Fellow of the IEEE; Fellow of the ACM; Department of ECE and Department of Computer Science; Colorado State University, Fort Collins, Colorado, USA
(LOCATION: Galleria D)

**SESSION 7-FCS: ALGORITHMS, COMPLEXITY STUDIES, SYSTEM DESIGN, AND APPLICATIONS**
Co-Chairs: Dr. Quamar Niyaz* & Dr. Ahmad Y. Javaid**
* Purdue University Northwest, Indiana, USA; ** EE & CS, & Founding Director, Paul A. Hotmer Cybersecurity & Teaming Research (CSTAR) Lab, The University of Toledo, Ohio, USA
July 30, 2019 (Tuesday); 04:40pm - 06:00pm
(LOCATION: Galleria D)

**04:40 - 05:00pm:** Quantum Computing as a Threat to Modern Cryptography Techniques
Kevin Denker, Ahmad Y. Javaid
Electrical Engineering and Computer Science Department, The University of Toledo, Toledo, Ohio, USA

**05:00 - 05:20pm:** CrowdQuake: Social Networking for Crisis Management
Liliya I. Besaleva Mclean, Alfred C. Weaver
Department of Computer Science, University of Virginia, Charlottesville, Virginia, USA

**05:20 - 05:40pm:** On Primitive Recursiveness of Tic Tac Toe
Vladimir A. Kulyukin
Department of Computer Science, Utah State University, Logan, Utah, USA

**05:40 - 06:00pm:** On the Complexity of Programs with Nested Loops
Emanuele Covino*, Giovanni Pani
Dipartimento di Informatica, Universita di Bari, Italy
SESSION 8-SERP-FCS: SOFTWARE ENGINEERING RESEARCH & PRACTICE + ALGORITHMS
Co-Chairs: Prof. Kazuaki Maeda* & Prof. Ning Chen**
* Department of Business Administration & Information Science, Chubu University, Aichi, Japan;
** Department of Computer Science, California State University, Fullerton, California, USA
July 31, 2019 (Wednesday); 08:20am - 10:20am
(LOCATION: Galleria D)

08:20 - 08:40am: Sort Integers into a Linked List
Yijie Han, Hemasree Koganti, Nikita Goyal
School of Computing and Engineering, University of Missouri at Kansas City, Missouri, USA

08:40 - 09:00am: Improving Client Side Testing Automation in Continuous Integration - A Case Study
Sean Cox, Ning Chen
Department of Computer Science, California State University, Fullerton, California, USA

09:00 - 09:20am: Risk Priority Number for Construction Failures
Chandrasekhar Putcha, Jessica Rodriguez, Subhrajit Dutta, and Lauren Hebert
Department of Civil and Environmental Engineering, California State University, Fullerton, California, USA; Department of Civil Engineering, National Institute of Technology Silchar, India

09:20 - 09:40am: Study of the Identification of Contaminant Source in a Water
Maria D. Marquez, Phoolendra Mishra, Chandrasekhar Putcha
Department of Civil and Environmental Engineering, California State University, Fullerton, California, USA

09:40 - 10:00am: Performance Evaluation of Web Browsers for Vector Graphics Based Applications
Kazuaki Maeda
College of Business Administration and Information Science, Chubu University, Kasugai, Japan

10:00 - 10:20am: An XML-based E-Voting System: A Cost-Effective, Practical Algorithm for Small and Mid-Size Elections
Charitha Hettiarachchi, Imali Arthanayaka
School of Computer Science and Information Systems, Northwest Missouri State University, Missouri, USA; Department of Information Systems, St. Cloud State University, Minnesota, USA

10:20 - 10:40am: BREAK
SESSION 9-FECS-SERP: SOFTWARE ARCHITECTURES, SOFTWARE SYSTEMS + TEACHING STRATEGIES, ADVISING METHODS, TOOLS & RELATED STUDIES
Co-Chairs: Prof. Mudasser F. Wyne*, Dr. Charitha Hettiarachchi**, & Munienge Mbodila***
* Professor of Computer Science, Department of Engineering & Computing, National University, San Diego, California, USA;
** School of Computer Science and Information Systems, Northwest Missouri State University, Missouri, USA;
*** Walter Sisulu University, South Africa
July 31, 2019 (Wednesday); 10:40am - 12:20pm
(LOCATION: Galleria D)

10:40 - 11:00am: A Systematic Mapping Study on Software Reliability Growth Models that Consider Evolution
Lamees Alhazzaa, Anneliese Amschler Andrews
Computer Science Department, Al-Imam Muhammad Bin Saud Islamic University, Riyadh, Saudi Arabia; Department of Computer Science, University of Denver, Colorado, USA

11:00 - 11:20am: Resilience of the Human Immune System and Software Systems: A Comparative Study
Abdullah Alshammari, Peter Keiller, Hassan Karim
Electrical Engineering and Computer Science, Howard University, Washington, DC, USA

11:20 - 11:40am: Coding VR Games
Department of Computer Science, University of Dayton, Dayton, Ohio, USA; Department of Computer and Information Technology, Miami University, Oxford, Ohio, USA

11:40 - 12:00pm: Data-Driven Models to Predict Student Performance and Improve Advising in Computer Science
Varick L. Erickson
Computer Science, California State University East Bay, California, USA

12:00 - 12:20pm: Data Manipulation and Visualization (DMV): A Case Study
Mudasser F. Wyne, Anshu Chaudhary, Dhwani Doshi, and Manjusha Gusain
School of Engineering and Computing, National University, San Diego, California, USA

12:20 - 01:00pm: LUNCH (On Your Own)

01:00 - 01:40pm: INVITED LECTURE:
Changes in ABET Criteria: A Summary of Recent Changes
Prof. Benjamin J. Bishop, Ph.D
Professor of Computing Sciences, University of Scranton, Pennsylvania, USA
(LOCATION: Galleria D)

01:40 - 02:40pm: INVITED LECTURE:
Changes in ABET Criteria: Are you prepared for the Accreditation Visit?
Prof. Mudasser F. Wyne, Ph.D
Professor of Computer Science, Department of CS and Information Systems, School of Engineering & Computing, National University, San Diego, California, USA
(LOCATION: Galleria D)
SESSION 10-FECS: COMPUTER SCIENCE & COMPUTER PROGRAMMING, SOFTWARE ENGINEERING, AND WORK PRACTICES

Co-Chairs: Prof. Donald Schwartz*, Prof. Robert Hatch**, & Joshua Mugisa Tibaleka***

* School of Computer Science and Mathematics, Marist College, Poughkeepsie, New York, USA;
** The University of Virginia’s College at Wise, Virginia, USA;
*** Makerere University & Ministry of Gender Labour & Social Development, Uganda

July 31, 2019 (Wednesday); 02:40pm - 04:20pm
(LOCATION: Galleria D)

02:40 - 03:00pm: Increasing Student Engagement by Having Them Run Your Test Data Through Their Programs
Donald R. Schwartz
School of Computer Science and Mathematics, Marist College, Poughkeepsie, New York, USA

03:00 - 03:20pm: Entry-Level Data Science Work Practices and Environments
Bill Hefley, Jason Parker, Sourav Chatterjee
Naveen Jindal School of Management, The University of Texas at Dallas, Richardson, Texas, USA

03:20 - 03:40pm: BREAK

03:40 - 04:00pm: To GUI or Not to GUI: On how we teach introduction to programming
Antonio Sanchez, Bo Mei
Texas Christian University, Texas, USA

04:00 - 04:20pm: BATTLE 2018: Preparation of Future Cyber Technologists
Clarence Ray, Jesse Bemley
Department of Technology and Security, Bowie State University, Maryland, USA
SESSION 11-FECS: STEM, CAPSTONE PROJECTS, AND TOOLS

Co-Chairs: Prof. Robert Hatch* & Prof. Bill Hefley**

* The University of Virginia's College at Wise, Virginia, USA;
** Naveen Jindal School of Management, The University of Texas at Dallas, Texas, USA

July 31, 2019 (Wednesday); 04:20pm - 06:00pm
(LOCATION: Galleria D)

04:20 - 04:40pm: Involving Multiple Levels of Students in a Software Capstone Project - A Case Study
Robert Hatch, Nicholas Setliff
The University of Virginia’s College at Wise, Virginia, USA

04:40 - 05:00pm: VRSafe with Augmented and Virtual Reality: Toolkit for Harassment Prevention and Deescalation Sensitivity, Training and Best Practices
Lamia A. Djoudi, Indu M. Anand, Antoine Luu, Diego Galar, Ana Samedo, Linda Maisano
IFGI, Paris, France; Sushila Publications, Chelmsford Massachusetts, USA; Tobii, Stockholm, Sweden; Lulea University, Sweden; SNCF, France

05:00 - 05:20pm: Improving STEM Performance by Leveraging Machine Learning Models
Mohamed Aly, Mohammad Rashedul Hasan
Computer Science and Engineering, University of Nebraska-Lincoln, Nebraska, USA

05:20 - 05:40pm: Capstone - Introducing Students to Research Through Application Development in Teams
Katia Mayfield, Matthew Perry, Christopher Pounders, Lucas Pruitt, and Ory Wigington
Department of Mathematical, Computing, and Natural Sciences, Athens State University, Athens, Alabama, USA

05:40 - 06:00pm: Collaboration: Key to Student Success in Computing and other STEM Fields in Hispanic Serving Institutions
Meline Kevorkian, Greg Simco
College of Engineering and Computing, Nova Southeastern University, Fort Lauderdale, Florida, USA
07:00a - 05:00p: REGISTRATION  
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 12-ICOMP: -------> CONCURRENT SESSION WITH SESSION 16-IKE  
INTERNET COMPUTING, CLOUD COMPUTING, COMMUNICATION  
SYSTEMS, AND RELATED ISSUES  
Co-Chairs: Dr. Geoffrey Phipps* & Krishna Kambhampaty**  
* Institute for Health Metrics and Evaluation,  
    University of Washington, Seattle, Washington, USA;  
** Department of Computer Science,  
    North Dakota State University, North Dakota, USA  
August 1, 2019 (Thursday); 08:20am - 10:20am  
(LOCATION: Galleria D)

08:20 - 08:40am: Experimental Performance Evaluation of SDN-Openstack Cloud Environments  
Adam Grady, Ahyoung Lee  
Department of Computer Science, University of South Dakota, Vermillion, South Dakota, USA

08:40 - 09:00am: Host-Independent Autonomous Decision of Operations of the Redundant Traffic Reduction Node  
Michi Ishikuro, Kenji Ichijo, Akiko Narita  
Graduate School of Science and Technology,  
Hirosaki University, Hirosaki, Aomori, Japan

09:00 - 09:20am: Express Dialer  
Dwight Deugo  
The School of CS, Carleton University, Ottawa, Canada

09:20 - 09:40am: Detection & Monitoring of Tampering in Telecommunication and Utility Cable  
Patrick Mabadie, Marcel Ohanga Odhiambo  
Department of Process Control & Computer Systems,  
Faculty of Engineering & Technology, Vaal University of Technology, South Africa

09:40 - 10:00am: MARLi - Molly Alternate Realities Language interactive: A New XML Markup Language for Defining Virtual and Augmented Reality  
Ronald P. Vullo, Christopher A. Egert, Andrew Phelps  
Department of Information Sciences and Technologies,  
Rochester Institute of Technology, New York, USA;  
School of Interactive Games and Media, Rochester Institute of Technology, New York, USA;  
College of Art & Design, Rochester Institute of Technology, New York, USA

10:00 - 10:20am: An Integrated Holistic Success Model for Evaluating Smart City Initiatives  
Nurcan Alkis, Murat Tahir Caldag, Ebru Gokalp  
Technology and Knowledge Management,  
Baskent University, Ankara, Turkey

10:20 - 10:40am: BREAK
SESSION 13-FECS: --------> CONCURRENT SESSION WITH SESSION 17-ESCS
TEACHING METHODOLOGIES & STRATEGIES, ADVISING METHODS, TOOLS AND RELATED STUDIES
Chair: Dr. Hong Liu
   Assistant Professor of Computer Science,
   Indiana University, Kokomo, Indiana, USA
August 1, 2019 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria D)

10:40 - 11:00am:  Cognitive Training
Mauro Puebla-Alvarez*, Daniel Carrillo, Xiaoli Yang
Electrical & Computer Engineering, Purdue University Northwest, Hammond, Indiana, USA

11:00 - 11:20am:  An Assessment Study on the Teaching of Critical Thinking and Mathematical Proofs in a Discrete Structures Course
Hang Dinh
Department of Computer and Information Sciences, Indiana University South Bend, Indiana, USA

11:20 - 11:40am:  Investigating Team Effectiveness Using Discord: A Case Study Using a Gaming Collaboration Tool for the CS Classroom
Lisa L. Lacher, Cydnee Biehl (Presenter: Cody Gibson)
College of Science and Engineering, University of Houston - Clear Lake, Houston, Texas, USA

11:40 - 12:00pm:  The Development and Deployment of a Mobile Music Application for Literacy Enhancement (M2APPLE)
Amal Babangida, Mathias Fonkam, Abubakar Sadiq Hussaini, and Charles Nche
School of Information Technology & Computing, American University of Nigeria, Yola, Nigeria

12:00 - 12:20pm:  FREE SLOT

12:20 - 01:20pm:  LUNCH (On Your Own)
SESSION 14-ICOMP-ESCS: -------> CONCURRENT SESSION WITH SESSION 18-IKE
INTERNET OF THINGS + WEB-BASED APPLICATIONS +
DATA SCIENCE & EMBEDDED & CYBER-PHYSICAL SYSTEMS
Co-Chairs: Prof. Olaf Droegehorn * & Dr. Ihsan Ullah**
* Harz University of Applied Science, Germany;
** Sungkyunkwan University, Suwon, Korea
August 1, 2019 (Thursday); 01:20pm - 03:00pm
(LOCATION: Galleria D)

01:20 - 01:40pm: Prototyping of a Personal Outlet-enabled Individualized
Power Consumption Management System
Hideki Kondo, Kenichi Dobashi, Kazumasa Takami
Graduate School of Engineering, Soka University,
Hachioji-shi, Tokyo, Japan; Faculty of Science and
Engineering, Soka University, Tokyo, Japan

01:40 - 02:00pm: Fast Detection of Abnormal Data in IIoT with Segmented
Linear Regression
Sejun Kim, Ihsan Ullah, Taeho Lee, Hee Yong Youn
Department of Electronic, Electrical and Computer
Engineering, Sungkyunkwan University, Suwon, Korea

02:00 - 02:20pm: Independent Algal Bloom Removal System
Kenichi Arai, Ryota Nakashima, Tetsuo Imai, and
Toru Kobayashi
Graduate School of Engineering, Nagasaki University,
Nagasaki, Japan

02:20 - 02:40pm: Safety Analysis System Using Smart Helmet
Ahyoung Lee, Junyoung Moon, Se Dong Min, Nak-Jun Sung,
and Min Hong
Department of Computer Science, University of South
Dakota, Vermillion, South Dakota, USA; Department of
CS, Soonchunhyang University, Asan, Republic of Korea

02:40 - 03:00pm: Motor Controls Research on Rubik’s Cube Solver
Matt Leonard, Nick Norwood, Martin Asante, Daren Wilcox
The Southern Polytechnic College of Engineering and Engineering
Technology, Kennesaw State University, Georgia, USA

03:00 - 03:40pm: POSTER DISCUSSION SESSION C-FECS-EEE-...
August 1, 2019 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

o. Knowledge-Based Neural Net for Electronic Modelling
Louis Zhang, Q. J. Zhang
Carleton University, Ottawa, Canada

o. CASANDRA - Informatic Tool for the Insurgence of Relevant
Information in the Study of Structural Vulnerability in the
Municipality of La Florida, Narino, Colombia, in Volcanic
Events
Jurado German, Cordoba Gustavo, Hernandez Gonzalo
Universidad de Narino, Colombia

o. Using Iphone for Identifying Objects
Christopher McTague, Zizhong John Wang
Department of Mathematics and Computer Science, Virginia
Wesleyan University, Virginia Beach, Virginia, USA

o. ...
SESSION 15-EEE: E-BUSINESS, ENTERPRISE INFORMATION SYSTEMS, & TOOLS
+ E-GOVERNMENT AND OPEN GOVERNMENT

Chair: Dr. Jacques Bou Abdo
Notre Dame University, Lebanon
August 1, 2019 (Thursday); 03:40pm - 05:40pm
(LOCATION: Galleria D)

03:40 - 04:00pm: QoS for Supply Chain Cyber Management
R. William Maule
Graduate School of Operational and Information Sciences,
Naval Postgraduate School, Monterey, California, USA

04:00 - 04:20pm: Digital Adoption: The Need for Truly Inclusive e-Government Services
Samantha Papavasiliou, Carmen Reaiche, Peter Ricci
Entrepreneurship, Commercialisation and Innovation Centre,
University of Adelaide, South Australia, Australia;
Data Science, Australian Taxation Office (ATO),
South Australia, Australia

04:20 - 04:40pm: Case Study: Trouble Desk Expert System
Charles E. Knadler, Jr.
Utah Valley University, Utah, USA

04:40 - 05:00pm: Analyzing Determinants of Open Government Based Technologies and Applications Adoption in the Context of Organizations
Murat Tahir Caldag, Ebru Gokalp, Nurcan Alkis
Technology and Knowledge Management, Baskent University, Ankara, Turkey

05:00 - 05:20pm: FREE SLOT

05:20 - 05:40pm: FREE SLOT
SESSION 16-IKE: CONCURRENT SESSION WITH SESSION 12-ICOMP
DATA MINING, TEXT MINING, PATTERN MINING, MACHINE LEARNING, PREDICTION METHODS, AND APPLICATIONS
Co-Chairs: Prof. Eamon Doherty* & Dr. Charitha Hettiarachchi**
* Fairleigh Dickinson University, New Jersey, USA;
** Northwest Missouri State University, USA
August 1, 2019 (Thursday); 08:20am - 10:20am
(LOCATION: Galleria B)

08:20 - 08:40am: FREE SLOT

08:40 - 09:00am: Serendipity-Aware Noise Detection System for Recommender Systems
Miriam El Khoury Badran, Jacques Bou Abdo, Wissam Al Jurdi, Jacques Demerjian, Chady Abou Jaoude
Department of Computer Science, Notre Dame University, Zook Mosbeh, Lebanon; Department of Computer Science, Notre Dame University, Deir el Qamar, Lebanon; LARIFA-EDST Laboratory, Faculty of Science Lebanese University, Fanar, Lebanon; TICKET Lab, Faculty of Engineering, Antonine University, Baabda, Lebanon

09:00 - 09:20am: Breast Cancer Dataset Analytics
Kevin Daimi
University of Detroit Mercy, Michigan, USA

09:20 - 09:40am: Slim LSTMs
Fathi M. Salem
Department of Electrical and Computer Engineering, Circuits, Systems and Neural Networks Laboratory, University Neuroscience Program, Michigan State University, East Lansing, Michigan, USA

09:40 - 10:00am: Using Apple Store Dataset to Predict User Rating of Mobile Applications
Kevin Daimi, Noha Hazzazi
University of Detroit Mercy, Michigan, USA

10:00 - 10:20am: Developing a Methodology for the Identification of Alternative NoSQL Data Models via Observation of Relational Database Usage
Paul M. Beach, Brent T. Langhals, Michael R. Grimaila, Douglas D. Hodson, Ryan D. L. Engle
Department of Systems Engineering, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA;
Department of ECE, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, USA

10:20 - 10:40am: BREAK
SESSION 17-ESCS: FONT----> CONCURRENT SESSION WITH SESSION 13-FECS
CYBER PHYSICAL SYSTEMS, EMBEDDED SYSTEM DESIGN, AND APPLICA TIONS
Co-Chairs: Prof. Hussain Al-Asaad* & Munienge Mbodila**
* University of California at Davis, California, USA;
** Walter Sisulu University, South Africa
August 1, 2019 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria B)

10:40 - 11:00am: Performance Evaluation on the Inflight Drone Re-routing Cost Estimation Algorithm
Yunseok Chang
Department of CE, Daejin University, Korea

11:00 - 11:20am: Machine Learning Applications in Digital System Verification
Robbie Sadre, Hussain Al-Asaad
Department of Electrical and Computer Engineering,
University of California at Davis, California, USA

11:20 - 11:40am: Interactive Music Table and Embedded Microcontrollers
Bassam Shaer, Lesley Ray, Jacob McBee, Anthony Graham, and Connor Watkins
ECE Department, University of West Florida,
Fort Walton Beach, Florida, USA

11:40 - 12:00pm: Cyber Physical Systems Framework of Edge-, Fog-, and Cloud-computing
Taioun Kim
Department of Industrial & Management Engineering,
Kyungsung University, Busan, Republic of Korea

12:00 - 12:20pm: Estimate Radial Lateral Azimuth Using MEMS Inertial Measurement Unit - IMU
Tongjun Ruan, Robert Balch
Reservoir Evaluation and Advanced Computational Technologies Group Of Petroleum Recovery Research Center,
New Mexico Tech., Socorro, New Mexico, USA

12:20 - 01:00pm: LUNCH (On Your Own)
SESSION 18-IKE: --------> CONCURRENT SESSION WITH SESSION 14-ICOMP
DATA SCIENCE AND APPLICATIONS + MIS AND DATABASES +
INFORMATION & KNOWLEDGE EXTRACTION & ENGINEERING
Co-Chairs: Dr. Ryan D. L. Engle* & Dr. Haiyi Zhang**
  * Air Force Institute of Technology, USA;
  ** Computer Science Department,
    Acadia University, Wolfville, Canada
August 1, 2019 (Thursday); 01:00pm - 03:00pm
(LOCATION: Galleria B)

01:00 - 01:20pm:  FREE SLOT

01:20 - 01:40pm:  Improving The Quality Of Homeless Dataset
      Ting Liu, Keith Grable
      Computer Science Department, Siena College, Loudonville, New York, USA

01:40 - 02:00pm:  Using Computer Vision to Identify Potential Mismatches Prior to Product Being Packed in Retail Industry
      Gurpreet Singh Bawa
      Accenture Company

02:00 - 02:20pm:  A New Bid Process Information System based on Data Warehouse Specification for Decision-making
      Manel Zekri, Sahbi Zahaf, Sadok Ben Yahia
      Department of Computer Science, Faculty of Sciences of Tunis, University of Tunis El Manar, Tunisia;
      Department of Computer Science, Higher Institute of Computer Science, Tunisia

02:20 - 02:40pm:  Content Based Segmentation of News Articles using Feature Similarity based K Nearest Neighbor
      Taeho Jo
      School of Game, Hongik University, Sejong, South Korea

02:40 - 03:00pm:  Video Action Recognition Performance and Amelioration of HMM-PSO on Large Data Set
      Haiyi Zhang, Hansheng Zhang
      CS Department, Acadia University, Wolfville, NS, Canada

03:00 - 03:40pm:  POSTER DISCUSSION SESSION C-FECS-EEE-...
August 1, 2019 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

  o. Knowledge-Based Neural Net for Electronic Modelling
     Louis Zhang, Q. J. Zhang
     Carleton University, Ottawa, Canada
  o. CASANDRA - Informatic Tool for the Insurgence of Relevant Information in the Study of Structural Vulnerability in the Municipality of La Florida, Narino, Colombia, in Volcanic Events
     Jurado German, Cordoba Gustavo, Hernandez Gonzalo
     Universidad de Narino, Colombia
  o. Using Iphone for Identifying Objects
     Christopher McTague, Zizhong John Wang
     Department of Mathematics and Computer Science, Virginia Wesleyan University, Virginia Beach, Virginia, USA
  o. ...

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(LOCATION: Galleria B)

03:40 - 04:00pm: FREE SLOT

04:00 - 04:20pm: FREE SLOT

04:20 - 04:40pm: FREE SLOT

04:40 - 05:00pm: FREE SLOT

05:00 - 05:20pm: FREE SLOT

05:20 - 05:40pm: FREE SLOT
SAM'19 and ICWN'19 conferences have significant topical overlap. The Steering Committee, in consultation with the program committees, decided to merge the presentation schedules of these two conferences into one comprehensive program to facilitate increased opportunities for cross-fertilization across these research topics. Therefore, the conference attendees, speakers, and participants should be mindful of the fact that there are a number of Concurrent sessions in this comprehensive schedule. Papers associated with presentations in SAM research tracks are evaluated by SAM Program Committee and Papers associated with presentations in ICWN research tracks are evaluated by ICWN Program Committee.

SAM'19: The 2019 International Conference on Security and Management

ICWN'19: The 2019 International Conference on Wireless Networks

In addition, there are a number of other sessions (not listed as part SAM’19 and ICWN’19) that are of potential interest (sessions belonging to other joint conferences). Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in HIMS (Health Informatics), ICDATA (Data Science), ICAl (Artificial Intelligence), BIOCOMP (Computational Biology), EEE (e-Learning, e-Business, e-Government), FECS (CS & CE Education), ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering), IPCV (Computer Vision), and PDPTA (Parallel & Distributed Processing) conferences discuss topics that are within the scope of SAM and ICWN; these have been scheduled so that many attendees can also participate in them.

Each conference is divided into a number of topical sessions. These sessions are not necessarily scheduled in the same room/location. Therefore, conference attendees are to check the location of the tracks they wish to attend; The conference room numbers (locations) appear in this document.

July 28

03:00p - 07:00p: REGISTRATION
(LLOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)
07:00a - 05:00p:  REGISTRATION  
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:30 - 09:00am:  CONGRESS WELCOME REMARKS - July 29, Monday:  
Prof. Hamid R. Arabnia (Chair, Steering Committee & Coordinator), Department of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC).  
(LOCATION: Galleria B-C)

09:00 - 10:00am:  KEYNOTE LECTURE - July 29, Monday:  
INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING  
Prof. Diego Galar  
Professor of Lulea University of Technology, Sweden;  
Head of Maintenance & Reliability, Tecnalia, Spain;  
Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe.  
(LOCATION: Galleria B-C)

10:00 - 10:15am:  INITIATIVES & PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY RESEARCHERS & PHD STUDENTS IN AFRICA & MOST DEVELOPING COUNTRIES  
Nnenna Christine Martin  
ResearchLink International Inc., North Carolina, USA  
(LOCATION: Galleria B-C)

10:20 - 10:40am:  BREAK
SESSION 1-SAM: SECURITY MANAGEMENT + SECURITY APPLICATIONS
Chair: Professor Shengli Yuan, University of Houston-Downtown, USA
July 29, 2019 (Monday); 10:40am - 12:40pm
(LOCATION: Galleria A)

10:40 - 11:00am: Towards a Method for Examining the Effects of Cognitive Load on the Performance of Cyber First Responders
Craig Speelman, Craig Valli, Oliver Guidetti
Edith Cowan University, Australia

11:00 - 11:20am: Survey of Recent Trends in Anti-Phishing Methodologies and Phishing Detection Algorithms
Beatrice M. Cerda, Shengli Yuan
University of Houston - Downtown, Texas, USA

Karen Lu, Asad Ali, Benoît Famechon, Najam Siddiqui
Gemalto Inc., USA

11:40 - 12:00pm: Shilling Attacks and their Detection Algorithms in Recommender Systems
Miriam El Khoury Badran, Wissam Jurdi, Jacques Bou Abdo*
Notre Dame University, Deir El Qamar, Lebanon

12:00 - 12:20pm: Semantic Knowledge Architecture for Cyber Security
Carla Sayan, Salim Hariri
The University of Arizona, Tucson, Arizona, USA

12:20 - 12:40pm: Context-Based Blockchain Platform Definition and Analysis Methodology: Results from the Application in the BlockIoT Project
Emilio Tissato Nakamura, Sergio Luis Ribeiro*
Fundacao CPqD, Campinas, Brazil

12:40 - 01:20pm: LUNCH (On Your Own)

SESSION 2-SAM: KEYNOTE SPEECH:
CYBER SECURITY - PRIVACY: ARE WE ALL LIVING IN GLASS HOUSES? CAN I GET SOME PRIVACY, PLEASE?
Keynote Speaker: Professor Levent Ertaul, California State University, East Bay, California, USA
July 29, 2019 (Monday); 01:30pm - 03:00pm
(LOCATION: Galleria A)

03:00 - 03:40pm: POSTER DISCUSSION SESSION A-SAM-ICWN
July 29, 2019 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

o. A Protocol for Service to Service Authentication using Token Challenge Response
Hiresha Kewalramani, Nader Nassar
Pace University, New York, USA

o. ...
SESSION 3-SAM: SECURITY EDUCATION
Chairs: Professor Levent Ertaul, California State University East Bay, California, USA and Dr. Narasimha Rao Vajjhala, American University of Nigeria, Nigeria
July 29, 2019 (Monday); 03:40pm - 05:00pm
(LOCATION: Galleria A)

03:40 - 04:00pm: That's How I Feel: A Study of User's Security Mental Model
Tahani Albalawi*, Kambiz Ghazinour, Austin Melton
Department of Computer Science, Kent State University, Kent, Ohio, USA

04:00 - 04:20pm: Protecting the Unmanned Aerial Vehicle from Cyberattacks
Jesus Nunez, Vincent Tran, Ajay Katangur*
California State University Dominguez Hills, California, USA; Missouri State University, Missouri, USA

04:20 - 04:40pm: Security Lessons from Building a Back-End Service for Data Collection
Halmon Lui, Chen-Hsiang Yu
Wentworth Institute of Technology, Boston, Massachusetts, USA

04:40 - 05:00pm: Design and FPGA Implementation of One-Time-Key Cipher System DNA Based
Hanady H. Issa, Amani Salah Elewa, Nabil Hamdy Shaker, Khaled A. Hehata
Arab Academy for Science and Technology, Egypt; Maritime Transport; Misr International University, Egypt

07:30 - 10:30pm: CONFERENCE RECEPTION DINNER / SOCIAL
July 29 - Monday; 07:30pm
(LOCATION: Egyptian Ballroom)
SESSION 4-SAM: SECURITY MANAGEMENT + COMPUTER SECURITY
Chair: Professor Stefan Pickl, University of the Federal Armed Forces Munich, Germany
July 30, 2019 (Tuesday); 08:20am - 10:20am
(LOCATION: Galleria A)

08:20 - 08:40am: Toward a Quantum Resistant SecretMatchTM Privacy Enhanced Technology - A Case Study
Dwight Horne*, Suku Nair
AT&T Center for Virtualization at SMU, Southern Methodist University, Dallas, Texas, USA

08:40 - 09:00am: Smart Voting Keys to e-Democracy
Andrew Wolfe, Arnold J. Sze, Yared Beyene
University of Washington, Tacoma, Washington, USA

09:00 - 09:20am: VKE: A Visual Analytics Tool for Cyber Security Data
Antonio Gonzalez-Torres, Vetria L. Byrd, Paul Parsons
ULACIT, Costa Rica; Purdue University, Indiana, USA

09:20 - 09:40am: Identity Management using Blockchain
Gokay Saldamli, Sohil Sanjay Mehta, Pranjali Sanjay Raje,
Madhuri Shiva Kumar, Sumedh Sunil Deshpande
San Jose State University, California, USA

09:40 - 10:00am: Increasing the Robustness of Deep Learning with Colored Noise Augmentation
Jules Chenou, George Hsieh, Tonya L. Fields
Computer Science, Norfolk State University, Norfolk, Virginia, USA

10:00 - 10:20am: Novel Extended Federated Authentication and Authorization Framework
Edward Rajah, Mathias Fonkam, Narasimha Rao Vajjhala
American University of Nigeria, Nigeria

10:20 - 10:40am: BREAK
SESSION 1-ICWN: WIRELESS NETWORKS, MOBILITY, SENSOR NETWORKS, AND APPLICATIONS
Chair: Dr. Xiang Cao
Assistant Prof., School of Computing and Information Systems, Grand Valley State University, Michigan, USA
July 30, 2019 (Tuesday); 10:40am - 12:20pm
(LOCATION: Galleria A)

10:40 - 11:00am: An Emergency Vehicle Navigation Algorithm Based on Subgraphs
Abdelfatah A. Tamimi, Ayman M. Abdalla, Hanaa’ M. Abu-Ryash
Faculty of Science and Information Technology, Al-Zaytoonah University of Jordan, Amman, Jordan

11:00 - 11:20am: A New Approach to Circle Formation in Multi-Agent Systems
R. Yang, A. Azadmanesh, H. Farhat
Computer Science, University of Nebraska, Omaha, USA

11:20 - 11:40am: Using the MIT Coffee Can Radar to Detect Moving Objects Inside a Treeline
Steven Franzkowiak, Alexander Borders, Beruke Abera, Chris Baker, Daren Wilcox
Kennesaw State University, Marietta, Georgia, USA

11:40 - 12:00pm: Cooperative Location Acquisition for Mobile Wireless Nodes by Local Measurement of Migration Distance and Remote Measurement of Observation Directions
Masaaki Namekata, Hiroaki Higaki
Department of Robotics and Mechatronics, Tokyo Denki University, Adachi, Tokyo, Japan

12:00 - 12:20pm: Developing a Mobile Application for Locating Books Inside a Library Using Open-Source or Free Tools
Sneha Pantam, Tong Lai Yu
School of Computer Science and Engineering, California State University at San Bernardino, California, USA

12:20 - 01:20pm: LUNCH (On Your Own)

SESSION 5-SAM: KEYNOTE SPEECH:
PRESCRIPTIVE ANALYTICS IN INFRASTRUCTURE SECURITY: FROM REHSTRAIN TO THE ERA OF QUANTUM ADVANTAGE
Keynote Speaker: Dr. Maximilian Moll, University of the Federal Armed Forces Munich, Germany
July 30, 2019 (Tuesday); 01:30pm - 03:00pm
(LOCATION: Galleria A)

03:00 - 03:40pm: POSTER DISCUSSION SESSION B-SAM-ICWN
July 30, 2019 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

o. ...
SESSION 6-SAM: INFORMATION ASSURANCE + BIOMETRICS + CYBER SECURITY
Chair: Katia Mayfield, Athens State University, USA
July 30, 2019 (Tuesday); 03:40am - 06:00pm
(LOCATION: Galleria A)

03:40 - 04:00pm: Probabilistic Classification for Industrial Cyber Risk Using Deep Neural Network
Xichen Zhang, Arash Habibi Lashkari, Nasim Maleki, Joseph F. Mudge, Ali A. Ghorbani
Canadian Institute for Cybersecurity, University of New Brunswick, Canada; The Co-operators General Insurance Company, Canada

04:00 - 04:20pm: Vehicle Routing Optimization for Humanitarian Logistics in Disaster Recovery: A Survey
Wadi Khalid Anuar, Maximilian Moll, Lai Soon Lee, Stefan Pickl, Hsin-Vonn Seow
University Utara Malaysia, Malaysia; University Putra Malaysia, Malaysia; University of Nottingham Malaysia, Malaysia; Universität der Bundeswehr München, Germany

04:20 - 04:40pm: Component Selection Process in Assembling Cyberattack Simulation Models
K. Mayfield*, M. Petty, T. Whitaker, A. Cantrell, S. Hice, J. McClendon, P. Reyes
Department of Mathematical, Computing, and Natural Sciences, Athens State University, Alabama, USA; Department of Computer Science, The University of Alabama in Huntsville, Alabama, USA; College of Computing and Technology, Lipscomb University, Nashville, Tennessee, USA

04:40 - 05:00pm: Feature-level Data Fusion for Biometric Mobile Applications: A Case Study
Sorin Soviany, Cristina Soviany, Sorin Puscoci
I.N.S.C.C., Romania; Features Analytics, Belgium

05:00 - 05:20pm: Attribute Stream-Based Access Control (ASBAC) - Functional Architecture and Patterns
Dominic Heutelbeck
Forschungsinstitut für Telekommunikation und Kooperation, Germany

05:20 - 05:40pm: A Survey of Layered Approach to Threats and Countermeasures
Dina S. Bujud, Ahmed S. AlGhamdi, Malik Najmus Saqib
Department of Information Technology, Marymount University, Arlington, Virginia, USA; College of Computer Science and Engineering, University of Jeddah, Saudi Arabia

05:40 - 06:00pm: Impact of Cyber Security Mechanisms on Employees' Behavior
Yasser M. Hausawi
Institute of Public Administration, Information Technology Department, Jeddah Branch, Saudi Arabia
07:00a - 05:00p: REGISTRATION  
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 7-SAM: CRYPTOGRAPHIC TECHNOLOGIES I  
Chair: Dr. Jacques Bou Abdo  
Notre Dame University, Lebanon  
July 31, 2019 (Wednesday); 08:20am - 10:20am  
(LOCATION: Galleria A)

08:20 - 08:40am: A Generic Mobile Application for Network Security Testbeds  
Medha Pujari, Jhaghapratha Narayanamoorthy, Weiqing Sun*,  
Farha Jahan, Bill McCreary, Quamar Niyaz,  
Vijaya K. Devabhaktuni  
University of Toledo, Toledo, Ohio, USA;  
Purdue University Northwest, Indiana, USA

08:40 - 09:00am: An Efficient Private Matching and Set Intersection Protocol: Implementation PM-Malicious Server  
G. Saldamli, L. Ertaul, K. Dholakia, U. Sanikommu  
San Jose State University, California, USA;  
California State University, East Bay, California, USA

09:00 - 09:20am: Formalization of Security Requirements and Attack Models for Cryptographic Hash Functions in ProVerif  
Togo Yoshimura, Kenichi Arai, Hiroyuki Okazaki, Yuichi Futa  
Shinshu University, Japan;  
Nagasaki University, Japan;  
Tokyo University of Technology, Japan

09:20 - 09:40am: Chaining JSON Blocks for Secure Transmission of Mobile Data Block Sequences  
John Yoon  
Mercy College, New York, USA

09:40 - 10:00am: Blockchain Based IoT Node Authentication in WSNs  
Sunghyuck Hong  
Division of ICT, Baekseok University, Republic of Korea

10:00 - 10:20am: Algorithm for a Time Efficient Calculation of the Statistical Distribution of Primes  
Aykan Inan  
University of Applied Sciences Ravensburg-Weingarten, Germany

10:20 - 10:40pm: BREAK
SESSION 2-ICWN: COMMUNICATION SYSTEMS, SECURITY ISSUES, MOBILE SYSTEMS & NOVEL APPLICATIONS
Co-Chairs: Stephen P. Reichhart* & Prof. Olaf Droegerhorn**
  * US Air Force Research Laboratory, AFRL/RITF, Rome, New York, USA;
  ** Harz University of Applied Science, Germany
July 31, 2019 (Wednesday); 10:40am - 12:20pm
(LOCATION: Galleria A)

10:40 - 11:00am: Correction of a Single Error Bit of the (47, 24, 11) Quadratic Residue Code for Low-delay Distributed Source Coding using a Modified Dorsch Decoder
Saeed Eleruja, Marcel Ambroze, Martin Tomlinson, Mohammed Zaki
School of Computing, Electronics and Mathematics, Plymouth University, United Kingdom, UK

11:00 - 11:20am: IoT Security: Authenticated Lightweight Key Exchange (ALIKE)
Levent Ertaul, Peter Chudinov, Brian Morales
California State University, East Bay, California, USA

11:20 - 11:40am: Networking Improvements using Electronically Steerable Directional Antennas
Stephen Reichhart, Joseph Suprenant, Elizabeth Serena Bentley, and Peter Ricci
Air Force Research Laboratory, Information Directorate, Rome, New York, USA

11:40 - 12:00pm: A Grouping Method and a Genetic Algorithm for Discovering Regular Plans in Wireless Mobile Environment
John Tsiligaridis
Mathematics and Computer Science, Heritage University, Washington, USA

12:00 - 12:20pm: Privacy-preserving Contacts Compare for Social Networks
Gokay Saldamli, Levent Ertaul, Mayur Gala
San Jose State University, San Jose, California, USA;
California State University, East Bay, California, USA

12:20 - 01:20pm: LUNCH (On Your Own)

SESSION 8-SAM: KEYNOTE SPEECH:
IRIS INTELLIGENT REACH BACK INFORMATION SYSTEMS: FROM REHSTRAIN to SANCTUM - A NEW SECURITY ARCHITECTURE
Keynote Speaker: Professor Stefan Wolfgang Pickl, Board Member, German Committee for Disaster Reduction (DOKKV); Chair, Operations Research and Director of the Core Competence Center for Operations Research (COMTESSA)
July 31, 2019 (Wednesday); 01:20am - 03:00pm
(LOCATION: Galleria A)
03:00 - 03:40pm: POSTER DISCUSSION SESSION C-SAM-ICWN
July 31, 2019 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

o. Adaptive Receiver for Uplink Massive MU-MIMO Systems
Bangwon Seo, Seung-Mook Baek, Geun Bum Koo, Byunggyu Yu,
Bong Seok Park, Chang-Ho Hyun
Division of Electrical, Electronics and Control Engineering, Kongju National University, South Korea

o. Optimal Hello Packet Interval Determination in Wireless Networks
Joseph Suprenant, Stephen Reichhart, Elizabeth Serena Bentley
Air Force Research Laboratory, Information Directorate, Rome, New York, USA

SESSION 9-SAM: COMPUTER SECURITY + SECURITY APPLICATIONS
Chair: Dr. Krishna Kambhampaty, North Dakota State University, North Dakota, USA
July 31, 2019 (Tuesday); 03:40am - 06:00pm
(LOCATION: Galleria A)

03:40 - 04:00pm: Android-App-Dissection on the Wandboard - Evolving the Platform Into an One-Button-Solution
Heiner Winkler, Christopher Lenk, Philipp Engler,
Dirk Pawlaszczyk, Christian Hummert
Computer Engineering / Digital Forensics Group, Hochschule Mittweida - University of Applied Sciences, Mittweida, Germany; ZITiS - Central Office for Information Technology in the Security Sphere, Munich, Germany

04:00 - 04:20pm: Cross-Platform Malware: Study of the Forthcoming Hazard Adaptation and Behavior
Bassam Zahran*, Stacy Nicholson, Aisha Ali-Gombe
CIS Department, Towson University, Maryland, USA

04:20 - 04:40pm: GPU-Accelerated Randomized Newton Method for Fast Training Malicious Web Site Classifier
Yuechao Lu*, Boqi Gao, Fumihiko Ino
Graduate School of Information Science and Technology, Osaka University, Japan

04:40 - 05:00pm: A Novel Approach to Identify Confidential Data in Data Leakage Prevention Systems
Wei-Zi Wu, Bo-Chao Cheng*
Department of Communications Engineering, National Chung-Cheng University, Taiwan

05:00 - 05:20pm: Fundamental Defensive Programming Practices with Secure Coding Modules
Jeong Yang*, Akhtar Lodgher
Computing and Cyber Security, Texas A&M University, San Antonio, Texas, USA

05:20 - 05:40pm: Identifying Insider and Masquerade attackers in Cloud Computing and IoT Devices
Krishna Kambhampaty, Kendall E. Nygard*
Department of Computer Science, North Dakota State University, North Dakota, USA

05:40 - 06:00pm: FREE SLOT
07:00a - 05:00p:  REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 10-SAM-ICWN: WIRELESS NETWORKS + COMMUNICATION METHODS + CRYPTOGRAPHIC TECHNOLOGIES
Chairs: TBA
August 1, 2019 (Thursday); 08:20am - 10:20am
(LOCATION: Galleria A)

08:20 - 08:40am:  FREE SLOT

08:40 - 09:00am:  FREE SLOT

09:00 - 09:20am:  Effect of Companding Techniques to Enhance the Performance of SC-FDMA Systems
Sara Mahmoud Farid, Hesham Elbadawy, Khaled Shehata
Faculty of Engineering, Modern Academy for Engineering and Technology, Cairo, Egypt; Faculty of Engineering, Arab Academy of Science and Technology, Cairo, Egypt

09:20 - 09:40am:  Dynamic Sink Relocation with Fuzzy Logic for Wireless Sensor Network
Taeho Lee, Minwoo Kim, Yili Wang, Hee Yong Youn
Department of Electronic, Electrical & Computer Engineering, Sungkyunkwan University, Suwon, Korea

09:40 - 10:00am:  Towards a Development of an Enhanced Security Model in Data Transmission Using Power Lines Communication Networks in Rural South Africa
Munienie Mbodila, Mavhungu Phulufhedzani
Department of Information Systems Technology, Walter Sisulu University, Queenstown Campus, South Africa; Department of Computer Science and Information Systems, University of Venda, Thohoyandou, South Africa

10:00 - 10:20am:  On the Design Approaches of the S-Box in AES Cryptosystem: A Review and Performance Comparison
Mostafa Abd-El-Barr
Department of Information Science, College of Computing Sciences & Engineering, Kuwait University, Kuwait

10:20 - 10:40am:  BREAK

10:40a - 03:00p:  During this period, SAM and ICWN attendees are encouraged to participate in sessions belonging to ICAI (Artificial Intelligence), EEE (e-Learning, e-Business, e-Government), ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering), CSC (Scientific Computing), and ESCS (Cyber-Physical Systems). These sessions discuss topics that may be of interest to SAM and ICWN attendees.
03:00 - 03:40pm: POSTER DISCUSSION SESSION D-SAM-ICWN
August 1, 2019 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

o. A Study of Energetic sustainability of Routing Protocols in Mobile Ad Hoc Networks (MANETs)
Nahid Ebrahimi Majd, Thu Nguyen, Nam Ho, Jacob Stolmeier
Department of Computer Science and Information Systems,
California State University San Marcos, California, USA

03:40 - 05:20pm: During this period, SAM and ICWN attendees are encouraged to participate in sessions belonging to ICAI (Artificial Intelligence), EEE (e-Learning, e-Business, e-Government), ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering), CSC (Scientific Computing), and ESCS (Cyber-Physical Systems). These sessions discuss topics that may be of interest to SAM and ICWN attendees.
ICDATA'19
CONFERENCE SCHEDULE

The 2019 International Conference on Data Science (ICDATA'19)

There are a number of other sessions (not listed as part of ICDATA'19 Conference) that are of potential interest to ICDATA'19 participants (sessions belonging to other joint conferences.) Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in ACC (Cognitive Computing), BIOCOMP (Bioinfo.), EEE (e-Learning, e-Business, e-Government), ESCS (Embedded & Cyber-physical Systems), FECS (Education), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICOMP (Internet Computing & IoT), IKE (Information & Knowledge Eng.), IPCV (Computer Vision), PDPTA (Parallel & Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of ICDATA'19; these have been scheduled so that selected ICDATA'19 attendees can also participate in them.

Each conference is divided into a number of topical sessions. These sessions are not necessarily scheduled in the same room/location. Therefore, conference attendees are to check the location of the tracks they wish to attend; The conference room numbers (locations) appear in this document.

July 28

03:00p - 07:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)
07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:30 - 09:00am: CONGRESS WELCOME REMARKS - July 29, Monday:
Prof. Hamid R. Arabnia (Chair, Steering Committee & Coordinator), Department of Computer Science, University of Georgia, USA; Editor-in-Chief, The Journal of Supercomputing (Springer); Fellow, Center of Excellence in Terrorism, Resilience, Intelligence & Organized Crime Research (CENTRIC).
(LOCATION: Galleria B-C)

09:00 - 10:00am: KEYNOTE LECTURE - July 29, Monday:
INDUSTRIAL ARTIFICIAL INTELLIGENCE - THE DRIVING FORCE OF MANUFACTURING
Prof. Diego Galar
Professor of Lulea University of Technology, Sweden; Head of Maintenance & Reliability, Tecnalia, Spain; Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe.
(LOCATION: Galleria B-C)

10:00 - 10:15am: INITIATIVES & PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY RESEARCHERS & PhD STUDENTS IN AFRICA & MOST DEVELOPING COUNTRIES
Nnenna Christine Martin
ResearchLink International Inc., North Carolina, USA
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

10:40 - 11:00am: ICDATA'19 OPENING REMARKS
Dr. Robert Stahlbock
General Chair ICDATA’19
University of Hamburg, Germany

11:00a - 12:20p: INVITED TALK:
DATA SCIENCE: AN INTERDISCIPLINARY PERSPECTIVE
Speaker: Dr. Peter Geczy
National Institute of Advanced Industrial Science and Technology (AIST), Japan
(LOCATION: Galleria B)

12:20 - 01:20pm: LUNCH (On Your Own)
SESSION 1-ICDATA: SPECIAL SESSION ON REAL-WORLD DATA MINING APPLICATIONS, CHALLENGES, AND PERSPECTIVES (Part I)
Chairs: Dr. Mahmoud Abou-Nasr*, Dr. Robert Stahlbock**, and Dr. Gary M. Weiss***
* Adjunct Faculty at the University of Michigan Dearborn, USA;
** University of Hamburg, Germany;
***Fordham University, New York, USA;
July 29, 2019 (Monday); 01:20pm - 03:00pm
(LOCATION: Galleria B)

01:20 - 01:40pm: Ensemble Learning for Predicting Multiple Sclerosis Disease Course
Yijun Zhao, Tanuja Chitnis, Tung Doan
Fordham University, Bronx, New York, USA

01:40 - 02:00pm: Deep Convolutional Autoencoder for Recovering Defocused License Plates and Smudged Fingerprints
Yijun Zhao*, Stephen Lebak
Fordham University, New York, USA

02:00 - 02:20pm: Analysis Framework to Investigate Power-Failure Events and Their Causes
Vivian Sultan, Brian Hilton
Claremont Graduate University, USA

02:20 - 02:40pm: Optimal Route Planning for Probabilistic Landscape Exploration
Ming Tony Shing*, Kwok Yee Michael Wong
Hong Kong University of Science & Technology, Hong Kong

02:40 - 03:00pm: On Data Fusion Methodologies for Spontaneous and Solicited Safety Data Evaluation
Hal Li*, William Wang
Merck Research Laboratories, USA

03:00 - 03:40pm: POSTER DISCUSSION SESSION A-ICDATA
July 29, 2019 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

  o. Apply Machine Learning to Detect and Diagnose Fault in Multi-Array PV Plants
     Chung-Chian Hsu*, Jai-Long Li, Arthur Chang, Yu-Sheng Chen
     Big Data Research Center, National Yunlin University of Science and Technology, Yunlin, Taiwan;
     Reforecast Co., Ltd, Yunlin, Taiwan
  o. Prediction of Asset Price using News Corpus Data in a Time Series Analysis
     Arka Chakraborty
     University of Virginia, Charlottesville, Virginia, USA
  o. A Computer Model to Study Users’ Information Behavior
     Paulo Hideo Ohtoshi*, Claudio Gottschalg-Duque
     University of Brasilia, Brazil
  o. A Case Study using NYC Bike Share Data
     Arun Anpalagan, Isaac Woungang
     Western University, London, Ontario, Canada
03:40 - 05:40pm: TUTORIAL
PREDICTING WITH CONFIDENCE - CONFORMAL PREDICTION AND VENN PREDICTORS
Speaker: Dr. Ulf Johansson
Department of Computer Science and Informatics,
Jonkoping University, Sweden
(LOCATION: Galleria B)

07:30 - 10:30pm: CONFERENCE RECEPTION DINNER / SOCIAL
July 29 - Monday; 07:30pm
(LOCATION: Egyptian Ballroom)
SESSION 2-ICDATA: CLUSTERING, ASSOCIATION + WEB / TEXT / MULTIMEDIA MINING

Chairs: Dr. Diego Galar*, Dr. Peter Geczy**, Dr. Robert Stahlbock***, Dr. Gary M. Weiss****
*   Lulea University of Technology, Sweden;
**  National Institute of Advanced Industrial
Science and Technology (AIST), Japan
*** University of Hamburg, Germany;
****Fordham University, New York, USA

July 30, 2019 (Tuesday); 08:20am - 10:20am
(LOCATION: Galleria B)

08:20 - 08:40am: Consistency Constraints for Overlapping Data Clustering
Peter Still*, Jared Culbertson, Dan Guralnk, Jakob Hansen
Texas A&M University, College Station, Texas, USA

08:40 - 09:00am: The Sequence Prediction Model of Latent Variable
Conditional Random Fields
Jimmy Ming-Tai Wu, Jerry Chun-Wei Lin, Yinan Shao, and
Matin Pirouz
Shandong University of Science and Technology, China

09:00 - 09:20am: A Neural-Encoded Mention-Hypergraph Model for Mention
Recognition
Jerry Chun-Wei Lin, Jimmy Ming-Tai Wu, Yinan Shao, and
Matin Pirouz
Western Norway University of Applied Sciences, Norway

09:20 - 09:40am: Twitter Streaming API Data Collection for Infrequent
Keywords
Traian Marius Truta, Alina Campan, Parker Kain,
Tobel Atnafu, Joseph Nolan, Alyssa Appelman
Northern Kentucky University, USA

09:40 - 10:00am: Graph Based Version for Clustering Texts in Current Affair
Domain
Taeho Jo
School of Game, Hongik University, Korea

10:00 - 10:20am: Data Quality Assessment and Problem Severity Assessment
for Data Cleaning
Hong Liu*, Jongyeop Kim
Indiana University, USA

10:20 - 10:40am: BREAK
SESSION 3-ICDATA: CLASSIFICATION (Part I)
Chairs: Dr. Robert Stahlbock* and Dr. Gary M. Weiss**
* University of Hamburg, Germany;
**Fordham University, New York, USA
July 30, 2019 (Tuesday); 10:40am - 12:20pm
(LOCATION: Galleria B)

10:40 - 11:00am: Application of Artificial Neural Network on Speech Signal Features for Parkinson’s Disease Classification
John Wu*, Xin Ye, Shaun-Inn Wu
California State University San Marcos, California, USA

11:00 - 11:20am: Fine-Tuning Naive Bayes for Imbalanced Datasets
Fahad Alenezi*, Khalil El Hindi, Basil AsSadhan
King Saud University, SA

11:20 - 11:40am: Identifying Classification Algorithms Most Suitable for Imbalanced Data
Ray Tischio*, Gary Weiss
Fordham University, Bronx, New York, USA

11:40 - 12:00pm: A Random Under-sampled Deep Architecture with Medical Event Embedding: Highly Imbalanced Rare Disease Classification with EHR Data
Yan Hu*, Feng Chen, Yong Cai, Yilian Yuan
State University of New York at Albany, New York, USA

12:00 - 12:20pm: Analysis of Binary Classification Metrics Using Empirical Distributions of Prediction Scores
Andrei Chtcheprov, Srinivas Krovvidy, Hernando Vera
Fannie Mae, Reston, Virginia, USA

12:20 - 01:20pm: LUNCH (On Your Own)

SESSION 4-ICDATA: CLASSIFICATION (Part II) + DATA SCIENCE
Chairs: Dr. Robert Stahlbock* and Dr. Gary M. Weiss**
* University of Hamburg, Germany;
**Fordham University, New York, USA
July 30, 2019 (Tuesday); 01:20pm - 03:00pm
(LOCATION: Galleria B)

01:20 - 01:40pm: Parameter Optimization of RBF Kernel SVM from miniCV
Li-Chia Yeh*, Chung-Chin Lu
National Tsing Hua University, Taiwan

01:40 - 02:00pm: A Prediction Model for Backpack Programs
Derrick Black, Liping Liu, Seongtae Kim, Lauren Davis
North Carolina A&T State University, North Carolina, USA

02:00 - 02:20pm: Predictive Modeling of Unbalanced Binary Outcome in Food Insecurity Data
Seong-Tae Kim*, Lauren Davis, Jonathan Fabish
North Carolina A&T State University, North Carolina, USA

02:20 - 02:40pm: Feature Extraction through Deepwalk on Weighted Graph
Jayesh Soni, Nagarajan Prabakar, Himanshu Upadhyay
Florida International University, Florida, USA

02:40 - 03:00pm: Cloud Based Big Data Infrastructure Platforms and Tools for Data Analytics in the Data Science Curriculum
Yuri Demchenko*, Oleg Chertov
University of Amsterdam, Netherlands
03:00 - 03:40pm: POSTER DISCUSSION SESSION B-ICDATA
July 30, 2018 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

03:40 - 05:40pm: TUTORIAL
DEVELOPING DATA SCIENCE & ANALYTICS RELATED COMPETENCES & PROFESSIONAL SKILLS: PRACTICAL RECOMMENDATIONS TO DATA SCIENCE JOB SEEKERS, EDUCATOR & TEAM MANAGERS
Speaker: Dr. Yuri Demchenko
University of Amsterdam, The Netherlands
(LOCATION: Galleria B)

05:40 - 06:00pm: BREAK

06:00 - 08:00pm: TUTORIAL
WHAT'S YOURS IS MINE: HOW MODERN ATTACKERS ARE STEALING YOUR DATA
Speaker: Andrew Johnston
Mandiant (Consultant)
(LOCATION: Galleria B)
SESSION 5-ICDATA: SPECIAL SESSION ON REAL-WORLD DATA MINING APPLICATIONS, CHALLENGES, AND PERSPECTIVES (Part II)
Chairs: Dr. Mahmoud Abou-Nasr*, Dr. Robert Stahlbock**, and Dr. Gary M. Weiss***
* Adjunct Faculty at the University of Michigan Dearborn, Michigan, USA;
** University of Hamburg, Germany;
***Fordham University, New York, USA
July 31, 2019 (Wednesday); 08:20am - 10:20am
(LOCATION: Galleria B)

08:20 - 08:40am: Statistical Assessment of Physicochemical Properties of Protein Tertiary Structure
Deok Hee Nam
Engineering and Computing Science, Wilberforce University, Wilberforce, Ohio, USA

08:40 - 09:00am: A Competing Values Approach to Business Intelligence
Jonathan Fowler
Colorado Technical University, Colorado, USA

09:00 - 09:20am: Patterns of Human Mobility
Shijun Tang*, Sihai Tang
Department of Science and Mathematics, Alvernia University, Reading, PA, USA;
Department of Computer Science and Engineering, University of North Texas, Denton, Texas, USA

09:20 - 09:40am: Which Grid Infrastructure Needs Utilities' Immediate Attention to Reduce the Risk of Power Outages?
Vivian Sultan
Claremont Graduate University, USA

09:40 - 10:00am: Measuring the Impact of Integrated Delivery Networks on Physicians. Prescribing Preference
Wenzhe Lu, Yong Cai
IQVIA, Pennsylvania, USA

10:00 - 10:20am: FREE SLOT

10:20 - 10:40am: BREAK
SESSION 6-ICDATA: SPECIAL SESSION ON REAL-WORLD DATA MINING APPLICATIONS, CHALLENGES, AND PERSPECTIVES (Part III)

Chairs: Dr. Mahmoud Abou-Nasr*, Dr. Robert Stahlbock**, and Dr. Gary M. Weiss***
* Adjunct Faculty at the University of Michigan Dearborn, Michigan, USA;
** University of Hamburg, Germany;
***Fordham University, New York, USA

July 31, 2019 (Wednesday); 10:40am - 12:20pm
(LOCATION: Galleria B)

Chien-Heng Wu*, Yu-Feng Chung, Wen-Yi Chang, and Whey-Fone Tsai
National Center For High-Performance Computing, Taiwan

11:00 - 11:20am: Using Tags and Comments to Understand Gender Difference in the Online Evaluation from RateMyProfessors.com
Ting Liu, Yuwei Chen
Computer Science, Siena College, Loudonville, New York, USA

11:20 - 11:40am: Data Science and Security in Digital Governance Aspects and an Elastic Bus Transportation Scheme
Movses Musaelian, Md Zakirul Alam Bhuiyan*, Gary Weiss, Tian Wang, Guojun Wang, Thaier Hayajneh
Fordham University, Bronx, New York, USA

11:40 - 12:00pm: 360 Degree Technology as a Gateway for Immersive Psychotherapy Applications: An Intelligent Patent Mining Analysis
Usharani Hareesh Govindarajan*, Amy J. C. Trappey, and Charles V. Trappey
National Tsing Hua University, Taiwan

12:00 - 12:20pm: An Event Driven Sentiment Detection Method for Correlation Analysis of Bitcoin Market
Chung-Hong Lee*, Hsin-Chang Yang, Yong-Lin Chuang, Shuo-Hsin Huang, Po-Hao Chen
National Kaohsiung University of Science and Technology, Taiwan

12:20 - 01:20pm: LUNCH (On Your Own)

01:20 - 03:00pm: During this period, ICDATA attendees are encouraged to participate in sessions belonging to ACC (Cognitive Computing), BIOCOMP (Bioinfo.), EEE (e-Learning, e-Business, e-Government), ESCS (Cyber-physical Systems), FECS (CS & CE Education), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering.), IPCV (Computer Vision), PDPTA (Parallel & Distributed Processing), & SAM (Security). These sessions discuss topics that may be of interest to ICDATA attendees.
03:00 - 03:40pm: POSTER DISCUSSION SESSION C-ICDATA
July 31, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

03:40 - 05:40pm: TUTORIAL
DIGITAL TWINS DEVELOPMENT AND DEPLOYMENT IN BOTTOM UP APPROACH
Speaker: Dr. Diego Galar
Professor of Lulea University of Technology, Sweden;
Head of Maintenance & Reliability, Tecnalia, Spain;
Coordinator of several H2020 projects in cyber physical systems, Industry 4.0, IoT, & industrial Big Data, Europe
(LOCATION: Galleria B)

05:40 - 06:00pm: ICDATA'19 - CLOSING REMARKS
Dr. Robert Stahlbock
General Chair ICDATA'19;
University of Hamburg, Germany
(LOCATION: Galleria B)

August 1

07:00a - 05:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

08:20a - 05:00p: During this period, ICDATA'19 attendees are encouraged to participate in sessions belonging to EEE (e-Learning, e-Business, e-Government), ESCS (Embedded & Cyber-physical Systems), FECS (Education), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICOMP (Internet Computing & IoT), IKE (Information & Knowledge Eng.), IPCV (Computer Vision), PDPTA (Parallel & Distributed Processing), or SAM (Security) conferences. These sessions discuss topics that may be of interest to ICDATA'19 attendees.