REGISTRATION DATES AND TIMES & CONFERENCE PACKAGE PICKUP

July 29, 2018 (Sunday):
                03:00pm - 07:00pm
                (LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 30, 2018 (Monday):
                07:00am - 05:00pm
                (LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

July 31, 2018 (Tuesday):
                07:00am - 05:00pm
                (LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

August 1, 2018 (Wednesday):
                07:00am - 05:00pm
                (LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

August 2, 2018 (Thursday):
                07:00am - 05:00pm
                (LOCATION: Lotus Ballrooms 1-2; Registration Counter/Desk)

CONFERENCES ACRONYMS AND THEIR FULL TITLES

ACC'18:   The 2nd International Conference on Applied Cognitive Computing

BIOCOMP'18:   The 19th International Conference on Bioinformatics &
               Computational Biology

BIOENG'18:   The 4th International Conference on Biomedical Engineering
               and Sciences

CSC'18:   The 16th International Conference on Scientific Computing

EEE'18:   The 17th International Conference on e-Learning, e-Business,
               Enterprise Information Systems, and e-Government

ESCS'18:   The 16th International Conference on Embedded Systems,
               Cyber-physical Systems, and Applications

FCS'18:   The 14th International Conference on Foundations of
               Computer Science

FECS'18:   The 14th International Conference on Frontiers in Education:
               Computer Science and Computer Engineering

GCC'18:   The 14th International Conference on Grid, Cloud, and Cluster
               Computing

HIMS'18:   The 4th International Conference on Health Informatics and
               Medical Systems

ICAI'18:   The 20th International Conference on Artificial Intelligence

ICDATA'18:   The 14th International Conference on Data Science

ICOMP'18:   The 19th International Conference on Internet Computing and IoT

ICWN'18:   The 17th International Conference on Wireless Networks

IKE'18:   The 17th International Conference on Information & Knowledge
               Engineering

IPCV'18:   The 22nd International Conference on Image Processing, Computer
               Vision, & Pattern Recognition

MSV'18:   The 15th International Conference on Modeling, Simulation and
               Visualization Methods

PDPTA'18:   The 24th International Conference on Parallel and Distributed
               Processing Techniques and Applications

SAM'18:   The 17th International Conference on Security and Management

SERP'18:   The 16th International Conference on Software Engineering
               Research and Practice

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.

O. **CONGRESS WELCOME REMARKS AND REPORT: (July 30)**
    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 30 (Monday), 2018; 08:30am - 08:50am
    LOCATION: Galleria B-C

O. **CONGRESS OPENING SPEECH: (July 30)**
    THRIVING IN AN INCREASINGLY INTERDISCIPLINARY WORLD
    Dr. Stacey Franklin Jones
    Award winning aerospace software engineer, computer scientist, and
    higher education administrator as Chair, Dean, Provost, Chancellor,
    and Vice President (multiple institutions)
    Date and time: July 30 (Monday), 2018; 08:50am - 09:10am
    LOCATION: Galleria B-C

O. **INVITED: (July 30)**
    **INITIATIVES AND PLATFORMS TO ALLEVIATE THE CHALLENGES FACED BY
    RESEARCHERS AND PHD STUDENTS IN AFRICA & MOST DEVELOPING COUNTRIES**
    Nnenna Christine Martin
    Research Director, ResearchLink International LLC, Greensboro,
    North Carolina, USA
    Date and time: July 30 (Monday), 2018; 09:10am - 09:30am
    LOCATION: Galleria B-C

O. **KEYNOTE LECTURE: (July 30)**
    **DATA SCIENCE IN INDUSTRY & TRANSPORT: THE BLACK SWAN EFFECT AND
    THE SWAN SONG DESIRE**
    Prof. Diego Galar
    Lulea University of Technology (LTU), Luea, Sweden; Coordinator of
    several H2020 projects in cyber physical systems, Industry 4.0,
    IoT, & industrial Big Data; Principal Researcher, Tecnalia, Spain;
    Visiting Professor, University of Sunderland (UK); University of
    Maryland (USA); ...
    Date and time: July 30 (Monday), 2018; 09:30am - 10:20am
    LOCATION: Galleria B-C

O. **INVITED LECTURE: (July 30)**
    DATA REVOLUTION: FROM DATA SCIENCE TO DATA ECONOMY
    Dr. Peter Geczy
    National Institute of Advanced Industrial Science and Technology
    (AIST), Japan
    Date and time: July 30 (Monday), 2018; 11:00am - 12:20pm
    LOCATION: Galleria B

O. **INVITED LECTURE: (July 30)**
    **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; Recipient
    of Fellowship from Lawrence Livermore National Laboratories (LLNL)
    for Cyber Defenders program
    Date and time: July 30 (Monday), 2018; 01:30pm - 03:00pm
    LOCATION: Galleria A

O. INVITED LECTURE: (July 30)
    MORE DATA LESS DOWNTIME - THE ROAD FROM DESCRIPTION, PREDICTION
    TOWARDS PRESCRIPTION BY THE MEANS OF DIGITIZATION
    Prof. Diego Galar
    Lulea University of Technology (LTU), Luea, Sweden; Coordinator of
    several H2020 projects in cyber physical systems, Industry 4.0,
    IoT, & industrial Big Data; Principal Researcher, Tecnalia, Spain;
    Visiting Professor, University of Sunderland (UK); University of
    Maryland (USA); ...
    Date and time: July 30 (Monday), 2018; 05:20pm - 07:20pm
    LOCATION: Galleria B

O. KEYNOTE LECTURE: (July 31)
    TERRORIST THREAT: HOW RESILIENT ARE OUR TRAIN NETWORKS?
    Dr. Martin Zsifkovits
    University of Armed Forces Munich, Munchen, Germany;
    Formerly, Co-Leader of German RiKoV project and Co-Leader of
    the REHSTRAIN project; (Visiting, Stanford University, 2017)
    Date and time: July 31 (Tuesday), 2018; 01:30pm - 03:00pm
    LOCATION: Galleria A

O. TUTORIAL: (July 31)
    PREDICTING WITH CONFIDENCE
    Prof. Ulf Johansson
    Department of Computer Science and Informatics,
    Jonkoping University, Sweden
    Date and time: July 31 (Tuesday), 2018; 03:40pm - 05:40pm
    LOCATION: Galleria B

O. KEYNOTE/INVITED LECTURE: (July 31)
    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 31 (Tuesday), 2018; 04:40pm - 05:40pm
    LOCATION: Galleria C

O. KEYNOTE/INVITED LECTURE: (July 31)
    APPLICATIONS OF AI: A PRAGMATIC PERSPECTIVE
    Prof. Andrew Ware
    Professor of Computing, University of South Wales, UK;
    Regional Director of Techno Camps, UK
    Date and time: July 31 (Tuesday), 2018; 05:40pm - 06:30pm
    LOCATION: Galleria C

O. INVITED TUTORIAL & TALK: (July 31)
    MACHINE LEARNING AND URBAN ANALYTICS
    Dr. Richard Dunks
    Founder of Datapolitan, New York, USA
    Date and time: July 31 (Tuesday), 2018; 05:40pm - 07:40pm
    LOCATION: Galleria B

O. INVITED LECTURE: (August 1)
    REDUCING CYBER SECURITY NON-LINEARITY, RISKS AND COMPLEXITY
    UTILIZING AXIOMATIC DESIGN AND AUTONOMOUS AI/MACHINE LEARNING
    Dr. John N. Carbone
    Forcepoint Cyber Security, USA; Senior Director, Technical
    Solutions and scientific advisor to Forcepoint LLC, Global
    Governments and Critical Infrastructure division
    Date and time: August 1 (Wednesday), 2018; 08:20am - 09:20am
    LOCATION: Galleria B

O.   **INVITED TUTORIAL & LECTURE: (August 1)**
     BIG DATA ANALYTICS WITH SPARK
     Prof. Mark C. Lewis
     Department of Computer Science, Trinity University,
     San Antonio, Texas, USA; Author of "Programming and Problem-
     Solving Using Scala" series of books
     Date and time: August 1 (Wednesday), 2018; 09:20am - 10:20am
     LOCATION: Galleria B

O.   **INVITED LECTURE: (August 1)**
     APPLICATIONS OF BEHAVIOR-BASED AUTHENTICATION IN THE BUSINESS
     WORLD
     Dr. Dawud Gordon
     CEO & Co-Founder at TwoSense, New York, USA
     Date and time: August 1 (Wednesday), 2018; 03:40pm - 05:40pm
     LOCATION: Galleria B

O.   **INVITED TUTORIAL & LECTURE: (August 1)**
     DARKNETS AND CRYPTOCURRENCY
     Andrew Johnston
     Mandiant (Consultant), a division of FireEye
     Date and time: August 1 (Wednesday), 2018; 05:40pm - 07:40pm
     LOCATION: Galleria B

O.   **INVITED LECTURE: GCC'18 (August 1)**
     CLOUD OF EVERYTHING
     Dr. Assem A. Hamied Moussa
     President of Success Legacy, SCR & ASDF in Africa; e-Commerce
     Tech Manager, Chief of Engineering at Egypt Air, Egypt;
     Member of United Nations for SDG 2030
     Date and time: August 1 (Wednesday), 2018; 05:40pm - 06:20pm
     LOCATION: Galleria C

PDPTA'18 + CSC'18 + GCC'18 CONFERENCE SCHEDULES

International Conference on Parallel and Distributed
Processing Techniques and Applications (PDPTA'18)

+

International Conference on Scientific Computing (CSC'18)

+

International Conference on Grid, Cloud,and Cluster Computing (GCC'18)

Because of partial topical and technical overlap between PDPTA'18, CSC'18, and GCC'18, the schedules of these tracks are merged into one comprehensive 4-day schedule. It is hoped that this would encourage the participants of these conferences to explore cross-fertilization of ideas. There are also a number of other sessions (not listed as part of these conferences) that are of potential interest to PDPTA'18, CSC'18, and GCC'18 participants (sessions belonging to other joint conferences.) Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in BIOCOMP (Bioinformatics), BIOENG (Biomedical Engineering), ESCS (Embedded & Cyber-physical Systems), FECS (Education), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICDATA (Data Science), ICOMP (Internet Computing), IPCV (Computer Vision), MSV (Modeling & Simulation), and SAM (Security) conferences discuss topics that are within the scope of PDPTA'18, CSC'18, and GCC'18; these have been scheduled so that selected PDPTA'18, CSC'18, and GCC'18 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 29

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03:00p - 07:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)
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July 30

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

08:30 - 08:50am: CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am: CONGRESS OPENING SPEECH - July 30, Monday:
Thriving in an Increasingly Interdisciplinary World
Dr. Stacey Franklin Jones
Award winning aerospace software engineer, computer
scientist, and higher education administrator as Chair,
Dean, Provost, Chancellor, and Vice President (multiple
institutions)
(LOCATION: Galleria B-C)

09:10 - 09:30am: AN IMPACTFUL INITIATIVE - Juy 30, Monday:
Initiatives and Platforms to Alleviate the Challenges
Faced by Researchers & PhD Students in Africa & most
Developing Countries
Nnenna Christine Martin
Research Director, ResearchLink International LLC,
Greensboro, North Carolina, USA
(LOCATION: Galleria B-C)

09:30 - 10:20am: KEYNOTE LECTURE - Juy 30, Monday:
Data Science in Industry and Transport: The black swan
effect and the swan song desire
Prof. Diego Galar
Lulea University of Technology (LTU), Luea, Sweden;
Coordinator of several H2020 projects in cyber physical
systems, Industry 4.0, IoT, & industrial Big Data; Principal
Researcher, Tecnalia, Spain; Visiting Professor, University
of Sunderland (UK); University of Maryland (USA); ...
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

SESSION 1-PDPTA: GRAPHS & DISTRIBUTED PROCESSING + DATA PLACEMENT METHODS
Chairs: Dr. Yan Luo
                National Institutes of Health, USA
July 30, 2018 (Monday); 10:40am - 11:20am
(LOCATION: Galleria D)

10:40 - 11:00am: The Weakly Dimension-Balanced Hamiltionian
                   Zong-You Lai, Justie Su-Tzu Juan
                   Department of Computer Science and Information Engineering,
                   National Chi Nan University, Taiwan

11:00 - 11:20am: An Evaluation of Data Placement Methods for Multiple-gear
                   Power-proportional Distributed File Systems
                   Hieu Hanh Le, Haruo Yokota
                   Department of Computer Science, Tokyo Institute of
                   Technology, Tokyo, Japan

SESSION 2-PDPTA: MATHEMATICAL MODELING AND PROBLEM SOLVING (MPS)
Chairs: Prof. Hayaru Shouno* (via Prof. Kazuki Joe)**
                * The University of Electro-Communications, Japan
                ** Nara Women's University, Japan
July 30, 2018 (Monday); 12:40pm - 06:00pm
(LOCATION: Galleria D)

12:40p - 1:00p: Analyzing Order of Domains in Grammar-based Compression of
                   a Proteome
                   Morihiro Hayashida, Kousei Ishibashi, Hitoshi Koyano
                   Department of EE & CS, National Institute of Technology,
                   Matsue, Shimane, Japan

1:00 - 1:20pm: Office Space Classification for Working Comfortable based
                   on Extracted Color Features
                   Akari Nishikawa, Keiko Ono, Mitsunori Miki
                   Ryukoku University, Japan

01:20 - 01:40pm: Autonomous Distributed System Based on Behavioral Model of
                   Social Insects
                   Daichi Teruya, Bipin Indurkhya, Tadakatsu Masaki, and
                   Hironori Nakajo
                   Department of Computer and Information Sciences,
                   Tokyo University of Agriculture and Technology, Tokyo, USA

01:40 - 02:00pm: Data Deduplication for Similar Image Files
                   Toshiyuki Kinoshita , Mohamad Zaini Nurshafiqah, Itaru Koike
                   School of Computer Science, Tokyo University of Technology
                   Hachioji, Tokyo, Japan

02:00 - 02:20pm: Frequency-based Skill Analysis for Motion Pictures
                   Toshiyuki Maeda, Masumi Yajima, Akiyoshi Wakatani
                   Faculty of Management Information, Hannan University, Japan

02:20 - 02:40pm: A Study on Stepwise Satisfaction Method of Constraints for
                   Many Constrained Optimization Problem
                   Tomohiro Yoshikawa, Kento Niwa
                   Nagoya University, Japan

02:40 - 03:00pm: Evaluating Hitting Skills of NPB Players with Logistic
                   Regression Analysis
                   Mamoru Sakai, Hiroki Tanioka, Kenji Matsuura, Masahiko Sano,
                   Kenji Ohira, Tetsushi Ueta, Hiroaki Sakaguchi
                   Center for Administration of Information Technology,
                   Tokushima University, Japan

03:00 - 03:40pm: POSTER SESSION A
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
July 30, 2018 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

O. Implementation of Event Monitoring System using Apache Storm
Sung-Jun Kim, Jae-Kook Lee, Tae-Young Hong
Supercomputing Center, Korea Institute of Science and
Technology Information, DaeJeon, Republic of Korea
O. Message Logging Protocol for Hierarchical Server
Architectures
JinHo Ahn
School of CSE, Kyonggi University, Republic of Korea
O. Accelerating Block-Tridiagonal Matrix Inversion on GPUs
Bemnet Demere, Peter Yoon
Department of CS, Trinity College, Hartford, CT, USA
O. ...

SESSION 2-PDPTA: Continued ... MATHEMATICAL MODELING AND PROBLEM SOLVING (MPS)
Chairs: Prof. Hayaru Shouno* (via Prof. Kazuki Joe)**
* The University of Electro-Communications, Japan
** Nara Women's University, Japan
July 30, 2018 (Monday); 12:40pm - 06:00pm
(LOCATION: Galleria D)

03:40 - 04:00pm: Mosquito Larva Classification based on a Convolution
Neural Network
Alejandra Sanchez Ortizy, Mariko Nakano Miyatake,
Henrik Tuennermann, Toya Teramoto, Hayaru Shouno
Graduate School of Informatics and Engineering, University of
Electro-Communications, Tokyo, Japan

04:00 - 04:20pm: Automatic Font Generation For Early-Modern Japanese
Printed Books
Yuki Takemoto, Yu Ishikawa, Masami Takata, Kazuki Joe
Nara Women's University, Japan

04:20 - 04:40pm: Fast Computation Method of Column Space by using the DQDS
Method and the OQDS Method
Sho Araki, Hiroki Tanaka, Masami Takata, Kinji Kimura,
and Yoshimasa Nakamura
Nara Women's University, Japan

04:40 - 05:00pm: Improvement of Computing Partial Singular Value Decomposition
for Dense Matrix using Thick-restart-Lanczos Method
Masana Aoki, Masami Takata, Kinji Kimura, Yoshimasa Nakamura
Nara Women's University, Japan

05:00 - 05:20pm: Refinement of a Real-time Super-resolution FPGA Circuit
Takashi Matsumoto, Mayo Sanada, Suzuka Yasunami, Kazuki Joe
Nara Women's University, Japan

05:20 - 05:40pm: Optimization of Auto Mesh Generation using Genetic Algorithm
Rina Yamamoto, Yuki Takemoto, Yu Ishikawa, Kazuki Joe
Nara Women's University, Japan

05:40 - 06:00pm: Yield Prediction of Paddy Rice with Machine Learning
                  Yuichiro Maeda, Taichi Goyodani, Shunsaku Nishiuchi, and
                  Eisuke Kita
                  Nagoya University, Japan

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

SESSION 3-PDPTA: SUSTAINABLE NETWORKING SYSTEM ARCHITECTURE FOR FUTURE IOT
Chairs: Prof. Hiroaki Nishikawa* and Prof. Makoto Iwata**
* Vice President for Academic Intelligence,
University of Tsukuba, Director of University Library,
Professor, Division of Information Engineering,
Tsukuba Science City, Ibaraki, Japan;
** Provost for Academic Research, Director of
Research Center for Brain Communication, Professor,
School of Information, Kochi University of Technology,
Kochi, Japan
July 31, 2018 (Tuesday); 08:00am - 10:20am
(LOCATION: Galleria D)

08:00 - 08:20am: Multi-Layered Information Management System for IoT-Based
P2P Applications
Kazunori Ueda, Makoto Iwata, Ken-ichi Baba
School of Information, Kochi University of Technology,
Kochi, Japan

08:20 - 08:40am: Spiking Neural Network Predicting Temporal Sequence of
2D-Patterns
Kohmei Shiomi, Yuki Umezaki, Akane Saito, Makoto Iwata
School of Information, Kochi University of Technology,
Kochi, Japan

08:40 - 09:00am: Cardinality-Based Traffic Classification Using Packet
Sampling
Kohei Ito, Akira Sato, Shuji Sannomiya, Kenichi Yoshida,
and Yasushi Shinjo
Graduate School of Systems and Information Engineering,
University of Tsukuba, Ibaraki, Japan

09:00 - 09:20am: DNS Clients Behavior Classification Based on Query Analysis
Kodai Watanabe, Akira Sato, Shuji Sannomiya, Yasushi Shinjo
Graduate School of Systems and Information Engineering,
University of Tsukuba, Ibaraki, Japan

09:20 - 09:40am: Least Slack Time Hardware Scheduler Based on Self-Timed
Data-Driven Processor
Yushin Wada, Kazuma Fukuda, Makoto Iwata
School of Information, Kochi University of Technology,
Kochi, Japan

09:40 - 10:00am: Decentralized Hardware Scheduler for Self-Timed Data-Driven
Multiprocessor
Kazuma Fukuda, Yushin Wada, Makoto Iwata
School of Information, Kochi University of Technology,
Kochi, Japan

10:00 - 10:20am: Data-Driven IoT Platform Architecture with Overload
Avoidance Capability
Shuji Sannomiya, Yukikuni Nishida, Hiroaki Nishikawa
Faculty of Engineering, Information and Systems,
University of Tsukuba, Ibaraki, Japan

10:20 - 10:40am: BREAK

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SESSION 4-CSC:    MILITARY AND DEFENSE MODELING AND SIMULATION
                  Chairs: Dr. Douglas D. Hodson* & Dr. Michael R. Grimaila**
                        *CSE Department, US Air Force Institute of
                        Technology, USA;
                        **Head of the Systems Engineering and Management
                        Department, US Air Force Institute of Technology, USA
                  July 31, 2018 (Tuesday); 10:40am - 12:00pm
                  (LOCATION: Galleria D)
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10:40 - 11:00am: Visualizing Behaviors when Using Real vs Synthetic Imagery
                   for Computer Vision
                   Scott L. Nykl
                   Computer Science, US Air Force Institute of Technology, USA

11:00 - 11:20am: Modeling Inconsistency in DIS with DEVS
                   Jeremy R. Millar, Douglas D. Hodson
                   Computer Science, US Air Force Institute of Technology, USA

11:20 - 11:40am: Application of ECS Game Pattern in Military Simulators
                   Douglas Hodson
                   CSE Department, US Air Force Institute of Technology, USA

11:40 - 12:00pm: The Mixed Reality Simulation Platform (MIXR)
                   Douglas Hodson
                   US Air Force Institute of Technology, USA

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

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SESSION 5-CSC:     COMPUTATIONAL SCIENCE, ALGORITHMS AND APPLICATIONS
                   Chairs: Dr. Oliver Knodel* and Dr. Janusz Stafiej**
                           * Department of Computer Science, Technische Universitat
                             Dresden, Germany
                           **Cardinal Stefan Wyszynski University, Poland
                   July 31, 2018 (Tuesday); 01:00pm - 03:00pm
                   (LOCATION: Galleria D)
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01:00 - 01:20pm: Machine Learning for Predictive Analytics in Compute Clusters
                   Dan Andresen, William Hsu, Huichen Yang, Adedolapo Okanlawon
                   Department of Computer Science, Kansas State University,
                   Manhattan, Kansas, USA

01:20 - 01:40pm: GymTicket: An Issue Tracking Solution for Gym Equipment
                   Eric Merryman, En Cheng
                   Department of Computer Science, The University of Akron,
                   Akron, Ohio, USA

01:40 - 02:00pm: Improving Landsat 8 Cloud Detection Algorithms via a new
                   Snow Identification and Separation Algorithm
                   Thomas A. Krammer, Parvaneh Saeedi
                   Simon Fraser University, Canada

02:00 - 02:20pm: Toward Deep Secure Tele-surgery System
                   Pedram Fekri, Peyman Setoodeh, Ali Akbar Safavi, and
                   Mehrdad Hosseini Zadeh
                   School of Electrical and Computer Engineering,
                   Shiraz University, Iran; ECE Department, Kettering
                   University, Flint, Michigan, USA

02:20 - 02:40pm: FREE SLOT

02:40 - 03:00pm: FREE SLOT

03:00 - 03:40pm: **POSTER SESSION B**
                   (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                   July 31, 2018 (Tuesday)
                   (LOCATION: Lotus Ballrooms 1-2)

                   O. Multi-feature Classification of Remote Sensing Big Data Based
                       on a Random Forest Classifier for Forest Cover Mapping
                       Zhang Xiaomei, He Guojin, Long Tengfei
                       Institute of Remote Sensing and Digital Earth,
                       Chinese Academy of Sciences, P. R. China
                   O. ...

SESSION 6-PDPTA: **CLOUD COMPUTING**
Chairs: Prof. Kazi Zunnurhain* and Prof. Emilio Luque**
* Department of Computer Science, Kean University, New Jersey, USA
**Computer Architecture & Operating Systems Department,
University Autonoma of Barcelona (UAB), Barcelona, Spain
July 31, 2018 (Tuesday); 03:40pm - 04:40pm
(LOCATION: Galleria D)

03:40 - 04:00pm: Cloud, a Flexible Environment to Test HPC I/O Configurations
Pilar Gomez-Sanchez, Sandra Mendez, Javier Panadero,
Aprigio Bezerra, Dolores Rexachs, Emilio Luque
Computer Architecture and Operating Systems Department,
Universitat Autonoma de Barcelona, Barcelona, Spain;
High Performance Systems Division, Leibniz Supercomputing
Centre (LRZ), Garching near Munich, Germany; IN3 - CS
Department, Open University of Catalonia, Barcelona, Spain;
Departamento de Ciencias Exactas e Tecnologicas, Universidade
Estadual de Santa Cruz, Bahia, Brazil

04:00 - 04:20pm: Robust Resource Allocation Using Edge Computing for Smart
Oil Fields
Razin Farhan Hussain, Mohsen Amini Salehi, Anna Kovalenko,
Saeed Salehi, Omid Semiari
University of Louisiana at Lafayette, Louisiana, USA;
University of Oklahoma, Oklahoma, USA;
Georgia Southern University, Georgia, USA

04:20 - 04:40pm: DA-MCM: A Dynamic Application-Aware Mechanism for MPI
Communications in Cloud Environments
Laura Espinola, Daniel Franco, Emilio Luque
Computer Architecture and Operating System Department,
Universidad Autonoma de Barcelona (UAB), Barcelona, Spain

<u>CONCURRENT SESSIONS:</u>
<u>SESSION 7-GCC & KEYNOTE LECTURE ARE BEING HELD CONCURRENTLY</u>

SESSION 7-GCC: **CLOUD COMPUTING AND VIRTUALIZATION + ENERGY CONSERVATION**
Chairs: Dr. John M. Medellin
Research Associate Professor (formerly IBM Executive
& PricewaterhouseCoopers Partner), Southern Methodist
University, Darwin Deason Institute for Cyber Security,
Dallas, Texas, USA
johnmedellin@verizon.net
July 31, 2018 (Tuesday); 04:40pm - 06:20pm
(LOCATION: Galleria D)

04:40 - 05:00pm: Cracking The Cloud: An Empirical Test of Performance and
Value on Cloud, Serverless, and Edge Platforms
Chris Edwards, Wei Hao
Department of Computer Science, Northern Kentucky University,
Highland Heights, Kentucky, USA

05:00 - 05:20pm: Performance Characteristics of Two Blockchain Consensus
Algorithms in a VMware Hypervisor
John M. Medellin, Mitchell A. Thornton
Cecil H. Green Chair in Engineering, Darwin Deason Institute
for Cybersecurity, Lyle School of Engineering, Southern
Methodist University, Dallas, Texas, USA

05:20 - 05:40pm: A Firewall-friendly USB Hub for Virtual Machines using USBIP
and Guacamole
Daniel Paradis, Bruce Segee
ECE, University of Maine, Orono, Maine, USA

05:40 - 06:00pm: Hybrid Encryption Model for Data Security in Cloud
Environment
Koketso Ntshabele, Bassey Isong, Thusoyaone Moemi,
Nosipho Dladlu, and Naison Gasela
CS Department, North-West University, South Africa

06:00 - 06:20pm: An Optimal Energy Conservation Measure (ECM) Determination
System for Building Retrofit
Hong-Soon Nam, Tae-Hyung Kim, Youn-Kwae Jeong
IoT Research Department, Hyper-connected Communication
Laboratory, Electronics and Telecommunications Research
Institute (ETRI), Daejeon, Republic of Korea

04:40 - 05:40pm: **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 C) <---------- Note the location change

05:40 - 06:30pm: **KEYNOTE/INVITED LECTURE:**
Applications of AI: A Pragmatic Perspective
Prof. Andrew Ware
Professor of Computing, University of South Wales, UK;
Regional Director of Techno Camps, UK
(LOCATION: Galleria C) <---------- Note the location change

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


SESSION 8-CSC:    COMPUTATIONAL SCIENCE, ALGORITHMS AND APPLICATIONS
                  Chair:  Dr. Mahmoud Abdelgawad* and Prof. Haydar Teymourlouei**
                          * Department of Computer Science, University of Denver,
                            Denver, Colorado, USA
                          **Interim Chair, Department of Computer Science,
                            Lincoln University, PA, USA
                  August 1, 2018 (Wednesday); 08:00am - 11:20am
                  (LOCATION: Galleria D)

08:00 - 08:20am:  Computing Techniques Established on the Concept of
                  Polynomial Number
                  Yingchun Zhang
                  Department of Control Engineering, Harbin Institute of
                  Technology, Harbin, P. R. China

08:20 - 08:40am:  An Exploratory Analysis of Blockchain: Applications,
                  Security, and Related Issues
                  Divya Kamboj, T. Andrew Yang
                  Department of CS, University of Houston-Clear Lake,
                  Houston, Texas, USA

08:40 - 09:00am:  Measuring Failover Time for High Availability Network
                  James T. Yu
                  College of Computing and Digital Media,
                  DePaul University, Chicago, Illinois, USA

09:00 - 09:20am:  Heuristic of VM Allocation to Reduce Migration Complexity
                  at Cloud Server
                  Devika Kakkar, G. S. Young
                  Department of CS, California Polytechnic University,
                  Pomona, California, USA

09:20 - 09:40am:  Use of Word Pairs and Context to Achieve Better Automatic
                  Speech Recognition Results with Foreign English Speakers
                  Daren R. Wilcox, Ron S. Schneider
                  Kennesaw State University, Marietta, Georgia, USA

09:40 - 10:00am:  Preventative Measures in Cyber and Ransomware Attacks for
                  Home and Small Businesses' Data
                  Haydar Teymourlouei
                  Department of CS, Lincoln University, Oxford, PA, USA

10:00 - 10:20am:  FREE SLOT

10:20 - 10:40am:  BREAK

10:40 - 11:00am:  HPC in the Cloud Environment: Challenges and Theoretical
                  Analysis
                  Promise Mvelase, Mncedisi Bembe, Happy Sithole, and
                  Sakhile Masoka
                  CHPC Meraka Institute, Council for Scientific and Industrial
                  Research, Pretoria, South Africa;  Future Wireless Networks,
                  Meraka Institute, Council for Scientific and Industrial
                  Research, Pretoria, South Africa

11:00 - 11:20am:  A Proposal for Using 3D Technology and Modelling as Teaching
                  Tools in Understanding Computer Programming Concepts
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Robert A. Elliott Sr., Nabie Conteh, Patricia Robertson
Southern University at New Orleans, Louisiana, USA

SESSION 9-PDPTA-GCC: SESSION 9-PDPTA-GCC: HPC, COMPUTATIONAL SCIENCE + SCIENTIFIC COMPUTING + DISTRIBUTED COMPUTING + IOT & RESOURCE MANAGEMENT
Chairs: Dr. William Dai* and Dr. Satish Penmatsa**
                    * project leader, Los Alamos National Laboratory, USA
                    **Department of Computer Science, Framingham State
                       University, Framingham, MA, USA
August 1, 2018 (Wednesday); 11:20am - 03:00pm
(LOCATION: Galleria D)

11:20 - 11:40am: Using Machine Learning to Improve Shared-Memory General
                  Matrix-Matrix Multiplication
                  Brandon M. Groth, Glenn R. Luecke
                  Department of Mathematics, Iowa State University, Ames,
                  Iowa, USA

11:40 - 12:00pm: Using Modeling to Improve the Performance of
                  Asynchronous Jacobi
                  Erik Jensen, Evan Coleman, Masha Sosonkina
                  Modeling, Simulation and Visualization Engineering,
                  Old Dominion University, Norfolk, Virginia, USA; Naval
                  Surface Warfare Center, Dahlgren Division, Virginia, USA

12:00 - 12:20pm: Leveraging Inter-Phase Application Dynamism for Energy-
                  Efficiency Auto-Tuning
                  Madhura Kumaraswamy, Michael Gerndt
                  Chair for Computer Architectures and Parallel Systems,
                  Department of Informatics, Technical University of Munich,
                  Bavaria, Germany

12:20 – 12:40pm: A Fully Adaptive Minimal Routing Algorithm in a Crossed Cube
                  Kaito Satoh, Kousuke Mouri, Keiichi Kaneko
                  Graduate School of Engineering, Tokyo University of
                  Agriculture and Technology, Tokyo, Japan; Institute of
                  Engineering, Tokyo University of Agriculture and Technology,
                  Tokyo, Japan

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

01:20 - 01:40pm: Applications of Apache Spark for Numerical Simulation
                  Jordan Koeller, Mark Lewis, David Pooley
                  Department of CS, Trinity University, Texas, USA;
                  Department of Physics and Astronomy, Trinity University,
                  Texas, USA

01:40 - 02:00pm: Hierarchical Two-Dimensional Guided Loop Self-Scheduling
                  for Distributed Systems
                  Satish Penmatsa, Akash Laddha
                  Department of CS, Framingham State University, MA, USA;
                  Staples Inc., Framingham, MA, USA

02:00 - 02:20pm: Efficient Data Allocation Heuristics for Data Center
                  Server Consolidation
                  Xiang Cao, Christian Trefftz, Jerry Scripps
                  School of CIS, Grand Valley State University, Allendale,
                  Michigan, USA

02:20 - 02:40pm: A Workflow for Indexing and Searching a Large-Scale Web
                  Archive Content using Limited Resources
                  Sara Elshobaky, Youssef Eldakar
                  International School of Information Science, Bibliotheca
                  Alexandrina, Alexandria, Egypt

02:40 - 03:00pm: FREE SLOT

03:00 - 03:40pm: **POSTER SESSION C**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 1, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

O. Numerical Investigation of an Inverse Problem in
Thermodynamics
A. Kharab, E. G. Wolff, R. B. Guenther
Mathematics Department, Abu Dhabi University, Abu Dhabi,
UAE; Precision Measurements and Instruments Corp,
Corvallis Oregon, USA; Department of Mathematics,
Oregon State University, Corvallis, Oregon, USA
O. ...

SESSION 10-CSC: **SIMULATION AND MODELING, NOVEL APPLICATIONS, EDUCATION, SCIENTIFIC COMPUTING AND ENGINEERING**
Chairs: Jacob Brendle and Stephanie Loewen; US Army - RDECOM TARDEC, USA
August 1, 2018 (Wednesday); 03:40pm - 06:20pm
(LOCATION: Galleria D)

03:40 - 04:00pm: A Modified Cellular Automata based Model for Nanopore Formation in Anodized Alumina
Janusz Stafiej, Jan Stepien
Institute of Chemistry, Faculty of Mathematics and Natural Sciences, School of Exact Sciences, Cardinal Stefan Wyszynski University, Warsaw, Poland; Department of Complex Systems and Chemical Processing of Information, Institute of Physical Chemistry of the Polish Academy of Sciences, Poland

04:00 - 04:20pm: Driver Model Comparison for Mobility Test Maneuvers for Ground Vehicle Simulations
Sara Boyle, Stephanie Loewen, Jeremy Mange
Analytical Development & Data Science Team, US Army - TARDEC, Warren, Michigan, USA

04:20 - 04:40pm: Adaptive Mesh Refinement, Interface Reconstruction and Numerical Algorithms for Plasma 3-T Radiation Diffusion
William W. Dai
Los Alamos National Laboratory, USA

04:40 - 05:00pm: Monte Carlo Electron Transport Simulation of 4H-SiC using DFT Calculated Density of States
J. Wozny, A. Kovalchuk, Z. Lisik, J. Podgorski, P. Bugalski, A. Kubiak, and L. Ruta
Department of Semiconductor and Optoelectronics Devices, Lodz University of Technology, Wolczanska, Poland

05:00 - 05:20pm: Is the Nice Cybersecurity Workforce Framework (NCWF) Effective for a Workforce Comprising of Interdisciplinary Majors?
Johanna Jacob, Wei Wei, Kewei Sha, Sadegh Davri, and T. Andrew Yang
University of Houston Clear Lake, Houston, Texas, USA

05:20 - 05:40pm: Applications of Directional Fibers to Fixed Point Location and Non-convex Optimization
Garrett E. Katz, James A. Reggia
Department of Computer Science, University of Maryland, College Park, Maryland, USA

05:40 - 06:00pm: Application of a Recurdyn and LabVIEW-based Cooperative Strategy to a 6-axis Articulated Robot with a 2-Axis Additional Welding Jig for Improving Process Efficiency of Welding
Jun Rak Hong, Won Jee Chung, San Seong Lee, Yeon Ju Ahn, and Hee Sung Ahn
School of Mechatronics, Changwon National University, Republic of Korea; R&D Center, Robot Valley Co., Ltd., Changwon, Republic of Korea; R&D Center, OTO Robotics Co., Ltd., Kyungsan, Republic of Korea

06:00 - 06:20pm: Low-Frequency Oscillation Enhancement in Multi-Machine Power System Using Adaptive Online Reinforcement Learning Based Controller
H. Shayeghi, H. A. Shayanfar, A. Younesi
EE Department, University of Mohaghegh Ardabili, Iran;

College of Technical & Engineering, South Tehran Branch,
Islamic Azad University, Tehran, Iran

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

SESSION 11-PDPTA: PARALLEL AND DISTRIBUTED PROCESSING + DATA SCIENCE,
& INTERCONNECTION NETWORKS + COMMUNICATION SYSTEMS
& SCIENTIFIC COMPUTING
Chairs: Prof. Emilio Luque
Computer Architecture & Operating Systems Department,
University Autonoma of Barcelona (UAB), Barcelona, Spain
August 2, 2018 (Thursday); 08:00am - 10:20am
(LOCATION: Galleria D)

08:00 - 08:20am: Investigating the Topological Properties of C2 Torus
Interconnection Network
Ahmad Awwad, Jehad Al-Sadi, Bassam Haddad, Wael Hadi,
Nawaf Nawasrah, and Ahmad Kayed
Department of CS, University of Petra, Amman, Jordan

08:20 - 08:40am: On the Construction of Optimal Node-Disjoint Paths in
Folded Hypercubes of Odd Dimensions
Cheng-Nan Lai
Department of Information Management, National Kaohsiung
University of Science and Technology, Kaohsiung, Taiwan

08:40 - 09:00am: Wearable Human Body Falling Detection Device
Shiannfong Huang, Yan-Cheng Chen, Shu-Hsien Liao
Department of EE, Oriental Institute of Technology,
Banqiao District, New Taipei City, Taiwan; Department of
Institute Electro-Optical Science and Technology,
National Taiwan Normal University, Taipei City, Taiwan

09:00 - 09:20am: A Model-Based Scheduling Framework for Enhancing Robustness
Nicolas Grounds, John Antonio
School of CS, University of Oklahoma, Norman, Oklahoma, USA

09:20 - 09:40am: Flexible Fibering Scheme for Thick Control Flow Processors
Martti Forsell
Efficient Computing and Communications, VTT, Finland

09:40 - 10:00am: Mapping Policies based on Application Signature and
Communication Clustering for HPC
Carlos Ramon Rangel, Alvaro Wong, Dolores Rexachs, and
Emilio Luque
Computer Architecture and Operating Systems Department
(CAOS), University Autonoma de Barcelona, Barcelona, Spain

10:00 - 10:20am: Characterization of I/O Patterns Generated by Fault
Tolerance in HPC Environments
Betzabeth Leon, Daniel Franco, Dolores Rexachs, and
Emilio Luque
Computer Architecture and Operating Systems Department,
Universitat Autonoma de Barcelona, Spain

10:20 - 10:40am: BREAK

SESSION 12-CSC-PDPTA: SCIENTIFIC COMPUTING AND ENGINEERING + HPC
                    Chairs: Dr. Janusz Stafiej
                            Cardinal Stefan Wyszynski University, Poland
                    August 2, 2018 (Thursday); 10:40am - 12:20pm
                    (LOCATION: Galleria D)

10:40 - 11:00am: Designing by a Quadratic Trigonometric Spline with Point and
                  Interval Shape Control
                  Shamaila Samreen, Muhammad Sarfraz, Malik Zawwar Hussain
                  University of Engineering & Technology, Pakistan;
                  Kuwait University, Kuwait; University of Punjab, Pakistan

11:00 - 11:20am: Visibility Enhancement in Poor Weather - Tracking of Vehicles
                  Marwan S. Alluhaidan, Ikhlas Abdel-Qader
                  Department of ECE, Western Michigan University, Kalamazoo,
                  Michigan, USA

11:20 - 11:40am: Further Exploration with ActorKit: An Actor Model of
                  Concurrency
                  Kwabena Aning, Keith Leonard Mannock
                  Department of Computer Science and Information Systems,
                  Birkbeck, University of London, London, UK

11:40 - 12:00pm: Application of SimulationX-based Optimization Technique to
                  Valve-Plate Notch Design of Variable Swash-Plate Type
                  Axial Piston Pump
                  San Seong Lee, Won Jee Chung, Jun Rak Hong, Soo Tae Kim,
                  and Jeong Sil Lee
                  School of Mechatronics, Changwon National University,
                  Republic of Korea; Segae Hydraulic, Republic of Korea

12:00 - 12:20pm: Towards an Efficient Access Control and Computation
                  Environment for IoT using Blockchain
                  Kwame Opuni-Boachie Obour Agyekum, Jianbin Gao,
                  Emmanuel Boateng Sifah, Hanlin Yang, and Qi Xia
                  University of Electronic Science and Technology of
                  China (UESTC), P. R. China

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

SESSION 13-PDPTA: PARALLEL AND DISTRIBUTED PROCESSING + DATA SCIENCE
                    Chairs: Sara Boyle and Dr. Jeremy Mange
                         US Army - RDECOM TARDEC, USA
                    August 2, 2018 (Thursday); 01:00pm - 03:00pm
                    (LOCATION: Galleria D)

01:00 - 01:20pm: Performance Optimization on Intel Xeon Phi Through
                  Load Balancing
                  Chenggang Lai, Xuan Shi, Miaoqing Huang
                  Department of CS & CE, University of Arkansas, Fayetteville,
                  Arkansas, USA; Department of Geosciences, University of
                  Arkansas, Fayetteville, Arkansas, USA

01:20 - 01:40pm: Cache Efficiency Based Dynamic Bypassing Technique for
                  Improving GPU Performance
                  Min Goo Moon, Cheol Hong Kim
                  School of Electronics and Computer Engineering, Chonnam
                  National University, Gwangju, Republic of Korea

01:40 - 02:00pm: Process Scheduling in Parallel Systems for Ground Vehicle
                  Simulations
                  Cesar Lucas, Jacob Brendle, Jeremy Mange
                  Analytical Development & Data Science Team, US Army - TARDEC,
                  Warren, Michigan, USA

02:00 - 02:20pm: e-Health IoT Reactive Services for Elderly Care at Home in
                  Smart City Built on an Emerging Fast Data Architecture
                  Luis Jurado Perez, Joaquin Salvachua Rodriguez
                  Departamento de Ingenieria de Sistemas Telematicos,
                  Universidad Politecnica de Madrid, UPM, Madrid, Spain

02:20 - 02:40pm: An Energy Aware Edge Priority-Based Scheduling Algorithm
                  for Multiprocessor Environments
                  Ashish Kumar Maurya, Anil Kumar Tripathi
                  Department of CSE, Indian Institute of Technology (BHU),
                  Varanasi, India

02:40 - 03:00pm: FREE SLOT

03:00 - 03:20pm: BREAK

SESSION 14-PDPTA: DISTRIBUTED PROCESSING, ALGORITHMS AND APPLICATIONS
            Chairs: Dr. Mahmoud Abdelgawad* and Dr. Garrett E. Katz**
                    * Department of Computer Science, University of Denver,
                      Denver, Colorado, USA
                    **University of Maryland, College Park, Maryland, USA
            August 2, 2018 (Thursday); 03:20pm - 05:20pm
            (LOCATION: Galleria D)

03:20 - 03:40pm: SyNERGY: An Energy Measurement and Prediction Framework for
                   Convolutional Neural Networks on Jetson TX1
                   Crefeda Faviola Rodrigues, Graham Riley, Mikel Lujan
                   University of Manchester, UK

03:40 - 04:00pm: Modeling 3D Voronoi Diagrams using the Visual Parallel
                   Programming Language VPPL
                   Jose Luis Quiroz-Fabian, Graciela Roman-Alonso, Miguel
                   Alfonso Castro-Garcia, Manuel Aguilar Cornejo
                   Universidad Autonoma Metropolitana, Mexico City, Mexico

04:00 - 04:20pm: A New Token-based GME Algorithm for the Distributed AIM
                   Sung Hoon Park, Bo Kyong Kim, Young Chul Seo, Yeong Mok Kim
                   School of ECE, Chungbuk National University, Rep. of Korea

04:20 - 04:40pm: A Data Partitioning Optimization Approach for Distributed
                   Data Warehouses on Column Family NoSQL Systems
                   Mohamed Boussahoua, Omar Boussaid, Fadila Bentayeb, and
                   Nadia Kabachi
                   ERIC Laboratory EA 3083, University of Lyon 2, Bron Lyon,
                   France; University of Lyon 1, Villeurbanne Lyon, France

04:40 - 05:00pm: Performance Evaluation and Tuning of an OpenCL Based
                   Matrix Multiplier
                   Yiyu Tan, Toshiyuki Imamura
                   RIKEN Advanced Institute for Computational Science,
                   Chuo-ku, Kobe, Hyogo, Japan

05:00 - 05:20pm: FREE SLOT

05:20 - 05:40pm: FREE SLOT

05:40 - 06:00pm: FREE SLOT

SAM'18
CONFERENCE SCHEDULE

The 2018 International Conference on Security and Management (SAM'18)

There are a number of other sessions (not listed as part of SAM'18 Conference) that are of potential interest to SAM'18 participants (sessions belonging to other joint conferences.) Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in EEE (e-Learning, e-Business, Enterprise Information Systems, & e-Government), ESCS (Embedded & Cyber-physical Systems), FECS (Education), GCC (Grid, Cloud, & Cluster Computing), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICDATA (Data Science), ICOMP (Internet Computing & IoT), ICWN (Wireless Networks), IKE (Knowledge Engineering), IPCV (Computer Vision), PDPTA (Parallel & Distributed Processing), and SERP (Software Engineering) conferences discuss topics that are within the scope of SAM'18; these have been scheduled so that selected SAM'18 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 29

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


08:30 - 08:50am:   CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am:   CONGRESS OPENING SPEECH - July 30, Monday:
                   Thriving in an Increasingly Interdisciplinary World
                   Dr. Stacey Franklin Jones
                   Award winning aerospace software engineer, computer
                   scientist, and higher education administrator as Chair,
                   Dean, Provost, Chancellor, and Vice President (multiple
                   institutions)
                   (LOCATION: Galleria B-C)

09:10 - 09:30am:   AN IMPACTFUL INITIATIVE - Juy 30, Monday:
                   Initiatives and Platforms to Alleviate the Challenges
                   Faced by Researchers & PhD Students in Africa & most
                   Developing Countries
                   Nnenna Christine Martin
                   Research Director, ResearchLink International LLC,
                   Greensboro, North Carolina, USA
                   (LOCATION: Galleria B-C)

09:30 - 10:20am:   KEYNOTE LECTURE - Juy 30, Monday:
                   Data Science in Industry and Transport: The black swan
                   effect and the swan song desire
                   Prof. Diego Galar
                   Lulea University of Technology (LTU), Luea, Sweden;
                   Coordinator of several H2020 projects in cyber physical
                   systems, Industry 4.0, IoT, & industrial Big Data; Principal
                   Researcher, Tecnalia, Spain; Visiting Professor, University
                   of Sunderland (UK); University of Maryland (USA); ...
                   (LOCATION: Galleria B-C)

10:20 - 10:40am:   BREAK
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SESSION 1-SAM: BIOMETRICS, FORENSICS & INFORMATION ASSURANCE I
                   Chair: Dr. Mikhail Gofman, Calfornia State University,
                         Fullerton, USA
                   July 30, 2018 (Monday); 10:40am - 12:20pm
                   (LOCATION: Galleria A)

10:40 - 11:00am: Memory Forensics Methodology for Investigating
                   Cryptocurrency Protocols
                   Shaimaa S. Ali, Ahmed F. Shosha, Ahmed Elashmawy
                   Department of Information Security, Nile University, Egypt;
                   Axenic Limited, New Zealand

11:00 - 11:20am: Minutiae Point Extraction for Fingerprint Verification
                   System
                   Ifeoma Ugochi Ohaeri, Micheal Bukowo Esiefarienrhe
                   Department of Computer Science, North-West University
                   Mafikeng Campus, South Africa

11:20 - 11:40am: Multimodal Biometrics via Discriminant Correlation Analysis
                   on Mobile Devices
                   Mikhail Gofman, Narciso Sandico, Sinjini Mitra, Eryu Suo,
                   Sadun Muhi, and Tyler Vu
                   Califorina State University, Fullerton, California, USA

11:40 - 12:00pm: Incorporating Delegation into ABAC: Healthcare Information
                   System Use Case
                   Khaled Sabahein, Brian Reithel, Feng Wang
                   Department of Computer and Information Science, University
                   of Mississippi, USA; Department of Management Information
                   Systems, University of Mississippi, USA

12:00 - 12:20pm: FREE SLOT

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

SESSION 2-SAM: **GREG VERT MEMORIAL TALK:**
                   Cyber Security - Privacy: Are We All Living in Glass Houses?
                   Can I Get Some Privacy, Please?
                   KEYNOTE SPEAKER: Prof. Levent Ertaul, California State
                   University, East Bay, California, USA
                   July 30, 2018 (Monday); 01:30pm - 03:00pm
                   (LOCATION: Galleria A)

03:00 - 03:40pm: POSTER DISCUSSION SESSION A-SAM
                   July 30, 2018 (Monday)
                   (LOCATION: Lotus Ballrooms 1-2)

                   O. A Frequency Analysis of Malicious IP Addresses on a
                       Supercomputing Service Environment
                       Jae-Kook Lee, Sung-Jun Kim, Jong-Hun Ahn
                       Supercomputing Service Center, KISTI, Daejeon, Korea;
                       Cyber Emergency Control Team, KISA, Seoul, Korea
                   O. ...

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SESSION 3-SAM:    BIOMETRICS, FORENSICS & INFORMATION ASSURANCE II
                  Chair: Prof. Hala Elsadek,
                        Electronics Research Institute, Egypt
                  July 30, 2018 (Monday); 03:40pm - 05:00pm
                  (LOCATION: Galleria A)


03:40 - 04:00pm:  The Authentication System Automatically Generating Feature
                  Points: Effect of Dummy Feature Points
                  Hiroshi Dozono, Tatsuya Chuto, Masanori Nakakuni
                  Faculty of Science and Engineering, Saga University, Japan;
                  KYOCERA Document Solutions, Japan;
                  Fukuoka University, Japan


04:00 - 04:20pm:  A Software Assistant for the Development of Secure, Usable
                  and Economically Meaningful Software
                  Christopher Ruff, Andrea Horch
                  Competence Team Identity Management, IAT, University of
                  Stuttgart, Germany;  Competence Team Identity Management,
                  Fraunhofer IAO, Stuttgart, Germany


04:20 - 04:40pm:  Improving the Permission Model to Protect the Smartphone
                  Users' Privacy and Applying it on Android
                  Nasir Eisty, Abigail Payne, Travis Atkison
                  CS Department, University of Alabama, Tuscaloosa, USA


04:40 - 05:00pm:  Extended Fault-Tolerant Visual Secret Sharing Scheme
                  without Pixel Expansion
                  Justie Su-Tzu Juan, Yung-Chang Chen
                  Department of Computer Science and Information Engineering,
                  National Chi Nan University, Taiwan, R.O.C.
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05:20 - 07:20pm: INVITED LECTURE (Topic of common interest)
More Data Less Downtime - The road from description,
prediction towards prescription by the means of digitization
Prof. Diego Galar
Lulea University of Technology (LTU), Luea, Sweden;
Coordinator of several H2020 projects in cyber physical
systems, Industry 4.0, IoT, & industrial Big Data; Principal
Researcher, Tecnalia, Spain; Visiting Professor, University
of Sunderland (UK); University of Maryland (USA); ...
(LOCATION: Galleria B) <---------- Note the location change

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


SESSION 4-SAM:     SECURITY EDUCATION + BIOMETRICS
                   Chair: Prof. Guillermo Francia,
                          Jacksonville State University, USA
                   July 31, 2018 (Tuesday); 08:20am - 10:40am
                   (LOCATION: Galleria A)


08:20 - 08:40am:   Selection and Promotion Criteria of Information Security
                   Personnel: Lebanon case study
                   Esther Nehme, Jacques Bou Abdo, Jacques Demerjian
                   Center for Advanced Technology Development, Lebanon;
                   CS Department, Notre Dame University, Deir el Qamar,
                   Lebanon;  Faculty of Sciences, Lebanese University, Lebanon


08:40 - 09:00am:   Scenario-based Learning Approach to Industrial Control
                   Systems Security Training
                   Guillermo A. Francia
                   Center for Information Security and Assurance,
                   Jacksonville State University, Jacksonville, Alabama, USA


09:00 - 09:20am:   Get a Clue: A New EDURange Scenario for Password Cracking
                   Rosemary Arends, Raya Deussen, Benjamin Green, Jodi Rush,
                   and Jens Mache
                   Lewis & Clark College, Portland, Oregon, USA


09:20 - 09:40am:   Social Engineering and its Impacts on Critical
                   Infrastructure: A Comprehensive Survey
                   Jason Pollack, Prakash Ranganathan
                   Department of Electrical Engineering & Mines,
                   University of North Dakota, North Dakota, USA


09:40 - 10:00am:   ADS-B, GPS, IFF, Aviation Navigation Systems Security
                   Jason Pollack, Prakash Ranganathan
                   Department of Electrical Engineering & Mines,
                   University of North Dakota, North Dakota, USA


10:00 - 10:20am:   A Comparison of Machine Learning Classifiers for Acoustic
                   Gait Analysis
                   Jasper Huang, Fabio Di Troia, Mark Stamp
                   Department of Computer Science, San Jose State University,
                   California, USA

10:20 - 10:40am:   BREAK
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SESSION 5-SAM: **SECURITY MANAGEMENT**
                      Chair: Dana Al-Tehmazi,
                              Bahrain Internet Exchange, Bahrain
                      July 31, 2018 (Tuesday); 10:40am - 12:20pm
                      (LOCATION: Galleria A)

10:40 - 11:00am: Investigation of Vulnerabilities with Monitoring Tools
                   Kazi Zunnurhain, Ankur J. Patel, Mairura James
                   Kean University, New Jersey, USA

11:00 - 11:20am: Evaluating Security of Software Through Vulnerability
                   Management Metrics
                   Jonathan Sonnerup, Martin Hell
                   Department of Electrical and Information Technology,
                   Lund University, Lund, Sweden

11:20 - 11:40am: Cyber Security Trust Framework
                   Dana Isa Al-Tehmazi
                   Department of Information Communication Technology,
                   Bahrain Internet Exchange, Manama, Kingdom Of Bahrain

11:40 - 12:00pm: A Blockchain System Integrity Model
                   Mahalingam Ramkumar
                   Department of CSE, Mississippi State University, USA

12:00 - 12:20pm: Predicting Insider Threats by Behavioural Analysis using
                   Deep Learning
                   Kaushal Bhavsar, Bhushan Trivedi
                   GLS School of Research & Innovation, Ahmedabad, India;
                   GLS Institute of Computer Technology, Ahmedabad, India

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

SESSION 6-SAM: **KATHY LIZSKA MEMORIAL TALK:**
                      Terrorist Threat: How Resilient are our Train Networks?
                      KEYNOTE SPEAKER: Dr. Martin Zsifkovits,
                      University of Armed Forces Munich, Munchen, Germany
                      July 31, 2018 (Tuesday); 01:30pm - 03:00pm
                      (LOCATION: Galleria A)

03:00 - 03:40pm: POSTER DISCUSSION SESSION B-SAM
                      July 31, 2018 (Tuesday)
                      (LOCATION: Lotus Ballrooms 1-2)

                      O. FAIR Vulnerability Determined Using Attack Graphs
                          Beth Anderson
                          Computer Science Department, Eastern Washington University,
                          Spokane, Washington, USA
                      O. ...

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SESSION 7-SAM:    CRYPTOGRAPHIC TECHNIQUES
                  Chair: Michael B. O'Hara,
                       KB Computing, LLC, USA
                  July 31, 2018 (Tuesday); 03:40pm - 05:00pm
                  (LOCATION: Galleria A)


03:40 - 04:00pm:  Analysis of McEliece Cryptosystem on Raspberry Pi 3
                  G. Saldamli, L. Ertaul, K. M. A. Menon
                  Computer Engineering Department, San Jose State University,
                  San Jose, California, USA;  Department of Computer Science,
                  California State University East Bay, California, USA


04:00 - 04:20pm:  There Are No Non-Witnesses
                  R. D. McLeod, M. R. Friesen
                  Computer Engineering, University of Manitoba, Canada


04:20 - 04:40pm:  An Efficient Solution for Remote User Authentication Using
                  DNA Crypto and Steganography
                  Mohammed Misbahuddin
                  Centre for Development of Advanced Computing (C-DAC),
                  Bangalore, Karnataka, India


04:40 - 05:00pm:  FREE SLOT

05:00 - 05:20pm:  FREE SLOT
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CONCURRENT KEYNOTE TALKS OF GENERAL INTEREST

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04:40 - 05:40pm:  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 &
                  Department of CS; Colorado State University, Fort Collins,
                  Colorado, USA
                  (LOCATION: Galleria C) <---------- Note the location change


05:40 - 06:30pm:  KEYNOTE/INVITED LECTURE:
                  Applications of AI: A Pragmatic Perspective
                  Prof. Andrew Ware
                  Professor of Computing, University of South Wales, UK;
                  Regional Director of Techno Camps, UK
                  (LOCATION: Galleria C) <---------- Note the location change


05:40 - 07:40pm:  INVITED TUTORIAL & TALK:
                  Machine Learning and Urban Analytics
                  Dr. Richard Dunks
                  Founder of Datapolitan, New York, USA
                  (LOCATION: Galleria B) <---------- Note the location change
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07:00a - 05:00p: REGISTRATION
(Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 8-SAM: COMPUTER SECURITY
Chair: Dr. Jens Kohler,
University of Applied Sciences, Germany
August 1, 2018 (Wednesday); 08:00am - 10:20am
(LOCATION: Galleria A)

08:20 - 08:40am: Petri Nets with Players, Strategies, and Cost: A Formalism
for Modeling Cyberattacks
Katia P. Mayfield, Mikel D. Petty
Department of Mathematics, Computer and Natural Sciences,
Athens State University, Alabama, USA; Department of CS,
University of Alabama in Huntsville, Alabama, USA

08:40 - 09:00am: A Comprehensive Model for Elucidating Advanced Persistent
Threats (APT)
Rudra Prasad Baksi, Shambhu J. Upadhyaya
Department of CSE, University at Buffalo, SUNY, Buffalo,
New York, USA

09:00 - 09:20am: Applying the Kill Chain and Diamond Models to Microsoft
Advanced Threat Analytics (MS ATA)
Levent Ertaul, Mina Mousa
CS Department, California State University East Bay,
California, USA

09:20 - 09:40am: Automating Deployment of Gh0st Remote Access Trojan Malware
Brandon Johnson, George Hsieh, Mary Ann Hoppa
Computer Science, Norfolk State University, Virginia, USA

09:40 - 10:00am: Computer Attacks as Machines of Things that Flow
Sabah Al-Fedaghi, Mennat Allah Bayoumi
CE Department, Kuwait University, Kuwait; Professional
Services Department, EBLA Computer Consultancy, Kuwait

10:00 - 10:20am: An Immunity-based Security Threat Detection Model for
Digital Virtual Assets
Ping Lin, Tao Li, Xiaojie Liu, Hui Zhao, Xiaojun Zhou, and
Fangdong Zhu
College of CS, Sichuan University, Chengdu, P. R. China;
College of Cybersecurity, Sichuan University, Chengdu, China

10:20 - 10:40pm: BREAK

10:40a - 12:20p: During this period, SAM'18 attendees are encouraged to
participate in sessions belonging to EEE (e-Learning,
e-Business, Enterprise Information Systems, & e-Government),
FECS (Education), HIMS (Health Informatics), ICAI
(Artificial Intelligence), ICOMP (Internet Computing & IoT),
ICWN (Wireless Networks), IKE (Knowledge Engineering), IPCV
(Computer Vision), PDPTA (Parallel & Distributed
Processing), or SERP (Software Engineering) conferences.
These sessions discuss topics that may be of interest to
SAM'18 attendees.

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

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SESSION 9-SAM:     NETWORK AND HARDWARE SECURITY
                   Chair: Prof. Levent Ertaul,
                        California State University East Bay, California, USA
                   August 1, 2018 (Wednesday); 01:20pm - 03:00pm
                   (LOCATION: Galleria A)


01:20 - 01:40pm:   Detecting Vulnerabilities within Black Boxed CPUs using
                   Assertion Based Verification for Enhanced Security
                   Juan Portillo, Eugene John
                   Department of Electrical and Computer Engineering,
                   University of Texas at San Antonio, Texas, USA


01:40 - 02:00pm:   Network Security Risk Assessment Based on Weighted PageRank
                   Lei Ai, Tao Li, Xiaojie Liu, Hui Zhao, Jin Yang
                   College of CS, Sichuan University, Chengdu, P. R. China;
                   College of Cybersecurity, Sichuan University, Chengdu,
                   P. R. China

02:00 - 02:20pm:   FREE SLOT

02:20 - 02:40pm:   FREE SLOT

02:40 - 03:00pm:   FREE SLOT




03:00 - 03:40pm:   POSTER DISCUSSION SESSION C-SAM
                   August 1, 2018 (Wednesday)
                   (LOCATION: Lotus Ballrooms 1-2)

                   O.  User-Centric Cryptography - Shifting Power from the Cipher
                       Designer to the Cipher User
                       Gideon Samid
                       Department of Electrical Engineering and Computer Science,
                       Case Western Reserve University, USA
                   O.  ...
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SESSION 10-SAM: SECURITY APPLICATIONS
Co-Chairs: Dr. Hiroshi Dozono, Saga University, Japan;
           Dr. Jacques Bou Abdo, Notre Dame University,
           Louaize, Lebanon
August 1, 2018 (Wednesday); 03:40pm - 06:00pm
(LOCATION: Galleria A)

03:40 - 04:00pm: Electromagnetic Antenna Sensors for Security Systems'
Applications
Tamer Abouelnaga, Haythem Hussein, Hala Elsadek, and
Hesham Eldeeb
Electronics Research Institute, ElNozha Elgadida, Egypt

04:00 - 04:20pm: Semi-Fragile Watermarking Scheme For CFA Images Based on
Authentication Table
Chia-Chen Lin, Xiao-Long Liu, Cheng-Han Lin
Department of Computer Science and Information Management,
Providence University, Taiwan; Department of Computer
Science, National Chiao Tung University, P. R. China

04:20 - 04:40pm: VW16F: A Robust Video Watermarking Using Simulated Block
Based Spatial Domain Technique
Farnaz Arab, Mazdak Zamani
Felician University, Lodi, New Jersey, USA

04:40 - 05:00pm: Developing a UI and Automation Framework for a Cybersecurity
Research and Experimentation Environment
Cody Butler, George Thompson, George Hsieh, Mary Ann Hoppa,
and Kevin S. Nauer
CS, Norfolk State University Norfolk, Virginia, USA;
Computer & Network Security, Sandia National Laboratories,
Albuquerque, New Mexico, USA

05:00 - 05:20pm: Performance Evaluation of a Diagonal n-Partitioning Approach
for Security-Aware Data Management in the Cloud
Dennis Kern, Jens Kohler, Oliver Hummel, Thomas Specht
Institute for Enterprise Computing, University of Applied
Sciences, Mannheim, Paul-Wittsack-Str., Mannheim, Germany

05:20 - 05:40pm: TwitterOSINT: Automated Cybersecurity Threat Intelligence
Collection and Analysis using Twitter Data
Satyanarayan Raju Vadapalli, George Hsieh, Kevin S. Nauer
CS, Norfolk State University, Norfolk, Virginia, USA;
Computer & Network Security, Sandia National Labs,
Albuquerque, New Mexico, USA

05:40 - 06:00pm: Protecting Sensitive Data in Android SQLite Databases
using TrustZone
Francis Akowuah, Amit Ahlawat, Wenliang Du
Electrical Engineering and Computer Science,
Syracuse University, Syracuse, New York, USA

CONCURRENT KEYNOTE TALK OF GENERAL INTEREST

05:40 - 07:40pm: **INVITED TUTORIAL & LECTURE: August 1**
Darknets and Cryptocurrency
Andrew Johnston
Mandiant (Consultant), a division of FireEye
(LOCATION: Galleria B) <---------- Note the location change

August 2

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

08:00a - 06:00p:  During this period, SAM'18 attendees are encouraged to
                  participate in sessions belonging to EEE (e-Learning,
                  e-Business, Enterprise Information Systems, & e-Government),
                  FECS (Education), HIMS (Health Informatics), ICAI
                  (Artificial Intelligence), ICOMP (Internet Computing & IoT),
                  ICWN (Wireless Networks), IKE (Knowledge Engineering), IPCV
                  (Computer Vision), PDPTA (Parallel & Distributed
                  Processing), or SERP (Software Engineering) conferences.
                  These sessions discuss topics that may be of interest to
                  SAM'18 attendees.
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ICAI'18 + ACC'18
CONFERENCE SCHEDULES

The 2018 International Conference on
Artificial Intelligence (ICAI'18)

+

The 2018 International Conference on Applied
Cognitive Computing (ACC'18)

Because of partial topical and technical overlap between ICAI'18 and ACC'18, the schedules of these tracks are merged into one comprehensive 4-day schedule. It is hoped that this would encourage the participants of these conferences to explore cross-fertilization of ideas. There are also a number of other sessions (not listed as part of these conferences) that are of potential interest to ICAI'18 and ACC'18 participants (sessions belonging to other joint conferences.) Therefore, you are encouraged to also check the schedules of other joint conferences. In particular, sessions in BIOCOMP (Bioinformatics), EEE (e-Learning), ESCS (Cyber-physical Systems), FECS (Education), HIMS (Health Informatics), ICDATA (Data Science), ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering), IPCV (Computer Vision), PDPTA (Parallel and Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of ICAI'18 and ACC'18; these have been scheduled so that selected ICAI'18 and ACC'18 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 29

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03:00p - 07:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)
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July 30

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


08:30 - 08:50am:   CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am:   CONGRESS OPENING SPEECH - July 30, Monday:
                   Thriving in an Increasingly Interdisciplinary World
                   Dr. Stacey Franklin Jones
                   Award winning aerospace software engineer, computer
                   scientist, and higher education administrator as Chair,
                   Dean, Provost, Chancellor, and Vice President (multiple
                   institutions)
                   (LOCATION: Galleria B-C)

09:10 - 09:30am:   AN IMPACTFUL INITIATIVE - Juy 30, Monday:
                   Initiatives and Platforms to Alleviate the Challenges
                   Faced by Researchers & PhD Students in Africa & most
                   Developing Countries
                   Nnenna Christine Martin
                   Research Director, ResearchLink International LLC,
                   Greensboro, North Carolina, USA
                   (LOCATION: Galleria B-C)

09:30 - 10:20am:   KEYNOTE LECTURE - Juy 30, Monday:
                   Data Science in Industry and Transport: The black swan
                   effect and the swan song desire
                   Prof. Diego Galar
                   Lulea University of Technology (LTU), Luea, Sweden;
                   Coordinator of several H2020 projects in cyber physical
                   systems, Industry 4.0, IoT, & industrial Big Data; Principal
                   Researcher, Tecnalia, Spain; Visiting Professor, University
                   of Sunderland (UK); University of Maryland (USA); ...
                   (LOCATION: Galleria B-C)

10:20 - 10:40am:   BREAK
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SESSION 1-ICAI: **PREDICTION, NEURAL NETWORKS AND NOVEL APPLICATIONS**
Chairs: Dr. Hiroki Tanioka* and Dr. Garrett E. Katz**
* Tokushima University, Japan
**University of Maryland, College Park, Maryland, USA
July 30, 2018 (Monday); 10:40am - 12:20pm
(LOCATION: Galleria C)

10:40 - 11:00am: Using Multiple Machine Learning Algorithms to Predict Autism
in Children
Hana S. Alarifi, G. S. Young
California State Polytechnic University, California, USA

11:00 - 11:20am: Enhancing Prosthetic Musculotendinous Proprioception Utilizing
Multidisciplinary Artificially Intelligent Learning Approach
John N. Carbone, Ryan A. Carbone, James A. Crowder
Computer Science and Engineering, Southern Methodist University,
Dallas, Texas, USA; Forcepoint Company, USA; Biological
Sciences, Baylor University, Waco, Texas, USA; Colorado
Engineering Inc., Colorado Springs, Colorado, USA

11:20 - 11:40am: Self-trained Multi-layer Analog Real-time Artificial Neural
Network Circuits
Howard E. Michel, David P. Rancour
Department of Electrical and Electronic Engineering Science,
University of Johannesburg, Johannesburg, South Africa;
Department of ECE, University of Massachusetts Dartmouth, USA

11:40a - 12:00p: Neural Network Application in Detecting Breast Cancer by
Removing Outliers
Joseph Cunningham, Justin Thomas, Katrina Mehring,
Cashe E. Collins, and Nasser Tadayon
Department of Computer Science and Information Systems,
Southern Utah University, Cedar City, Utah, USA

12:00 - 12:20pm: Non-Hybrid Meaningful-Based Learning System Using a
Configurable Network of Neural Networks
Howard Schneider
Sheppard Clinic North, Toronto, Ontario, Canada

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

SESSION 2-ACC: **ARTIFICIAL INTELLIGENCE & COGNITIVE COMPUTING & INFORMATION ENGINEERING, & OPTIMIZATION METHODS**
            Chairs: Prof. Nagarajan Prabakar* and Nnenna Christine**
               * School of Computing and Information Sciences,
                 Florida International University, Miami, Florida, USA
               **Research Director, ResearchLink International LLC,
                 Greensboro, North Carolina, USA
            July 30, 2018 (Monday); 01:20pm - 03:00pm
            (LOCATION: Galleria C)

01:20 - 01:40pm: Virtual Reality Cognitive Training Program
                 Ahmed D. Fayed, John Rodriguez, Forrest Eisenschmidt, Xiaoli Yang, and Yingjie Li
                 ECE Department, Purdue University Northwest, Indiana, USA;
                 School of Communication and Information Engineering, Shanghai University, Shanghai, P. R. China

01:40 - 02:00pm: Multispectral Contactless 3D Handprint Acquisition for Identification
                 Mark F. Hansen, Melvyn L. Smith, Lyndon N. Smith
                 Centre for Machine Vision, Bristol Robotics Lab, University of the West of England (UWE), Bristol, UK

02:00 - 02:20pm: String Vector Based Version of K Nearest Neighbor for Index Optimization in Current Affairs
                 Taeho Jo
                 Hongik University, Sejong, Republic of Korea

02:20 - 02:40pm: Modifying K Nearest Neighbor into String Vector Based Version for Extracting Keywords from News Articles
                 Taeho Jo
                 Hongik University, Sejong, Republic of Korea

02:40 - 03:00pm: Collecting Training Data to Train an LSTM to Classify a Finite Number of Human Intents from Voice with Slight Negative Latency, and Solving the Use Mention Distinction
                 Isaac Leonard
                 IBM Corporation, USA

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03:00 - 03:40pm:   POSTER SESSION A
                   (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                   July 30, 2018 (Monday)
                   (LOCATION: Lotus Ballrooms 1-2)

                   O.  Degree of Association between Concepts using Wikipedia
                       Concept-base and Word2Vec
                       Hirokazu Watabe, Misako Imono, Seiji Tsuchiya
                       Department of Intelligent Information Engineering and Science,
                       Doshisha University, Kyotanabe, Kyoto, Japan;  Department of
                       Information Systems, Daido University, Nagoya, Japan
                   O.  Novel Scheme for Multi Criteria Decision Making Method using
                       Probabilistic Analytic Hierarchy Process
                       Aleksander Marianski, Michal Kedziora, Ireneusz Jozwiak
                       Faculty of Computer Science and Management, Wroclaw
                       University of Science and Technology, Wroclaw, Poland
                   O.  Reflex-augmented Reinforcement Learning for Electrical Energy
                       Management in Vehicles
                       Andreas Heimrath, Joachim Froeschl, Uwe Baumgarten
                       BMW AG, Munich, Germany;  Department of Informatics,
                       Technical University of Munich, Garching, Germany
                   O.  Prayer Activity Recognition Using an Accelerometer Sensor
                       Omar Alobaid, Khaled Rasheed
                       University of Georgia, Athens, Georgia, USA
                   O.  Second Order Optimization Methods in Neural Nets with a
                       Knowledge Based Expert System Control Loop
                       Simon Michael Herrmann, Hans Ehm
                       Technical University of Munich, Germany;
                       Infineon Technologies AG, Neubiberg, Germany
                   O.  ...


03:40 - 05:20pm:   During this period, ICAI'18 and ACC'18 attendees are encouraged
                   to participate in sessions belonging to BIOCOMP (Bioinformatics),
                   EEE (e-Learning), ESCS (Cyber-physical Systems), FECS
                   (Education), HIMS (Health Informatics), ICDATA (Data Science),
                   ICOMP (Internet Computing & IoT), IKE (Knowledge Engineering),
                   IPCV (Computer Vision), PDPTA (Parallel and Distributed
                   Processing), or SAM (Security) conferences. These sessions
                   discuss topics that may be of interest to ICAI'18 and ACC'18
                   attendees.


05:20 - 07:20pm:   INVITED LECTURE:
                   More Data Less Downtime - The road from description, prediction
                   towards prescription by the means of digitization
                   Prof. Diego Galar
                   Lulea University of Technology (LTU), Luea, Sweden; Coordinator
                   of several H2020 projects in cyber physical systems, Industry
                   4.0, IoT, & industrial Big Data; Principal Researcher, Tecnalia,
                   Spain; Visiting Professor, University of Sunderland (UK);
                   University of Maryland (USA); and Chongqing University (China)
                   (LOCATION: Galleria B)
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07:00a - 05:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)


SESSION 3-ICAI-ACC: BIO-INSPIRED COMPUTING, EVOLUTIONARY SYSTEMS, SWARM
                  INTELLIGENCE, OPTIMIZATION METHODS + COGNITIVE SCIENCE
                  Chairs: Prof. Darrin Hanna* and Maxfield Thompson**
                          * Oakland University, Rochester, Michigan, USA
                          **Principal Data Scientist, Bridgestone Americas &
                            Adjunct Professor, Belmont University, USA and
                            Lipscomb University, USA
                  July 31, 2018 (Tuesday); 08:00am - 10:40am
                  (LOCATION: Galleria C)


08:00 - 08:20am:  Multi-objective Optimization based on a Multi-criteria
                  Estimation of Distribution
                  Pedro M. Sousa Bezerra, Fernando J. Von Zuben, and
                  Guilherme P. Coelho
                  University of Campinas - UNICAMP, Brazil


08:20 - 08:40am:  Designing Convolutional Neural Network Architecture Using
                  Genetic Algorithms
                  Ashray Bhandare, Devinder Kaur
                  Department of EECS, University of Toledo, Toledo, Ohio, USA


08:40 - 09:00am:  Adaptive Radius Immune Algorithm for Multimodal Function
                  Optimization in Dynamic Environments
                  Amanda O. C. Ayres, Willian Rampazzo, Euler R. S. Faria,
                  Pedro M. Sousa Bezerra, Levy Boccato, Romis Attux, and
                  Fernando J. Von Zuben
                  University of Campinas, Campinas, SP, Brazil


09:00 - 09:20am:  A Comparative Analysis of Immune System Inspired Algorithms
                  for Traveling Salesman Problem
                  Devinder Kaur, Isha Muthreja
                  Department of EECS, University of Toledo, Toledo, Ohio, USA


09:20 - 09:40am:  Simultaneous Placement of Multi-DG and SVC in the Distribution
                  System with Nonlinear Load Model
                  H. A. Shayanfar, H. Shayeghi, M. Alilou, B. Tousi
                  Islamic Azad University, Tehran, Iran;  University of
                  Mohaghegh Ardabili, Iran;  Urmia University, Urmia, Iran


09:40 - 10:00am:  Cooperation Emergence in a Simulated Evolutionary Context
                  of AI Systems
                  Guido Tascini
                  Carducci Study and Research Center, Former UNIVPM AI Lab
                  (Universita Politecnica delle Marche), Italy


10:00 - 10:20am:  Optimization of Location and Size of DG and DVR for Improving
                  the Performance of Distribution System
                  H. Shayeghi, H. A. Shayanfar, M. Alilou, B. Tousi
                  EE Department, University of Mohaghegh Ardabili, Iran;
                  College of Technical & Engineering, South Tehran Branch,
                  Islamic Azad University, Tehran, Iran;  EE Department,
                  Urmia University, Urmia, Iran


10:20 – 10:40am:  Proposal of a Design Method to Apply the Analog Features to
                  Digital Media
                  Ziran Fan, Takayuki Fujimoto
                  Graduate School of Information Sciences and Arts,
                  Toyo University, Saitama, Japan


10:20 - 10:40am:  BREAK
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**SESSION 4-ICAI-ACC: ARTIFICIAL INTELLIGENCE, PATTERN RECOGNITION,
CLUSTERING, AND APPLICATIONS + CNN & DEEP LEARNING +
COGNITIVE SCIENCE
Chairs: Prof. Scott A. Burgess* and Kuo-Wei Wu****
    * Humboldt State University, USA
    **National Taiwan University, Taiwan, ROC
July 31, 2018 (Tuesday); 10:40am - 12:40pm
(LOCATION: Galleria C)

10:40 - 11:00am: A Framework for Unsupervised Extraction of Social Networks
        from Textual Materials
        Thomas Way
        Department of Computing Sciences, Villanova University,
        Villanova, PA, USA

11:00 - 11:20am: Texture Evaluation of Transparent Acrylic Resin Using
        Self-organizing Maps
        Y. Wakabayashi, K. Chanthasen, S. Yoshida, Y. Kawabata,
        T. Ogawa, T. Sugibayashi
        Department of Mechanical System Engineering, Takushoku
        University, Tokyo, Japan; Department of Electronics and
        Computer System, Takushoku University, Tokyo, Japan

11:20 - 11:40am: (A)KDD for Structuring Destructured Documents:
        (A)KDD = Anthropocentric Knowledge Discovery in Databases
        Jacques Pere-Laperne
        University of Bordeaux, LaBRI-CNRS, Bidart, France

11:40 - 12:00pm: Dynamic Peer-to-Peer Amplifier System used in Agent-based
        Intelligent Tutoring System
        Babak Khosravifar, Clemente Cuevas, Jamal Bentahar
        Erudite Research, Montreal, QC, Canada;
        CIISE, Concordia University, Montreal, QC, Canada

12:00 - 12:20pm: Low Level Entity State Sequence Mapping to High Level
        Behavior via a DeepLSTM Model
        Joshua Haley, Victor Hung, Robert Bridgman, Norb Timpko,
        and Robert Wray
        Intelligent Training Division, Soar Technology Inc.,
        Ann Arbor, Michigan, USA

12:20 – 12:40pm: Designing Social Network Application Specialized for Word-
        of-Mouth Video Sharing to Reflect the Latest Youth Trends
        Arisa Fujinoki, Takayuki Fujimoto
        Graduate School of Information Sciences and Arts,
        Toyo University, Tokyo, Japan

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

SESSION 5-ACC-ICAI: COGNITIVE SCIENCE + ADAPTIVE LEARNING & APPLICATIONS
Chairs: Maxfield Thompson* and Prof. Darrin Hanna**
* Principal Data Scientist, Bridgestone Americas; &
Adjunct Professor, Belmont University, USA and
Lipscomb University, USA
**Oakland University, Rochester, Michigan, USA
July 31, 2018 (Tuesday); 01:20pm - 03:20pm
(LOCATION: Galleria C)

01:20 - 01:40pm: Population-Based Incremental Learning Algorithm for
                  Identification of Blood Glucose Dynamics Model for Type-1
                  Diabetic Patients
                  Juan D. Hoyos, Freddy Bolanos, Monica Vallejo, and
                  Pablo S. Rivadeneira
                  Universidad Nacional de Colombia, Colombia

01:40 - 02:00pm: Comparison of Different Multi Objective Evolutionary
                  Algorithms for Bug Localization
                  Maria Tamoor, Saira Osama, Saara Asif, Irfan Younas
                  Forman Christian College Lahore, Pakistan; University of
                  Management and Technology, Lahore, Pakistan;
                  NUCES, Lahore, Pakistan

02:00 - 02:20pm: A Cognitive Framework for Detecting Phishing Websites
                  Samaa Elnagar, Manoj Thomas
                  Virginia Commonwealth University, Virginia, USA

02:20 - 02:40pm: Can Consciousness be Observed? Rethinking the Hard Problem
                  Brent Allsop
                  Canonizer.com, Salt Lake City, Utah, USA

02:40 - 03:00pm: Proposal for 9-Squares Shogi Application Utilizing 3D
                  Hologram
                  Yui Tanaka, Takayuki Fujimoto
                  Graduate School of Information Sciences and Arts,
                  Toyo University, Tokyo, Japan

03:00 – 03:20pm: Proposal for SNS Application to Relieve Influence from
                  Postings with Approval-desire
                  Taishi Nemoto, Takayuki Fujimoto
                  Graduate School of Information Sciences and Arts,
                  Toyo University, Tokyo, Japan

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03:00 - 03:40pm:   POSTER SESSION B
                   (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                   July 31, 2018 (Tuesday)
                   (LOCATION: Lotus Ballrooms 1-2)

                   O.  A New Approach to Solving the Dial a Ride Problem using
                       Iterative Local Search
                       Belver M., Gomez, A., Priore P., Puente J., Parreno J.
                       Polytechnic School of Engineering of Gijon, Campus de
                       Viesques s/n, Spain
                   O.  Application of Support Vector Machine on Algorithmic Trading
                       Szklarz J., Rosillo R., Alvarez-Gil N., Fernandez I., Garcia N.
                       Polytechnic School of Engineering of Gijon,
                       Campus de Viesques s/n, Spain
                   O.  Smart Eyeglasses
                       Xingyu Mu, Junlei Li, Di Zhao, Junjie Wu, Ming Fu
                       Southern Methodist University, Texas, USA
                   O.  Autonomous Pool Cleaning and Safety System
                       Andrew Whigham, Slater Heil, Yichu Chen, Parker Meinecke,
                       and Joe Davault
                       Southern Methodist University, Texas, USA
                   O.  Digital Twin-based Smart Factory CPS Modeling
                       Taioun Kim
                       Kyungsung University, Busan, Republic of Korea
                   O.  ...


SESSION 6-ICAI:    AUTONOMOUS SYSTEMS + MACHINE LEARNING
                   Chairs: Prof. Alexandre Moreira Nascimento
                           FECAP, ITA, UNIFESP - USA and Brazil
                   July 31, 2018 (Tuesday); 03:40pm - 04:40pm
                   (LOCATION: Galleria C)

03:40 - 04:00pm:   Bi-Objective Study for the Assignment of Unmanned Aerial
                   Vehicles to Targets
                   Ryan D. Friese, James A. Crowder, Howard Jay Siegel,
                   and John N. Carbone
                   Pacific Northwest Lab., Richland, Washington, USA;
                   Colorado Engineering, Inc., Colorado Springs, Colorado, USA;
                   Colorado State University, Colorado, USA;
                   Southern Methodist University, Dallas, Texas, USA

04:00 - 04:20pm:   Autonomous Mission Planner and Supervisor (AMPS) for UAVs
                   James A. Crowder
                   Colorado Engineering, Inc., Colorado Springs, Colorado, USA

04:20 - 04:40pm:   Machine Learning for Diagnosis of Disease in Plants using
                   Spectral Data
                   Godliver Owomugisha, Friedrich Melchert, Ernest Mwebaze,
                   John A. Quinn, and Michael Biehl
                   Johann Bernoulli Institute for Mathematics and Computer
                   Science, Groningen, The Netherlands;  Fraunhofer Institute
                   for Factory Operation and Automation IFF, Magdeburg, Germany;
                   Makerere University, School of Computing & Informatics
                   Technology, Kampala, Uganda;  Busitema University, Faculty
                   of Engineering, Tororo, Uganda
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04:40 - 05:40pm:  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 C)


05:40 - 06:30pm:  KEYNOTE/INVITED LECTURE:
                  Applications of AI: A Pragmatic Perspective
                  Prof. Andrew Ware
                  Professor of Computing, University of South Wales, UK;
                  Regional Director of Techno Camps, UK
                  (LOCATION: Galleria C)
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07:00a - 05:00p: REGISTRATION
(Lotus Ballrooms 1-2; Registration Counter/Desk)

SESSION 7-ICAI: LEARNING METHODOLOGIES, MACHINE LEARNING, COGNITIVE
COMPUTING, REASONING, & APPLICATIONS
Chairs: Prof. Charles Kim and Prof. Alexandre Moreira Nascimento**
* Howard University, Washington, DC., USA
**FECAP, ITA, UNIFESP - USA and Brazil
August 1, 2018 (Wednesday); 08:00am - 10:20am
(LOCATION: Galleria C)

08:00 - 08:20am: Detailed Analysis of Network Attack Detection Accuracy
Using Machine Learning Algorithms
Abdinur Ali, Yen-Hung Hu, Chung-Chu (George) Hsieh, and
Mushtaq Khan
Center of Excellence in Cyber Security,
Norfolk State University, Norfolk, Virginia, USA

08:20 - 08:40am: Machine Reasoning for Determining Radiation Sensitivity of
Semiconductor Devices
Charles Kim, Harald Schone
Electrical Engineering and Computer Science, Howard University,
Washington, DC, USA; Office of Safety and Mission Success,
Jet Propulsion Laboratory, Pasadena, California, USA

08:40 - 09:00am: Methodologies for Continuous Life-Long Machine Learning for
AI Systems
James A. Crowder
Colorado Engineering, Inc., Colorado Springs, Colorado, USA

09:00 - 09:20am: Artificial Neural Diagnostics and Prognostics: Self-Soothing
in Cognitive Systems
James A. Crowder
Colorado Engineering, Inc., Colorado Springs, Colorado, USA

09:20 - 09:40am: tfelm: a TensorFlow Toolbox for the Investigation of ELMs
and MLPs Performance
Andrea Castellani, Samuele Cornell, Laura Falaschetti, and
Claudio Turchetti
DII - Department of Information Engineering, Universita
Politecnica delle Marche, Ancona, Italy

09:40 - 10:00am: Personalized Knowledge Distillation-based Mobile Food
Recognition
Zhao Heng, Sharmili Roy, Kim-Hui Yap, Alex Kot, Lingyu Duan
School of Electrical and Electronic Engineering, Nanyang
Technological University, Singapore; School of Electronics
Engineering and CS, Peking University, P. R. China

10:00 - 10:20am: Large Scale Experimentation on Anomaly Detection Scalability
and Performance
Yaya Sylla, Pierre Morizet-Mahoudeaux
Sorbonne University, University of Technology of Compiegne,
France

10:20 - 10:40am: BREAK

SESSION 8-ICAI/ESCS: EMBEDDED & CYBER PHYSICAL SYSTEMS + APPLICATIONS
Chairs: Prof. Taioun Kim* and Prof. Damian Valles**
* Professor & Dean, Division of External Affairs,
Department of Industrial & Management Engineering,
Kyungsung University, Busan, Republic of Korea
**Ingram School of Engineering, Texas State University,
Texas, USA
August 1, 2018 (Wednesday); 10:40am - 12:40pm
(LOCATION: Galleria C)

10:40 - 11:00am: Design of a Sensor-Based Adaptive Smart Home System using
                   ARM Cortex-M3
                   Md Inzamam Ul Haque, Damian Valles
                   Ingram School of Engineering, Texas State University,
                   San Marcos, Texas, USA

11:00 - 11:20am: Effectiveness of Intermediate Values at Outputs of Adder Designs
                   Angela Tobin, Hussain Al-Asaad
                   Department of Electrical and Computer Engineering,
                   University of California at Davis, California, USA

11:20 - 11:40am: Monitoring and Control of Real-Time Remote Data on Desktop,
                   Android & Web-based Application & Automatic Water Pump Control
                   Abdullah Al Bashit, Damian Valles
                   Ingram School of Engineering, Texas State University,
                   San Marcos, Texas, USA

11:40 - 12:00pm: Inflight Drone Re-routing Method with Google Map on Smart Pad
                   Boyeon Kim, Munseong Jung, Yunseok Chang
                   Software Education Committee, Center for Creative Convergence
                   Education, Hanyang University, Seoul, Republic of Korea;
                   Department of Computer Engineering, Daejin University,
                   Kyunggi, Republic of Korea

12:00 - 12:20pm: Early Warning Dangerous Temperature Embedded System Using
                   Single Exponential Smoothing for Firefighters Safety
                   Farah Jaradat, Damian Valles
                   Ingram School of Engineering, Texas State University,
                   San Marcos, Texas, USA

12:20 - 12:40pm: Gas and Air Quality Detection, Monitoring, and Alerting
                   Using Embedded System for Nanofabrication Facility
                   Mohi Uddin Jewel, Damian Valles
                   Ingram School of Engineering, Texas State University,
                   San Marcos, Texas, USA

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

SESSION 9-ICAI: **AUTONOMOUS SYSTEMS AND APPLICATIONS + FUZZY LOGIC, FUZZY CONTROL, BAYESIAN METHODS, AND APPLICATIONS**
Chairs: Prof. Dr. Oscar Castillo* and Isaac Leonard**
* Tijuana Institute of Technoloy, Mexico
**IBM, USA
August 1, 2018 (Wednesday); 01:20pm - 03:00pm
(LOCATION: Galleria C)

01:20 - 01:40pm: Performance Comparison of Type-1, Interval Type-2 and Generalized Type-2 Fuzzy Logic Controllers
E. Ontiveros-Robles, P. Melin, O. Castillo
Tijuana Institute of Technology, Mexico

01:40 - 02:00pm: An Online Algorithm for Detecting Anomalies using Fuzzy Clustering
Darrin M. Hanna, Michael F. Lohrer, David E. Stern, Alexander Postlmayr, Adam Kollin, Shuo Wang, Gang-Yu Liu
Department of ECE, Oakland University, Rochester, Michigan, USA; RHK Technology, Inc., Troy, Michigan, USA; Department of Chemistry, University of California Davis, California, USA

02:00 - 02:20pm: Comparative Study between the Gravitational Search Algorithm using Type-2 Fuzzy Logic and Particle Swarm Optimization for Neural Networks Architecture Optimization
Beatriz Gonzalez, Patricia Melin, Fevrier Valdez, and German Prado-Arechiga
Tijuana Institute of Technology, Mexico

02:20 - 02:40pm: Deep Deterministic Policy Gradient for Autonomous Vehicle Driving
Hongsuk Yi
Supercomputing Center, Korea Institute for Science and Technology Information, Daejeon, Republic of Korea

02:40 - 03:00pm: Cognitive Mimetics - Main ideas
Pertti Saariluoma, Tuomo Kujala, Antero Karvonen, Mika Ahonen
Cognitive science, University of Jyvaskyla University, Finland

03:00 - 03:40pm: POSTER SESSION C
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 1, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

O. An Agent-based Perspective to Goldratt's PQ problem
    Costas J., Ponte B., Puche J., De la Fuente D., Pino R.
    The Open University Business School, The Open University,
    Walton Hall, Milton Keynes, UK
O. Boiler Tube Leakage Fault Detection Method in Thermal Power
    Plant Using Clustering Techniques
    June Ho Park, Heung Seok Lee, Jung Hwan Kim, Kyu Han Kim
    Department of ECE, Pusan National University, Rep. of Korea
O. Machine Learning based Fault Detection Methods for Boiler
    Tube Leakage Fault in a Thermal Power Plant
    Kyu Han Kim, Heung Seok Lee, Jung Hwan Kim, June Ho Park
    Department of ECE, Pusan National University, Rep. of Korea
O. Machine Learning Classifiers for Network Intrusion Detection
    Samilat Kaiser, Ken Ferens
    Department of ECE, University of Manitoba, Canada
O. Design of a Low Power, Reliable and Secure Multicore
    Embedded RTOS
    Sang Cheol Kim, Jeong-Woo Lee, Pyeongsoo Mah
    Embedded Software Research Group, Electronics and
    Telecommunications of Research Institute (ETRI), Daejeon,
    Rep. of Korea
O. Design and Implementation of Intelligent Rhythmic Robot Based
    on User Preference
    Taebok Yoon, Eun-Sook Na
    Department of Software Engineering, Seoil University, Seoul,
    Rep. of Korea; Department of Early Childhood Education,
    Seoil University, Seoul, South Korea
O. ...

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SESSION 10-ICAI:   DEEP LEARNING, CONVOLUTIONAL NEURAL NETWORKS, &
                   APPLICATIONS + VARIOUS OTHER MACHINE LEARNING METHODS
                   Chairs: Bill Anderson* and Prof. Wenlin Han**
                           * National Center for Atmospheric Research (NCAR), Boulder,
                             Colorado, USA
                           **Department of Computer Science, California State University,
                             Fullerton, California, USA
                   August 1, 2018 (Wednesday); 03:40pm - 05:40pm
                   (LOCATION: Galleria C)


03:40 - 04:00pm:   A Course of Action to Data-driven Predictive Maintenance
                   Xenia Klinge, Jens Haupert
                   German Research Center for Artificial Intelligence (DFKI),
                   Berlin, Germany


04:00 - 04:20pm:   A Sound-based Machine Fault Diagnosis System using Artificial
                   Neural Networks
                   Caleb Vununu, Oh-Heum Kwon, Suk-Hwan Lee, Ki-Ryong Kwon
                   IT Convergence and Applications Engineering Department,
                   Pukyong National University, Republic of Korea;  Department of
                   Information Security, Tomgyong University, Republic of Korea


04:20 - 04:40pm:   Effective Web-Page Classification Using Token-String CNN over
                   URLs and Anchor Texts
                   Liqun Shao, Shun Yao, Xing Zhou, Jia Guo, Jie Wang
                   Department of Computer Science, University of Massachusetts,
                   Lowell, Massachusetts, USA;  Google Inc., New York, USA


04:40 - 05:00pm:   Recent Developments and Emerging Challenges in Deep Neural
                   Networks - A Survey
                   Connor O'Donnell, Wenlin Han
                   Department of Computer Science, California State University,
                   Fullerton, California, USA


05:00 - 05:20pm:   Robotic Sorting of Shredded E-waste: Utilizing Deep Learning
                   Hamidreza Karbasi, Adam Sanderson, Alireza Sharifi, and
                   Carl Wilson
                   School of IT and Engineering, Conestoga College Institute of
                   Technology and Advanced Learning, Cambridge, Ontario, Canada


05:20 - 05:40pm:   Automatic Detection of Surgical Phases in Laparoscopic Videos
                   Babak Namazi, Ganesh Sankaranarayanan, Venkat Devarajan
                   Department of EE, University of Texas at Arlington, USA;
                   Department of Surgery, Baylor University Medical Center,
                   Dallas, Texas, USA


                             TWO CONCURRENT EVENTS:


05:40 - 07:40pm:   INVITED TUTORIAL & LECTURE:
                   Darknets and Cryptocurrency
                   Andrew Johnston
                   Mandiant (Consultant), a Division of FireEye
                   (LOCATION: Galleria B) <---------- Note the location change


05:40 - 06:20pm:   INVITED LECTURE: GCC'18
                   Cloud of Everything
                   Dr. Assem A. Hamied Moussa
                   President of Success Legacy, SCR & ASDF in Africa;
                   e-Commerce Tech Manager, Chief of Engineering at Egypt Air,
                   Egypt; Member of United Nations for SDG 2030
                   (LOCATION: Galleria C) <---------- Note the location change
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August 2

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

SESSION 11-ICAI: **ARTIFICIAL INTELLIGENCE, PATTERN RECOGNITION, CLUSTERING, AND APPLICATIONS**
Chairs: Dr. Qingguo Wang
         Lipscomb University, Tennessee, USA
August 2, 2018 (Thursday); 08:00am - 10:20am
(LOCATION: Galleria C)

08:00 - 08:20am: Realtime Applications with RTMaps and Bluebox 2.0
Sreeram Venkitachalam, Surya Kollazhi Manghat, Akash Sunil Gaikwad, Niranjan Ravi, Sree Bala Shruthi Bhamidi, and Mohamed El-Sharkawy
ECE, Purdue School of Engineering & Technology, IUPUI, USA

08:20 - 08:40am: Parallel Models of Differential Evolution for Bilevel Programming
T. T. Magalhaes, E. Krempser, H. J. C. Barbosa
National Laboratory for Scientific Computing, Petropolis, RJ, Brazil; Oswaldo Cruz Foundation, Rio de Janeiro, RJ, Brazil; Federal University of Juiz de Fora, Juiz de Fora, MG, Brazil

08:40 - 09:00am: Toward a General-Purpose Artificial Intelligence Test by Combining Diverse Tests
Christopher Pereyda, Lawrence Holder
School of EE & CS, Washington State University, Pullman, Washington, USA

09:00 - 09:20am: The Application of Cluster Analysis in Test Validation for Standard-based High-stakes Assessment
Fen-Lan Tseng, Ming-Chiu Chang, Jia-Min Chiou
Research Center for Psychological and Educational Testing, National Taiwan Normal University, Taipei, Taiwan

09:20 - 09:40am: Using K-Means Clustering to Detect Anomalous File Removes
Bill Anderson, Marc Genty
National Center for Atmospheric Research (NCAR), Boulder, Colorado, USA

09:40 - 10:00am: eCamera: A Real-time Facial Expression Recognition System
Hui Wang, Jiang Lu, Ting Zhang
Department of CE, University of Houston - Clear Lake, Texas, USA; Department of CSET, University of Houston Downtown, Houston, Texas, USA

10:00 - 10:20am: Selecting a Minimum Training Set for Neural Networks using Short-Time Fourier Transform in Detecting Loss of Coolant Accidents in Nuclear Power Plants
David Tian, Jiamei Deng, Gopika Vinod, T. V. Santhosh
School of Computing, Creative Technologies and Engineering, Leeds Beckett University, Leeds, UK; Reactor Safety Division, Bhabha Atomic Research Centre, Mumbai, India

10:20 - 10:40am: **BREAK**

SESSION 12-ICAI: NATURAL LANGUAGE PROCESSING, MACHINE TRANSLATION, INTELLIGENT LINGUISTIC TECHNOLOGIES (ILINTEC'18)
Chair: Dr. Elena B. Kozerenko; Institute of Informatics Problems of the Federal Research Center; Computer Science and Control of the Russian Academy of Sciences, Moscow, Russia
August 2, 2018 (Thursday); 10:40am - 02:20pm
(LOCATION: Galleria C)

10:40 - 11:00am: Semantic Processing of Natural Language Texts Based on PullEnti NER Toolkit
Elena B. Kozerenko, Konstantin I. Kuznetsov, Yulia I. Morozova, and Dmitriy A. Romanov
Institute of Informatics Problems of the Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow, Russia; National Research University "Higher School of Economics", Moscow, Russia

11:00 - 11:20am: AI-Chatbot: Elderly Aid
Guido Tascini
Carducci Study and Research Center, Former UNIVPM AI Lab (Universita Politecnica delle Marche), Italy

11:20 - 11:40am: Can Intelligent Agents Help End the Opioid Crisis?
Wayne E. Smith, Zachary Noah Hendrix
Graduate School of Business and Management, Argosy University, Dallas, Texas, USA;
The University of Texas at Austin, Austin, Texas, USA

11:40 - 12:00pm: Word Classification in Domain on Current Affairs by Feature Similarity based K Nearest Neighbor
Taeho Jo
School of Game, Hongik University, Sejong, Republic of Korea

12:00 - 12:20pm: Modification of AHC Algorithm for Clustering Words into Feature Similarity based Version
Taeho Jo
School of Game, Hongik University, Sejong, Republic of Korea

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

01:00 - 01:20pm: Is Preprocessing of Text Really Worth Your Time for Toxic Comment Classification?
Fahim Mohammad
Intel Corporations, Hillsboro, Oregon, USA

01:20 - 01:40pm: Word Recovery in Word-Lost Documents Using an Artificial Intelligence Methodology
Seongjin Yoo, Junwon Yang, Seungwoon Kim, Tae-Sun Chung
Department of Software, Ajou University, Suwon, South Korea;
Gyeonggi Science High School, Suwon, South Korea

01:40 - 02:00pm: Analytical Textology for the Intelligent Text Processing Systems
Elena B. Kozerenko, Mikhael Yu. Mikheev, Lev I. Erlikh, and Nikolai V. Somin
Institute of Informatics Problems of the Federal Research Center "Computer Science and Control" of the Russian Academy of Sciences, Moscow, Russia; Moscow State University Research Computer Center, Moscow, Russia

02:00 - 02:20pm: Morphosyntactic Features in the Phrase-Based Machine
                   Translation System
                   Elena B. Kozerenko, Alexander A. Khoroshilov, Alexei A.
                   Khoroshilov, Yuri P. Kalinin, and Yuri Nikitin
                   Institute of Informatics Problems, Federal Research Center
                   "Computer Science and Control" of the Russian Academy of
                   Sciences, Moscow, Russia

SESSION 13-ICAI: XVIII TECHNICAL SESSION ON APPLICATIONS OF ADVANCED AI
                   TECHNIQUES TO INFORMATION MANAGEMENT FOR SOLVING
                   COMPANY-RELATED PROBLEMS
                   Co-Chairs: Dr. David de la Fuente* and Dr. Jose A. Olivas**
                           University of Oviedo, Spain;
                           ****University of Castilla - La Mancha, Spain**
                   August 2, 2018 (Thursday); 02:20pm - 03:20pm
                   (LOCATION: Galleria C)

02:20 - 02:40pm: Alert System for Timely Medication Administration
                   C. Puente, A. Sobrino, A. Villa-Monte, J. A. Olivas
                   Advanced Technical Faculty of Engineering - ICAI, Pontificia
                   Comillas University, Madrid, Spain

02:40 - 03:00pm: A Personalized Information Retrieval Approach using Semantic
                   Processing of Text Documents
                   Eric Utrera-Sust, Alfredo Simon-Cuevas, Jose A. Olivas, and
                   Francisco P. Romero
                   Carretera a San Antonio de los Banos, La Habana, Cuba

03:00 - 03:20pm: A New Heuristic Approaches for Multidimensional Multi-Choice
                   Knapsack Problem (MMKP)
                   Alcalde R., Saiz L., Manzanedo M. A., Alonso B.
                   Department of Economics and Business Administration, University
                   of Burgos, Burgos, Spain; Department Civil Engineering,
                   University of Burgos, Burgos, Spain; Department Chemistry,
                   University of Burgos, Burgos, Spain

03:20 - 03:40pm: BREAK

**SESSION 14-ICAI: ARTIFICIAL INTELLIGENCE, PATTERN RECOGNITION, CLUSTERING,
                AND APPLICATIONS
                Chairs: Dr. Howard Schneider, MD* and Prof. Alexandre Moreira Nascimento**
                        * Sheppard Clinic North, Toronto, Canada
                        **FECAP/ITA/UNIFESP - USA and Brazil
                August 2, 2018 (Thursday); 03:40pm - 05:40pm
                (LOCATION: Galleria C)**

03:40 - 04:00pm: Neo-anthropogenic Psychology and AI
                Sean Thoennes
                School of Media Pscyhology, Fielding Graduate University,
                Disney Institute, Orlando, Florida, USA

04:00 - 04:20pm: Stock Ranking with Market Microstructure, Technical Indicators
                and News
                Liang Wang, Khaled Rasheed
                Institute of Artificial Intelligence, University of Georgia, USA

04:20 - 04:40pm: Improving Bankruptcy Prediction Using Oversampling and Feature
                Selection Techniques
                Duaa Alrasheed, Dongsheng Che
                Department of Computer Science, East Stroudsburg University,
                East Stroudsburg, PA, USA

04:40 - 05:00pm: Solution Template: Probability-Mediated Causality, Goal
                Seeking Under Uncertainty
                Gideon Samid
                Department of EE & CS, Case Western Reserve University,
                Cleveland, Ohio, USA; BitMint, LLC., USA

05:00 - 05:20pm: FREE SLOT

05:20 - 05:40pm: FREE SLOT

05:40 - 06:00pm: FREE SLOT

ICDATA'18
CONFERENCE SCHEDULE

The 2018 International Conference on Data Science
(ICDATA'18)

There are a number of other sessions (not listed as part of ICDATA'18 Conference) that are of potential interest to ICDATA'18 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), GCC (Grid, Cloud, and Cluster Computing), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICOMP (Internet Computing & IoT), IKE (Information & Knowledge Eng.), IPCV (Computer Vision), MSV (Modeling, Simulation & Visualization), PDPTA (Parallel & Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of ICDATA'18; these have been scheduled so that selected ICDATA'18 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 29

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03:00p - 07:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)
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July 30

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

08:30 - 08:50am: CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am: CONGRESS OPENING SPEECH - July 30, Monday:
Thriving in an Increasingly Interdisciplinary World
Dr. Stacey Franklin Jones
Award winning aerospace software engineer, computer
scientist, and higher education administrator as Chair,
Dean, Provost, Chancellor, and Vice President (multiple
institutions)
(LOCATION: Galleria B-C)

09:10 - 09:30am: AN IMPACTFUL INITIATIVE - Juy 30, Monday:
Initiatives and Platforms to Alleviate the Challenges
Faced by Researchers & PhD Students in Africa & most
Developing Countries
Nnenna Christine Martin
Research Director, ResearchLink International LLC,
Greensboro, North Carolina, USA
(LOCATION: Galleria B-C)

09:30 - 10:20am: KEYNOTE LECTURE - Juy 30, Monday:
Data Science in Industry and Transport: The black swan
effect and the swan song desire
Prof. Diego Galar
Lulea University of Technology (LTU), Luea, Sweden;
Coordinator of several H2020 projects in cyber physical
systems, Industry 4.0, IoT, & industrial Big Data; Principal
Researcher, Tecnalia, Spain; Visiting Professor, University
of Sunderland (UK); University of Maryland (USA); ...
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

10:40 - 11:00am: ICDATA'18 OPENING REMARKS
Dr. Robert Stahlbock
General Chair ICDATA'18
University of Hamburg, Germany
(LOCATION: Galleria B)

11:00a - 12:20p: INVITED TALK:
Data Revolution: From Data Science to Data Economy
Dr. Peter Geczy
National Institute of Advanced Industrial Science and Technology
(AIST), Japan; Senior Member, IEEE; Member, INFORMS and INNS
July 30, 2018 (Monday)
(LOCATION: Galleria B)

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

SESSION 1-ICDATA: REGRESSION AND CLASSIFICATION
Chairs: Dr. Robert Stahlbock*, Dr. Gary M. Weiss**
*University of Hamburg, Germany;
**Fordham University, New York, USA
July 30, 2018 (Monday); 01:20pm - 03:00pm
(LOCATION: Galleria B)

01:20 - 01:40pm: High Performance Support Vector Machines and its Applications
Taiping He, Tao Wang, Ralph Abbey, Joshua Griffin
SAS Institute Inc., USA

01:40 - 02:00pm: Tuning the Layers of Neural Networks for Robust Generalization
Chun Pang Chiu, Kwok Yee Michael Wong
Hong Kong University of Science and Technology, Hong Kong

02:00 - 02:20pm: FAWCA: A Flexible-greedy Approach to find Well-tuned CNN
Architecture for Image Recognition Problem
Md Mosharaf Hossain, Douglas Talbert, Sheikh Khaled Ghafoor,
and Ramakrishnan Kannan
Tennessee Technological University, Tennessee, USA

02:20 - 02:40pm: Venn Predictors Using Lazy Learners
Ulf Johansson, Tuwe Lofstrom, Hakan Sundell
University of Boras, Sweden

02:40 - 03:00pm: A Multivariate Linear Regression Analysis of in Vitro Testing
Conditions and Brain Biomechanical Response under Shear Loads
Folly Crawford, Osama AbuOmar, Raj Prabhu, Jennifer Fisher
Agricultural and Biological Engineering, Mississippi State
University, Mississippi, USA

03:00 - 03:40pm: POSTER SESSION A
July 30, 2018 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

O. An Interactive Data Analytics System for Employment
Acceptance Recommendation
Opeyemi Fadairo, David Olatunbosun
Virginia International University, Virginia, USA
O. ...

SESSION 2-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***
*Ford Motor Company, USA;
**University of Hamburg, Germany;
***Fordham University, New York, USA
July 30, 2018 (Monday); 03:40pm - 05:20pm
(LOCATION: Galleria B)

03:40 - 04:00pm: Customer Level Predictive Modeling for Accounts Receivable
to Reduce Intervention Actions
Michelle Cheong, Wen Shi
Singapore Management University, Singapore

04:00 - 04:20pm: Sentiment Analysis on Arabic Social Media - a Case study:
Extracting Opinions on Products Made in Egypt
Sara Elshobaky, Noha Adly
Bibliotheca Alexandrina, Egypt

04:20 - 04:40pm: Credit Default Mining Using Combined Machine Learning and
Heuristic Approach
Sheikh Rabiul Islam, William Eberle, Sheikh Khaled Ghafoor
Tennessee Technological University, Tennessee, USA

04:40 - 05:00pm: Mining Significant Terminologies in Online Social Media
Using Parallelized LDA for the Promotion of Cultural Products
Richard de Groof, Haiping Xu, Jurui Zhang, Raymond Liu
University of Massachusetts Dartmouth, Massachusetts, USA

05:00 - 05:20pm: Traffic Jam Direction Field Clustering
Jose Luis Quiroz Fabian, Araceli Reyes-C, Emilio Bravo-G.,
Alejandro Molina Villegas, Louis Betron Tenorio, and
Adriana Perez Espinosa
Centro de Investigacion Educacion en transporte y movilidad
(CITMA), Sociedad Civil, Mexico

05:20 - 07:20pm: **INVITED TALK:**
More Data Less Downtime - The road from description,
prediction towards prescription by the means of digitization
Prof. Diego Galar
Lulea University of Technology, Sweden
July 30, 2018 (Monday)
(LOCATION: Galleria B)

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


SESSION 3-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***
                          *Ford Motor Company, USA;
                          **University of Hamburg, Germany;
                          ***Fordham University, New York, USA
                  July 31, 2018 (Tuesday); 08:00am - 10:20am
                  (LOCATION: Galleria B)

08:00 - 08:20am:  Message Classification for Generalized Disease Incidence
                  Detection with Topologically Derived Concept Embeddings
                  Mark Magumba, Peter Nabende, Ernest Mwebaze
                  Makerere University, Uganda

08:20 - 08:40am:  Multi-label Classification of Single and Clustered Cervical
                  Cells Using Deep Convolutional Networks
                  Melanie Kwon, Mohammed Kuko, Vanessa Martin, Tae Hun Kim,
                  Sue Ellen Martin, Mohammad Pourhomayoun
                  California State University, Los Angeles, California, USA

08:40 - 09:00am:  Data-Driven Exploration of Factors Affecting Federal Student
                  Loan Repayment
                  Somya Mohanty, Bin Luo, Qi Zhang
                  University of North Carolina - Greensboro, NC, USA

09:00 - 09:20am:  Analysis of Tornado Environments using Convolutional Neural
                  Networks
                  Michael McGuire, Todd Moore
                  Towson University, Towson, Maryland, USA

09:20 - 09:40am:  Modelling Radon Variability in Qatar: Challenges and Opportunities
                  Kassim Mwitondi, Ibrahim Al Sadig, Rifaat Hassona, Charles Taylor, Adil Yousef
                  Sheffield Hallam University, Sheffield, UK

09:40 - 10:00am:  On Monitoring Groups of Machines using Martingales: A Case
                  Study in Heat-pumps
                  Shiraz Farouq, Stefan Byttner, Rafik Bouguelia
                  Halmstad University, Sweden

10:00 - 10:20am:  Effective Machine Learning Approach to Detect Groups of
                  Fake Reviewers
                  Nagarajan Prabakar, Jayesh Soni
                  Florida International University, Miami, Florida, USA

10:20 - 10:40am:  BREAK
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SESSION 4-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***
*Ford Motor Company, USA;
**University of Hamburg, Germany;
***Fordham University, New York, USA
July 31, 2018 (Tuesday); 10:40am - 12:20pm
(LOCATION: Galleria B)

10:40 - 11:00am: Evaluating Self-Organizing Map Quality Measures as
Convergence Criteria
Lutz Hamel, Gregory Breard
University of Rhode Island, Rhode Island, USA

11:00 - 11:20am: SwiftVis2: Plotting with Spark using Scala
Mark C. Lewis, Lisa L. Lacher
Department of CS, Trinity University, San Antonio, Texas,
USA; College of Science and Engineering, University of
Houston - Clear Lake, Houston, Texas, USA

11:20 - 11:40am: Organizations' Investment in Cloud Computing: Designing a
Decision Support Platform
Jacques Bou Abdo
Notre Dame University, USA

11:40a - 12:00p: Implementing Data Mining Methods to Predict Diamond Prices
Jose Pena
Fordham University, New York, USA

12:00 - 12:20pm: Analyzing Inventory Data Using K-Means Clustering
Michael Pigman, Hung Le, Urvish Bhagat, Maxfield Thompson,
and Qingguo Wang
Lipscomb University, Tennessee, USA

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

SESSION 5-ICDATA: SPECIAL SESSION ON REAL-WORLD DATA MINING APPLICATIONS, CHALLENGES, AND PERSPECTIVES (Part IV)
Chairs: Dr. Mahmoud Abou-Nasr*, Dr. Robert Stahlbock**, and Dr. Gary M. Weiss***
*Ford Motor Company, USA;
**University of Hamburg, Germany;
***Fordham University, New York, USA
July 31, 2018 (Tuesday); 01:20pm - 03:00pm
(LOCATION: Galleria B)

01:20 - 01:40pm: Assessment of Minorities Access to Finance
Emi Harry, Gary Weiss
Fordham University, New York, USA

01:40 - 02:00pm: Open-Source Neural Network and Wavelet Transform Tools for Server Log Analysis
Tong Lai Yu, Chunyu Liu
School of Computer Science and Engineering, California State University, San Bernardino, California, USA

02:00 - 02:20pm: Recursion Identify Algorithm for Gender Prediction with Chinese Names
Hua Zhao, Fairouz Kamareddine
School of Mathematical and Computer Sciences, Heriot-Watt University, Edinburgh, UK

02:20 - 02:40pm: Maximizing the Processing Rate for Streaming Applications in Apache Storm
Ali Al-Sinayyid, Michelle Zhu
Computer Science, Southern Illinois University of Carbondale, Illinois, USA

02:40 - 03:00pm: Machine Learning Models for Predicting Fracture Toughness of Materials
Birsen Sirkeci, Saishruthi Swaminathan, Tejash Shah, and Ozgur Keles
EE, San Jose State University, California, USA

03:00 - 03:40pm: POSTER SESSION B
July 31, 2018 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

03:40 - 05:40pm: INVITED TUTORIAL:
Predicting with Confidence
Prof. Ulf Johansson
Department of Computer Science and Informatics, Jonkoping University, Sweden
July 31, 2018 (Tuesday)
(LOCATION: Galleria B)

05:40 - 07:40pm: INVITED TUTORIAL:
Machine Learning and Urban Analytics
Dr. Richard Dunks
Founder of Datapolitan, New York, USA
July 31, 2018 (Tuesday)
(LOCATION: Galleria B)

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


08:20 - 09:20am:  INVITED LECTURE:
                  Reducing Cyber Security Non-linearity, Risks and Complexity
                  utilizing Axiomatic Design & Autonomous AI/Machine Learning
                  Dr. John N. Carbone
                  Forcepoint Cyber Security, USA; Senior Director, Technical
                  Solutions and scientific advisor to Forcepoint LLC, Global
                  Governments and Critical Infrastructure division
                  (LOCATION: Galleria B)

09:20 - 10:20am:  INVITED TUTORIAL & LECTURE:
                  Big Data Analytics with Spark
                  Prof. Mark C. Lewis
                  Department of Computer Science, Trinity University,
                  San Antonio, Texas, USA; Author of "Programming and Problem-
                  Solving Using Scala" series of books.
                  (LOCATION: Galleria B)

10:20 - 10:40am:  BREAK

SESSION 6-ICDATA: SPECIAL SESSION ON REAL-WORLD DATA MINING APPLICATIONS,
                  CHALLENGES, AND PERSPECTIVES (Part V)
                  Chairs: Dr. Mahmoud Abou-Nasr*, Dr. Robert Stahlbock**,
                          and Dr. Gary M. Weiss***
                          *Ford Motor Company, USA;
                          **University of Hamburg, Germany;
                          ***Fordham University, New York, USA
                  August 1, 2018 (Wednesday); 10:40am - 12:20pm
                  (LOCATION: Galleria B)

10:40 - 11:00am:  To read or to do? That's the task
                  Zaid Alibadi, Jose Vidal
                  Computer Science and Engineering Department, University of
                  South Carolina, SC, USA

11:00 - 11:20am:  Analysis of EHR Free-text Data with Supervised Deep
                  Neural Networks
                  Duncan Wallace, Tahar Kechadi
                  Computer Science, University College Dublin, Ireland

11:20 - 11:40am:  Stay Point Analysis in Automatic Identification System
                  Trajectory Data
                  Yihan Cai, Menghan Tian, Weidong Yang
                  School of Computer Science, Fudan University, P. R. China

11:40 - 12:00pm:  ML2ESC: A Source Code Generator to Embed Machine Learning
                  Models in Production Environments
                  Oscar Castro, Ines F. Vega-Lopez
                  Univ. Autonoma de Sinaloa, Facultad de Informatica, Mexico

12:00 - 12:20pm:  A Generalized Method for Fault Detection and Diagnosis in
                  SCADA Sensor Data via Classification with Uncertain Labels
                  Md Ridwan Iqbal, Rui Zhao, Qiang Ji, Kristin Bennett
                  Rensselaer Polytechnic Institute, New York, USA

12:20 - 01:20pm:  LUNCH (On Your Own)
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SESSION 7-ICDATA: CLUSTERING, ASSOCIATION + WEB, TEXT, MULTIMEDIA MINING AND
SOFTWARE & TOOLS
Chairs: Diego Galar*, Peter Geczy**, Robert Stahlbock***,
and 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
August 1, 2018 (Wednesday); 01:20pm - 03:00pm
(LOCATION: Galleria B)

01:20 - 01:40pm: Improvement of the Firefly-based K-means Clustering
Algorithm
Longzhuang Li, Lubo Zhou
Texas A&M University - Corpus Christi, Texas, USA

01:40 - 02:00pm: Finding a Balance Between Interestingness and Diversity in
Sequential Pattern Mining
Rina Singh, Jeffrey Graves, Lemuel Waitman, Douglas Talbert
Tennessee Technological University, Tennessee, USA

02:00 - 02:20pm: Modeling Topics on Open Source Apache Spark Repositories
Xiaoran Wang, Leonardo Jimenez Rodriguez, Jilong Kuang
Samsung Research America, USA

02:20 - 02:40pm: Dyn2Vec: Exploiting Dynamic Behaviour using Difference
Networks-based Node Embeddings for Classification
Sandra Mitrovic, Jochen De Weerdt
KU Leuven, Belgium

02:40 - 03:00pm: Anomaly Detection of Elderly Patient Activities in Smart
Homes using a Graph-Based Approach
Ramesh Paudel, William Eberle, Lawrence Holder
Tennessee Technological University, Tennessee, USA

03:00 - 03:40pm: **POSTER SESSION C**
August 1, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

03:40 - 05:40pm: **INVITED LECTURE:**
Applications of Behavior-Based Authentication in the
Business World
Dr. Dawud Gordon
CEO & Co-Founder at TwoSense, New York, USA
(LOCATION: Galleria B)

05:40 - 07:40pm: **INVITED TUTORIAL & LECTURE:**
Darknets and Cryptocurrency
Andrew Johnston
Mandiant (Consultant), a division of FireEye
(LOCATION: Galleria B)

07:40 - 08:00pm: **ICDATA'18 CLOSING REMARKS**
Dr. Robert Stahlbock
General Chair ICDATA'18
University of Hamburg, Germany

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

08:00a - 06:00p:   During this period, ICDATA'18 attendees are encouraged to
                   participate in sessions belonging to BIOCOMP
                   (Bioinformatics), EEE (e-Learning, e-Business,
                   e-Government), FECS (Education), HIMS (Health Informatics),
                   ICAI (Artificial Intelligence), ICOMP (Internet Computing
                   & IoT), IKE (Information & Knowledge Engineering), IPCV
                   (Computer Vision), MSV (Modeling, Simulation & Visualization),
                   or PDPTA (Parallel & Distributed Processing) conferences.
                   These sessions discuss topics that may be of interest to
                   ICDATA'18 attendees.
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IPCV'18 + IKE'18 + HIMS'18 + BIOCOMP'18 + BIOENG'18 CONFERENCE SCHEDULES

The 2018 International Conference on Image Processing,
Computer Vision, & Pattern Recognition (IPCV'18)

+

The 2018 International Conference on Information &
Knowledge Engineering (IKE'18)

+

The 2018 International Conference on Health Informatics
and Medical Systems (HIMS'18)

+

The 2018 International Conference on Bioinformatics &
Computational Biology (BIOCOMP'18)

+

The 2018 International Conference on Biomedical Engineering
and Sciences (BIOENG'18)

Because of significant topical and technical overlap between IPCV'18, IKE'18, HIMS'18, BIOCOMP'18, and BIOENG'18, the schedules of these tracks are merged into one comprehensive 4-day schedule; this has resulted a number of concurrent sessions and so it is important to note the location of each session. It is hoped that this would encourage the participants of these conferences to explore cross-fertilization of ideas. There are also a number of other sessions (not listed as part of these conferences) that are of potential interest to IPCV'18, IKE'18, HIMS'18, BIOCOMP'18, and BIOENG'18 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), ESCS (Embedded & Cyber-physical Systems), FECS (Education), GCC (Grid, Cloud, & Cluster Computing), ICAI (Artificial Intelligence), ICDATA (Data Science), ICOMP (Internet Computing & IoT), MSV (Modeling, Simulation & Visualization), PDPTA (Parallel & Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of IPCV'18, IKE'18, HIMS'18, BIOCOMP'18, and BIOENG'18; these have been scheduled so that selected 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 29

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


08:30 - 08:50am:  CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am:  CONGRESS OPENING SPEECH - July 30, Monday:
                  Thriving in an Increasingly Interdisciplinary World
                  Dr. Stacey Franklin Jones
                  Award winning aerospace software engineer, computer
                  scientist, and higher education administrator as Chair,
                  Dean, Provost, Chancellor, and Vice President (multiple
                  institutions)
                  (LOCATION: Galleria B-C)

09:10 - 09:30am:  AN IMPACTFUL INITIATIVE - Juy 30, Monday:
                  Initiatives and Platforms to Alleviate the Challenges
                  Faced by Researchers & PhD Students in Africa & most
                  Developing Countries
                  Nnenna Christine Martin
                  Research Director, ResearchLink International LLC,
                  Greensboro, North Carolina, USA
                  (LOCATION: Galleria B-C)

09:30 - 10:20am:  KEYNOTE LECTURE - Juy 30, Monday:
                  Data Science in Industry and Transport: The black swan
                  effect and the swan song desire
                  Prof. Diego Galar
                  Lulea University of Technology (LTU), Luea, Sweden;
                  Coordinator of several H2020 projects in cyber physical
                  systems, Industry 4.0, IoT, & industrial Big Data; Principal
                  Researcher, Tecnalia, Spain; Visiting Professor, University
                  of Sunderland (UK); University of Maryland (USA); ...
                  (LOCATION: Galleria B-C)

10:20 - 10:40am:  BREAK


11:00a - 12:20p:  INVITED LECTURE:
                  Data Revolution: From Data Science to Data Economy
                  Dr. Peter Geczy
                  National Institute of Advanced Industrial Science and
                  Technology (AIST), Japan
                  (LOCATION: Galleria B)


12:20 - 01:20pm:  LUNCH (On Your Own)
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SESSION 1-IKE: **INTERNATIONAL WORKSHOP ON ELECTRONICS & INFORMATION TECHNOLOGY; IWEIT-2018**
Chairs: Prof. Cheng-Ying Yang
          University of Taipei, Taiwan
July 30, 2018 (Monday); 01:20pm - 03:00pm
(LOCATION: Lotus Ballroom 3) <---------- Note the location change

01:20 - 01:40pm: The Mathematical Implications of the Design Idea of the Runge-Kutta Method
Wei-Liang Wu
Department of Mathematics, University of Taipei, Taiwan, R.O.C.

01:40 - 02:00pm: Plagiarism Cognition, Attitude and Behavioral Intention: A Trade-Off Analysis
Jih-Hsin Tang, Tsai-Yuan Chung, Ming-Chun Chen
Department of Information Management, National Taipei University of Business, Taiwan, R.O.C.

02:00 - 02:20pm: A Study of the Effect of Block Programming on Students' Logical Reasoning, Computer Attitudes and Programming Achievement
Ah-Fur Lai, Cio-Han Wang
Department of Computer Science, University of Taipei, Taipei, Taiwan, R.O.C.

02:20 - 02:40pm: Blockchain-based Firmware Update Framework for Internet-of-Things Environment
Alexander Yohan, Nai-Wei Lo, Suttawee Achawapong
Department of Information Management, National Taiwan University of Science and Technology, Taipei, Taiwan

02:40 - 03:00pm: Performance Evaluation for the E-Learning System with On-line Social Support
Chin-En Yen, Tsai-Yuan Chung, Ing-Chau Chang, Cheng-Fong Chang, and Cheng-Ying Yang
University of Taipei, Taipei, Taiwan, R.O.C.

03:00 - 03:40pm: **POSTER SESSION A**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
July 30, 2018 (Monday)
(LOCATION: Lotus Ballrooms 1-2)

O.   Development of a Sentiment Extraction Framework for
     Social Media Datasets - Case Study of Fan Pages
     Li-Chen Cheng, Pin-Yi Li
     Department of Computer Science and Information Management,
     Soochow University, Taipei, Taiwan
O.   CNN-based Brain Tumor Segmentation and 3D Visualization
     Jae-Hong So, Boo-Kyeong Choi, Nuwan Madusanka, and
     Heung-Kook Choi
     Department of Digital Anti-Aging Healthcare, Inje University,
     Gimhae, Republic of Korea; Department of CE,
     Inje University, Gimhae, Republic of Korea
O.   Visualization of Hippocampus Regional Atrophy in
     Alzheimer's Disease
     Nuwan Madusanka, Jae-Hong So, Boo-Kyeong Choi, and
     Heung-Kook Choi
     Department of CE, Inje University, Gimhae, Korea;
     Department of Digital Anti-Aging Healthcare, Inje University,
     Gimhae, Korea
O.   Intelligent Computer Vision Tracking and Embedded
     Microcontroller in the Sporting Domain
     Bassam Shaer, Timothy Stewart
     ECE Department, University of West Florida,
     Fort Walton Beach, Florida, USA
O.   Optimization of Situation-Adaptive Policies for Container
     Stacking in an Automated Seaport Container Terminal
     Taekwang Kim, Kwang Ryel Ryu
     Department of ECE, Pusan National University, Korea
O.   ...

SESSION 2-IPCV: **IMAGING SCIENCE AND NOVEL APPLICATIONS**
                        Chairs: Dr. Yan Luo* and Dr. Lei Huang**
                                * National Institutes of Health, USA
                                **Department of EE & CS, Loyola Marymount University, USA
                        July 30, 2018 (Monday); 03:40pm - 07:00pm
                        (LOCATION: Lotus Ballroom 3)

03:40 - 04:00pm: Software Development for Unsupervised Approach to
                    Identification of a Multi Temporal Spatial Analysis Model
                    Mauro Mazzei
                    National Research Council - Institute for Systems
                    Analysis and Computer Science, Rome, Italy

04:00 - 04:20pm: Applying Genetic Algorithms to Generating Paintings Based
                    on Images
                    Alexander Hansen, Mark C. Lewis
                    Department of Computer Science, Trinity University,
                    San Antonio, Texas, USA

04:20 - 04:40pm: Encrypting ImageNet with Chaotic Logistic Maps and AES
                    in ECB Mode
                    Pablo Rivas-Perea, Patrick Handley
                    IBM Corporation, USA;
                    Department of Computer Science,
                    Marist College, Poughkeepsie, New York, USA

04:40 - 05:00pm: A Tool for Detection and Analysis of a Human Face for
                    Aesthetical Quality Using Mobile Devices
                    Shuyi Zhao, Scott King, Dulal Kar
                    Texas A&M University-Corpus Christi, Texas, USA

05:00 - 05:20pm: Literature-Based Biomedical Image Retrieval with Multimodal
                    Query Expansion and Data Fusion Based on Relevance
                    Feedback (RF)
                    Md Mahmudur Rahman
                    Computer Science Department, Morgan State University,
                    Baltimore, Maryland, USA

05:20 - 05:40pm: Forensic Data Collection Techniques for Fingerprint
                    Identification
                    Ifeoma Ugochi Ohaeri, Micheal Bukohwo Esiefarienrhe
                    Department of Computer Science,
                    North-West University, Mafikeng Campus, South Africa

05:40 - 06:00pm: Arabic Handwritten Characters Recognition Using Support
                    Vector Machine, Normalized Central Moments, and Local
                    Binary Patterns
                    Hassan Althobaiti, Chao Lu
                    Department of Computer and Information Sciences,
                    Towson University, Towson, Maryland, USA

06:00 - 06:20pm: Non-Dominant Object Recognition using Convolutional
                    Neural Networks
                    Daniel Oleas, Lei Huang
                    Department of EE & CS,
                    Loyola Marymount University,
                    Los Angeles, California, USA

06:20 - 06:40pm: Application of Machine Learning Technique to Nowcast
                   Severe Atmospheric Event
                   Himadri Chakrabarty (Bhattacharyya), Sonia Bhattacharya
                   Department of CS, Surendranath College, Calcutta, India;
                   Institute of Radiophysics and Electronics Calcutta
                   University, Kolkata, India; Department of Radio
                   Physics & Electronics, University of Calcutta, India

06:40 – 07:00pm: 2D and 3D Face Analysis for Ticketless Rail Travel
                   Lyndon Smith, Wenhao Zhang, Melvyn Smith
                   Centre for Machine Vision, Bristol Robotics Laboratory,
                   Department of Engineering Design & Mathematics,
                   University of the West of England, Bristol, UK

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

SESSION 3-IKE: INFORMATION RETRIEVAL, DATABASES, DATA ANALYTICS,
                   & NOVEL APPLICATIONS
                   Chairs: Prof. Deok Hee Nam* and Prof. Shahriar Movafaghi**
                           * Professor of CSE, Wilberforce University, Ohio, USA
                           **Computer Information Technology, Southern New
                             Hampshire University, Manchester, USA
                   July 31, 2018 (Tuesday); 08:00am - 09:40am
                   (LOCATION: Lotus Ballroom 3)

08:00 - 08:20am: Understanding Kid's Digital Twin
                   Anahita Mohammadi, Mina Ghanaatian Jahromi, Ali
                   Jabbari Jahromi, Hamidreza Khademi, Azadeh Alighanbar,
                   Bita Hamzavi, Maliheh Ghanizadeh, Hami Horriat, and
                   Mohammad Mehdi Khabiri
                   Morphotect Design Group, R&D Department, Toronto, ON,
                   Canada; Department of Architecture & Design (DAD),
                   Polytechnic of Turin, Turin, Italy

08:20 - 08:40am: Solar and Home Battery Based Electricity Spot Market
                   for Saudi Arabia
                   Fathe Jeribi, Sungchul Hong
                   CIS Department, Towson University, Maryland, USA

08:40 - 09:00am: The Case for NoSQL on a Single Desktop
                   Ryan D. L. Engle, Brent T. Langhals, Michael R. Grimaila,
                   and Douglas D. Hodson
                   Air Force Institute of Technology (AFIT),
                   Wright-Patterson AFB, Ohio, USA; Information Resource
                   Management, Air Force Institute of Technology (AFIT),
                   Wright-Patterson AFB, Ohio, USA; Head of the Systems
                   Engineering and Management Department, Air Force
                   Institute of Technology (AFIT), Wright-Patterson AFB,
                   Ohio, USA; CE, Air Force Institute of Technology (AFIT),
                   Wright-Patterson AFB, Ohio, USA

09:00 - 09:20am: Predicting Energy Spectrum of Prompt Neutrons Emitted in
                   Fission Using System Reduction with Neurofuzzy Systems
                   Deok Hee Nam
                   ECS, Wilberforce University, Wilberforce, Ohio, USA

09:20 - 09:40am: Data Analytics: The Big Data Analysis Process (BDAP)
                   Architecture
                   James A. Crowder
                   Colorado Engineering, Inc., Colorado Springs, Colorado, USA

SESSION 4-IPCV: IMAGE & SIGNAL PROCESSING + FEATURE EXTRACTION AND
CLASSIFICATION + APPLICATIONS
Chairs: Prof. Hong Liu* and Prof. Prakash Ranganathan**
       * Charles & Jean Smith Chair in Biomedical Engineering,
        George Lynn Cross Professor of ECE, Director of Advanced
        Medical Imaging Center and Core Facility, University of
        Oklahoma, Norman, Oklahoma, USA
      **Director for Cyber Security Programs, School of EECS,
        University of North Dakota, USA
July 31, 2018 (Tuesday); 09:40am - 11:20am
(LOCATION: Lotus Ballroom 3)

09:40 - 10:00am: A Novel Modality of Compton Scattering Tomography, Image
Formation and Reconstruction
Cecilia Tarpau, Mai K. Nguyen
Laboratoire Equipes de Traitement de l'Information et Sys.
(ETIS), Universite de Cergy Pontoise, ENSEA, France

10:00 - 10:20am: Edge Detection and Dominant Color Masking of Thermal
Imagery Data Sets
Katelyn Koiner, Andrew Rosener, Prakash Ranganathan
Department of Electrical Engineering, University of
North Dakota, Grand Forks, North Dakota, USA

10:20 – 10:40am: An Efficient Clustering for Epipolar Geometry based MOD
Yeongyu Choi, Ju H. Park, Ho-Youl Jung
Department of Information and Communication Engineering,
Yeungnam University, Gyeongsan, Republic of Korea;
Department of EE, Yeungnam University, Republic of Korea

10:40 - 11:00am: Decision Making and Decision Fusion Using Grey Rational
Analysis in Layered Sensing Systems
Bakhita Salman, Mohammed I. Thanoon, Saleh Zein-Sabatto,
and Fenghui Yao
Department of ECE, College of Engineering, Tennessee
State University, Tennessee, USA; Department of CS,
College of Engineering, Tennessee State University,
Tennessee, USA

11:00 - 11:20am: A Comparative Study of Autoencoders against Adversarial
Attacks
I-Ting Chen, Birsen Sirkeci-Mergen
EE, San Jose State University, San Jose, California, USA

SESSION 5-IPCV: **COMPUTER VISION, RECOGNITION & DETECTION SYSTEMS +**
                        VIDEO PROCESSING AND APPLICATIONS
                        Chairs: Prof. Belaid Abdel* and Prof. Himadri Chakrabarty**
                              * Universite Lorraine-CNRS-LORIA, France
                              **Head of Department of Computer Science, Surendranath
                                College, Calcutta University, Kolkata, India
                        July 31, 2018 (Tuesday); 11:20am - 12:40pm
                        (LOCATION: Lotus Ballroom 3)

11:20 - 11:40am: Metrics for Complete Evaluation of OCR Performance
Romain Karpinski, Devashish Lohani, Abdel Belaid
Universite de Lorraine - CNRS - LORIA,
Vandoeuvre-Les-Nancy, France

11:40 - 12:00pm: Automated Industrial Inspection of Textured Optical
Components Using Computer Vision Technologies
Hong-Dar Lin, Hsing-Lun Chen
Department of Industrial Engineering and Management,
Chaoyang University of Technology, Taichung, Taiwan

12:00 - 12:20pm: Named Entity Recognition by Neural Prediction
Nouha Hammadi, Abdel Belaid, Yolande Belaid
University of Lorraine - CNRS - LORIA, France

12:20 - 12:40pm: High Dynamic Range Video Processing Using Temporal
Bidirectional Similarity and Coherency Sensitive Hashing
Kung-Hsuan Lo, Jin-Jang Leou
Department of Computer Science and Information Engineering,
National Chung Cheng University, Taiwan, R.O.C.

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

SESSION 6-BIOCOMP: BIOINFORMATICS AND NOVEL ALGORITHMS
                    Chairs: Dr. Jianhong Zhou* and Dr. Bogdan Armaselu**
                            * Center for Systems Biology, Soochow University, Jiangsu,
                              China; & Center for Computational Biology and
                              Bioinformatics, Indiana University, Indiana, USA
                            **Spectral MD, USA
                    July 31, 2018 (Tuesday); 12:40pm - 02:20pm
                    (LOCATION: Lotus Ballroom 3)

12:40 – 01:00pm: SMF: Approximate Algorithm for the Planted (l, d) Motif Finding
                   Problem in DNA Sequences
                   Hasnaa Al-Shaikhli, Elise de Doncker
                   Department of CS, Western Michigan University, Kalamazoo,
                   Michigan, USA; CS Department, Al-Nahrain University,
                   Baghdad, Iraq

01:00 – 01:20pm: High Performance Computation of the Hybrid MoM/FDTD Code for
                   Health Hazardous Effects due to Mobile Base Station Radiation
                   M. Eldesouki, H. H. Abdullah, H. E. Eldeeb, H. A. Elsadeke, N. Bagherzadeh
                   Electronics Research Institute, Giza, Egypt; The Henry Samueli
                   School of Engineering, Electrical Engineering and Computer Science
                   Department, University of California, Irvine, California, USA

01:20 - 01:40pm: Non-Small-Cell Lung Cancer Gene Expression Network
                   Inference using Gaussian Graphic Models
                   Haitao Zhao, Zhong-Hui Duan
                   Integrated Bioscience Program, Department of CS,
                   The University of Akron, Akron, Ohio, USA

01:40 - 02:00pm: A Fast and Effective Heuristic Algorithm for Finding
                   Quorum Planted (l, d, q)-Motifs
                   Chung-E Wang
                   Department of CS, California State University,
                   Sacramento, California, USA

02:00 - 02:20pm: Framework, Barriers, and Proposed Solutions for Engaging
                   Students in Bioinformatics Research
                   Sara G. Cline, Jeremy W. Prokop
                   Mathematics, Computer, and Natural Sciences, Athens State
                   University, Athens, Alabama, USA; Pediatrics and Human
                   Development, Michigan State University, Grand Rapids,
                   Michigan, USA; Pharmacology & Toxicology,
                   Michigan State University, East Lansing, Michigan, USA

SESSION 7-HIMS: **HEALTH INFORMATICS, HEALTHCARE & PUBLIC HEALTH**
RELATED SYSTEMS + MEDICAL SYSTEMS & DEVICES
Chairs: Prof. Eamon Doherty* and Arianna Schuler Scott**
* Formerly at Fairleigh Dickinson University, USA
**University of Oxford, UK
July 31, 2018 (Tuesday); 02:20pm - 04:40pm
(LOCATION: Lotus Ballroom 3)

02:20 - 02:40pm: An Automated Approach for Rating the Content Quality of Web
Healthcare Information: A case study on Depression
treatment web pages
Yanjun Zhang, Jacquelyn Burkell, Hong Cui, Robert E. Mercer
Faculty of Information and Media Studies, University of
Western Ontario, London, Ontario, Canada; Department of CS,
University of Western Ontario, London, Ontario, Canada;
School of Information Resources/Library Science,
University of Arizona, Tucson, Arizona, USA

02:40 - 03:00pm: Newsvendor Games with Budget Constraint in a Multi-
Hospital System
Min Luo, Xiaoqiang Cai
School of Science and Engineering, The Chinese University
of Hong Kong, Guangdong, P. R. China; School of Management,
University of Science & Technology of China, P. R. China;
Shenzhen Research Institute of Big Data, The Chinese
University of Hong Kong, Guangdong, P. R. China

03:00 - 03:40pm: **POSTER SESSION B**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
July 31, 2018 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

O. Build an Online Homeless Database
Ting Liu, Luis Concepcion-Bido, Caleb Ryor, Travis Brodbeck
Siena College, Albany, New York, USA
O. Electrode Placement on Forearm for Finger Korean Number
Gesture Recognition using Surface EMG System
J. Park, C. Kwon
Department of Medical IT Eng., Soonchunhyang University,
Asan, ChungNam, Republic of Korea
O. Symbolic Aggregate Approximation (SAX) Based Customer
Baseline Load (CBL) Method
Sae-Hyun Koh, Sangmin Ryu, Juyoung Chong, Sung-Kwan Joo
School Of EE, Korea University, Seoul, Republic of Korea
O. A Study on the Improvement of Cognitive Function by Analog-
based Board Game & Four Sensory Stimulus Digital Convergence
Jeong-Won Kang, Ki Young Lee
Department of Information and Telecommunications,
Incheon National University, Republic of Korea
O. Feature Extraction and Data Validation Analysis for
Clustering Physical Stability of Trainee
Sang-Ho Hwang, Sanghun Yun, Sang-Ho Lee, Won-Seok Kang
Wellness Convergence Research Center, DGIST, Repub. of Korea
O. ...

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SESSION 7-HIMS:    Continued ... HEALTH INFORMATICS, HEALTHCARE &
                   PUBLIC HEALTH RELATED SYSTEMS + MEDICAL SYSTEMS
                   Chairs: Prof. Eamon Doherty* and Arianna Schuler Scott**
                           * Formerly at Fairleigh Dickinson University, USA
                           **University of Oxford, UK
                   July 31, 2018 (Tuesday); 02:20pm - 04:40pm
                   (LOCATION: Lotus Ballroom 3)
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03:40 - 04:00pm: Predicting Mortality of Sepsis Patients in a Multi-Site
                    Healthcare System using Supervised Machine Learning
                    Brittany Bogle, Ricardo Balduino, D. M. Wolk, H. A. Farag,
                    Shravan Kethireddy, Avijit Chatterjee, and Vida Abedi
                    Data Science Elite Team, IBM Corporation, USA; Geisinger
                    Diagnostic Medicine Institute, Danville, PA, USA; Clinical
                    & Molecular Microbiology, Geisinger Diagnostic Medicine
                    Institute, Danville, PA, USA; Northeast Georgia Health System,
                    Gainesville, USA; Biomedical & Translational Informatics
                    Institute, Geisinger Health System, Danville, PA, USA;
                    Biocomplexity Institute, Virginia Tech, Blacksburg, USA

04:00 - 04:20pm: ARMStrokes: A Mobile System for Customized Everyday Upper
                    Limb Rehabilitation
                    Yahya Alqahtani, Sonia Lawson, Ziying Tang, and
                    Jinjuan Heidi Feng
                    Department of CIS, Towson Univeristy, Maryland, USA;
                    Department of Occupational Therapy & Occupational Science,
                    Towson Univeristy, Maryland, USA

04:20 – 04:40pm: A Study of Evidence-Based Practice Level, Knowledge and
                    Implementation Amongst Health Care Practitioners in Riyadh
                    City Hospitals
                    Deena M. Barakah, Haifa M. A. Barakah, Reem S. Alwakeel
                    Dental Clinic Department, King Saud Medical City, Ministry
                    of Health, Riyadh, Saudi Arabia; College of Dentistry,
                    King Saud University, Riyadh, Saudi Arabia

04:40 - 05:40pm: 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,**
**   & Department of CS; Colorado State University,**
**   Fort Collins, Colorado, USA**
**   (LOCATION: Galleria C) <---------- Note the location change**

05:40 - 06:30pm: KEYNOTE/INVITED LECTURE:
**   Applications of AI: A Pragmatic Perspective**
**   Prof. Andrew Ware**
**   Professor of Computing, University of South Wales, UK;**
**   Regional Director of Techno Camps, UK**
**   (LOCATION: Galleria C) <---------- Note the location change**

August 1

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


SESSION 8-HIMS:    HEALTH INFORMATICS, HEALTHCARE AND PUBLIC HEALTH
                   RELATED SYSTEMS
                   Chairs: Dr. Fabian Garcia-Nocetti* and Prof. Jigang Liu**
                           * IIMAS, National Autonomous University of Mexico, Mexico
                           **Director of Graduate Programs, Department of Computer Science
                             and Cybersecurity, Metropolitan State University, MN, USA
                   August 1, 2018 (Wednesday); 08:00am - 10:20am
                   (LOCATION: Lotus Ballroom 3)


08:00 - 08:20am:   Shaping Future Patient-centered Healthcare Research
                   through a Modified Delphi Process
                   Huanmei Wu, Hao Yu, Tammy Toscosa, Amy Miller, and
                   Brad Doebbeling
                   Department of BioHealth Informatics, School of Informatics
                   and Computing, IUPUI, Indianapolis, Indiana, USA;
                   Indianapolis Parkview Mirro Center for Research & Innovation,
                   Indiana, USA;  School of Science Health Care Delivery and
                   Department of Biomedical Informatics, College of Health
                   Solutions, Arizona State University, Phoenix, Arizona, USA

08:20 - 08:40am:   Securing Electronic Health Records (EHRs) in OpenStack
                   Ashwini Devi Ventrapragada, Jigang Liu
                   Metropolitan State University, USA

08:40 - 09:00am:   Using IoT in Emergency Mobile Health Care
                   Daniela America da Silva, Gildarcio Goncalves Sousa,
                   Samara Cardoso dos Santos, Marcelo Paiva Ramos,
                   Alexandre Nascimento, Johnny Marques, Luiz Alberto Vieira
                   Dias, Adilson Marques da Cunha, Paulo Marcelo Tasinaffo
                   Brazilian Aeronautics Institute of Technology, Sao Jose dos
                   Campos, Sao Paulo, Brazil

09:00 - 09:20am:   On Development of Health Care Digital Libraries and Health
                   Care Data Analytics: An Adaptive Algorithmic Approach
                   Anastasia-Dimitra Lipitakis, Evangelia A.E.C. Lipitakis
                   Department of Informatics and Telematics, Harokopio University,
                   Athens, Hellas, Greece;  Kent Business School,
                   University of Kent, Canterbury, England


09:20 - 09:40am:   Dynamic Consent in Cybersecurity for Health
                   Arianna Schuler Scott, Michael Goldsmith, Sadie Creese,
                   Harriet Teare, and Jane Kaye
                   Department of CS, University of Oxford, UK; Nuffield Department
                   of Population Health, University of Oxford, UK


09:40 - 10:00am:   Research on an Information Sharing System Considering Urgency
                   and Processing Omission Prevention in the Home Care Field
                   Yuta Sakasai, Yuya Totsuka, Manabu Kurosawa, Jun Sawamoto,
                   and Hiroshi Yajima
                   School of Science & Technology for Future Life, Tokyo
                   Denki University, Adaci-Tokyo, Japan;  Regional Cooperative
                   Research Center, Iwate Prefecture University, Japan

10:00 - 10:20am:   FREE SLOT
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SESSION 9-IPCV: **IMAGE PROCESSING + FEATURE EXTRACTION AND CLASSIFICATION AND APPLICATIONS**
Chairs: Prof. Aura Conci* and Prof. Praveen Meduri**
          * Universidade Federal Fluminense, Brazil
          **California State University, Sacramento, USA
August 1, 2018 (Wednesday); 10:20am - 12:40pm
(LOCATION: Lotus Ballroom 3)

10:20 - 10:40am: Object Localization and Activities Identification using Attribute Details in Smart Meeting Rooms
                  Dian Andriana, Ary Setijadi Prihatmanto, Egi Muhammad Idris Hidayat, Carmadi Machbub
                  Research Center for Informatics, Indonesian Institute of Sciences, Bandung, Indonesia; School of EE & Informatics, Institut Teknologi Bandung, Bandung, Indonesia

10:40 - 11:00am: On Image Registration for Study of Thyroid Disorders by Infrared Exams
                  Jose R. Gonzalez Montero, Yanexis Pupo Toledo, W. G. Fiirst, Maira Beatriz Hernandez Moran, Aura Conci, Trueman Machenry
                  Computing Institute, Federal Fluminense University, Rio de Janeiro, Brazil; Federal Institute of Mato Grosso, Mato Groso, Brazil; Department of Mathematics & Statistics, York University, Toronto, Canada

11:00 - 11:20am: A Haar-Cascade Classifier based Smart Parking System
                  Praveen Meduri, Eric Telles
                  Department of EEE, California State University, Sacramento, California, USA

11:20 - 11:40am: Spatial Location of 3D Reconstruted Subthalamic Nucleus
                  Shijun Tang, Rajan Alex, Shijun Tang
                  Department of CS, University of Texas at Austin, USA; School of Engineering, Computer Science & Mathematics, West Texas A&M University, Canyon, Texas, USA

11:40 - 12:00pm: Automating the Segmentation of Necrotized Regions in Cassava Root Images
                  Flavia Delmira Ninsiima, Ernest Mwebaze
                  School of Computing & Informatics Technology, Makerere University, Kampala, Uganda

12:00 - 12:20pm: Automated Cell Nuclei Segmentation in Overlapping Cervical Images Using Deep Learning Model
                  Arti Taneja, Priya Ranjan, Amit Ujlayan
                  Amity Institute of Information Technology, Gautam Budha University, India; Amity University, India; Gautam Budha University, India

12:20 - 12:40pm: Semantic Labelling and Instance Segmentation Using Weakly Supervised Convolutional Neural Network
                  Abdul Wahid, Hyo Jong Lee
                  Department of Computer Science and Engineering, Chonbuk National University, Jeonju, South Korea

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

SESSION 10-IKE: **INFORMATION & KNOWLEDGE EXTRACTION & ENGINEERING,**
                        PREDICTION METHODS, DATA MINING, & NOVEL APPLICATIONS
                        Chairs: Dr. Promise Mvelase* and Shamaila Samreen**
                                * CHPC Meraka Institute, South Africa
                                **University of Engineering & Technology, Lahore, Pakistan
                        August 1, 2018 (Wednesday); 01:20pm - 03:00pm
                        (LOCATION: Lotus Ballroom 3)

01:20 - 01:40pm: Knowledge-Based Design Quality in Software Reverse
                   Engineering: An Introductory Review
                   Chung-Yang Chen, Chih-Ying Yang, Kuo-Wei Wu
                   Department of Information Management, National Central
                   University, Taiwan; HTC Corporation, Taoyuan City, Taiwan;
                   Department of Industrial Engineering,
                   National Taiwan University, Taiwan

01:40 - 02:00pm: Extracting Keywords from News Articles using Feature
                   Similarity based K Nearest Neighbor
                   Taeho Jo
                   School of Game, Hongik University, Sejong, South Korea

02:00 - 02:20pm: Drivers of Reviews and Ratings on Connected Commerce
                   Websites
                   Gurpreet Singh Bawa
                   Accenture Company, Global Professional Services and
                   Consulting Company

02:20 - 02:40pm: Modification of K Nearest Neighbor into String Vector
                   Based Version for Classifying Words in Current Affairs
                   Taeho Jo
                   School of Game, Hongik University, Republic of Korea

02:40 - 03:00pm: String Vector Based AHC Algorithm For Word Clustering
                   from News Articles
                   Taeho Jo
                   School of Game, Hongik University, Republic of Korea

03:00 - 03:40pm: POSTER SESSION C
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 1, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

O. Combining Advanced Machine Learning with Situation
    Awareness for Big Data Health Informatics Applications
    Kenny C. Gross, Dieter Gawlick
    Oracle Corporation, USA
O. Molecular Modeling of B-lactam Antibiotics Inclusion
    Systems with Cyclodextrins in Solution
    Mikolaj Mizera, Irena Oszczapowicz, J. Cielecka-Piontek
    Department of Pharmaceutical Chemistry, Faculty of
    Pharmacy, Poznan University of Medical Sciences, Pozna,
    Poland; Department of Modified Antibiotics, Institute of
    Biotechnology and Antibiotics, Warszawa, Poland
O. Influence of Size and Placement of Electrodes on the
    Efficiency of Transscleral Ocular Iontophoresis
    Sang Jun Lee, Chany Lee, Chang-Hwan Im
    Department of Biomedical Engineering, Hanyang University,
    Seoul, Republic of Korea
O. pH Measurement using Red, Green, and Blue Values
    Han-Byeol Oh, Ji-Sun Kim, Jae-Hoon Jun
    Department of Biomedical Engineering, BK21 Plus Research
    Institute of Biomedical Engineering, College of Biomedical
    & Health Science, Konkuk University, Republic of Korea
O. Effect of a Cognitive Task on Evaluation Standing Balance
    Ability of the Elderly using Wii Balance Board
    Taeho Kim, Jeongwoo Seo, Junsoo Lee, Junggil Kim,
    Jinseung Choi, and Gyerae Tack
    Department of Biomedical Engineering, Konkuk University,
    Republic of Korea; BK21 Plus Research Institute of Biomedical
    Engineering, Konkuk University, Chungju, Republic of Korea
O. ...

SESSION 11-BIOENG: BIOMEDICAL ENGINEERING, METHODOLOGIES, AND NOVEL APPLICATIONS
Chairs: Chuanjuan Tao;
Senior Staff Associate, Center for Genome Technology
& Biomolecular Engineering, Department of Chemical
Engineering, Columbia University, New York, USA
August 1, 2018 (Wednesday); 03:40pm - 06:20pm
(LOCATION: Lotus Ballroom 3)

03:40 - 04:00pm: The Difference of Physiological Signals Between Regular
and Occasional Exercisers during Cycling Exercise
Ching-Ting Tseng, Chii-Wen Jao, Yen-Ling Chen,
Chao-Wen Huang, Po-Shan Wang, Yu-Te Wu
Department of Neurology, Municipal Gandau Hospital,
Taipei, Taiwan; Institution of Biophotonics, National
Yang-Ming University, Taipei, Taiwan

04:00 - 04:20pm: Control of Articulated Mechanical Prosthetics
Federico Parra De Nova, Samuel Katz, David Miller,
Chris Eads, Daren Wilcox
Kennesaw State University, Marietta, Georgia, USA

04:20 - 04:40pm: HRV Descriptors for Fetal Distress Assessment in
Pregnancy with Fetal Growth Restriction
B. P. Guzman-Velazquez, J. A. Diaz-Mendez, Igor Lakhno
National Institute of Astrophysics, Optics and Electronics,
Puebla, Mexico; Department of Perinatology, Obstetrics
and Gynecology, Department of Kharkiv Medical Academy of
Postgraduate Education, Kharkiv, Ukraine

04:40 - 05:00pm: Analyze the Difference Between Alzheimer's Disease, Mild
Cognitive Impairment and Normal People by Using Fractal
Dimensions and Small-World Network
Wei-Kai Lee, Chao-Wen Huang, Yen-Ling Chen, Po-Shan Wang,
and Yu-Te Wu
Department of Biomedical Imaging & Radiological Sciences,
National Yang-Ming University, Taipei, Taiwan;
Institution of Biophotonics, National Yang-Ming University,
Taipei, Taiwan; Department of Medicine, Municipal Gandau
Hospital, Taipei, Taiwan

05:00 - 05:20pm: Single-Molecule Electronic Detection of Nucleic Acids and
Proteins: A New Paradigm for Genetic Analyses and
Biomedical Applications
Chuanjuan Tao, Shiv Kumar, Minchen Chien, Youngjin Cho,
Zengmin Li, Shundi Shi, Irina Morozova, Sergey Kalachikov,
James J. Russo, Jingyue Ju
Center for Genome Technology and Biomolecular Engineering,
Departments of Chemical Engineering and Pharmacology,
Columbia University, New York, USA

05:20 - 05:40pm: Autoimmune Biomarkers and AI Algorithms Could Lead to a
New Diagnosis and Treatment Options in Glaucoma
F. Grus
Experimental and Translational Ophthalmology,
University Medical Center, Mainz, Germany

05:40 - 06:00pm: Characterization of Disuse Mouse Bone Structural Change
by Nuclear Magnetic Resonance
Qingwen Ni, Douglas Holland, Xiaodu Wang
Texas A&M International University, Texas, USA;
University of Texas at San Antonio, Texas, USA

06:00 - 06:20pm: Minimal Path Based Particle Tracking in Low SNR
                  Fluorescence Microscopy Image
                  Sheng Lu, Fan Yang, Chenglei Peng, Sidan Du, Yang Li
                  School of Electronic Science and Engineering,
                  Nanjing University, P. R. China

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

SESSION 12-IPCV: COMPUTER VISION, RECOGNITION SYSTEMS + APPLICATIONS
Chair: Dr. Lei Huang
         Department of EE & CS, Loyola Marymount University, USA
August 2, 2018 (Thursday); 08:00am - 09:00am
(LOCATION: Lotus Ballroom 3)

08:00 - 08:20am: FREE SLOT

08:20 - 08:40am: Convolutional Neural Network-based Human Recognition for
Vision Occupancy Sensors
Seung Soo Lee, Manbae Kim
Department of Computer & Communications Engineering,
Kangwon National University, Chunchon, Republic of Korea

08:40 - 09:00am: Towards Creation of a Curl Pattern Recognition System
Kymberlee Hill, Abimbola Adesola, Prajjwal Dangal, and
Gloria Washington
Biometrics Lab, Howard University, Washington, DC, USA

SESSION 13-IKE: INFORMATION & KNOWLEDGE EXTRACTION & ENGINEERING
Chair: Prof. Suhair H. Amer
         Department of Computer Science, Southeast Missouri
         State University, Cape Girardeau, Missouri, USA
August 2, 2018 (Thursday); 09:00am - 10:40am
(LOCATION: Lotus Ballroom 3)

09:00 - 09:20am: Chaos Game for Data Compression and Encoding
Jonathan Dixon, Christer Karlsson
Department of Mathematics and Computer Science,
South Dakota School of Mines and Technology,
Rapid City, South Dakota, USA

09:20 - 09:40am: An Online Interactive Database Platform for Career
Searching
Brandon St. Amour, Zizhong John Wang
Department of Mathematics and Computer Science,
Virginia Wesleyan University, Virginia Beach, USA

09:40 - 10:00am: Challenges Archivists Encounter Adopting Cloud Storage
for Digital Preservation
Debra A. Bowen
Computer Science and Information Systems,
National University, San Diego, California, USA

10:00 - 10:20am: Design and Implementation of a Library Database using
a Prefix Tree - Undergraduate Sophomore Experience
Suhair Amer, Adam Thomas, Grant Reid, Andrew Banning
Department of Computer Science, Southeast Missouri State
University, Missouri, USA

10:20 - 10:40am: A Data Integration and Analysis System for Safe
Route Planning
Reza Sarraf, Michael P. Mcguire
Department of Computer and Information Sciences,
Towson University, Towson, Maryland, USA

SESSION 14-IKE: **INFORMATION & KNOWLEDGE EXTRACTION & ENGINEERING, PREDICTION METHODS AND DATA SCIENCE**
Chairs: Prof. Dr. Olaf Droegehorn
        Software-Engineering & Internet Technologies,
        Harz University of Applied Sciences, Germany
August 2, 2018 (Thursday); 10:40am - 12:40pm
(LOCATION: Lotus Ballroom 3)

10:40 - 11:00am: Algorithms in Law Enforcement: Toward Optimal Patrol and Deployment Algorithms
Terry Beau Elliott, Abigail Payne, Travis Atkison, and Randy Smith
CS Department, University of Alabama, Tuscaloosa, USA

11:00 - 11:20am: Prediction of Review Sentiment and Detection of Fake Reviews in Social Media
Amani Karumanchi, Jing Deng, Lixin Fu
CS Department, University of North Carolina at Greensboro, North Carolina, USA

11:20 - 11:40am: Implementation of Comb Filter to Improve Detection Performance in Phase-tagged SSVEP-based Brain Computer Interface
Po-Lei Lee, Kuo-Kai Shyu, Hao-Teng Hsu
Department of EE, National Central University, Taiwan

11:40 - 12:00pm: Intelligent Transportation Systems and Vehicular Sensor Networks: A Transportation Quality Adaptive Algorithmic Approach
Anastasia-Dimitra Lipitakis, Evangelia A.E.C. Lipitakis
Department of Informatics and Telematics, Harokopio University, Athens, Hellas, Greece; Kent Business School, University of Kent, Canterbury, England

12:00 - 12:20pm: A Metric to Determine Foundational User Reviews
Sami Alshehri, James P. Buckley
CS Department, University of Dayton, Dayton, Ohio, USA

12:20 - 12:40pm: Big Data Architecture Design for Pattern of Social Life Logging
Hana Lee, Youseop Jo, Ayoung Cho, Hyunwoo Lee, Young Ho Jo, and Mincheol Whang
Department of Emotion Engineering, Sangmyung University, Seoul, Republic of Korea; Team of Technology Development, Emotion Science Center, Seoul, Republic of Korea; Department of Intelligent Engineering Informatics for Human, Sangmyung University, Seoul, Republic of Korea

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

SESSION 15-HIMS: **MEDICAL SYSTEMS, DEVICES & SERVICES + MONITORING SYSTEMS + REHABILITATION TOOLS & HEALTH INFORMATICS**
Chairs: Patrick Philipp* and Dr. Connie Man-Ching Yuen**
* Karlsruhe Institute of Technology (KIT), Institute for Anthropomatics and Robotics (IAR), Germany
**Vocational Training Council, Hong Kong, P. R. China
August 2, 2018 (Thursday); 01:20pm - 03:40pm
(LOCATION: Lotus Ballroom 3)

01:20 - 01:40pm: SpeakMore: A Mobile App towards Better Stuttering Awareness to Improve Speech Therapy
Man-Ching Yuen, Shin Ying Chu, Normah Binti Che Din
Department of CSE, Chinese University of Hong Kong, Sha Tin, Hong Kong; Centre of Rehabilitation & Special Needs, Universiti Kebangsaan Malaysia, Malaysia

01:40 - 02:00pm: SmartCarb: An Intelligent Mobile System to Assist Diet Control for Gestational Diabetes Patients using Deep Learning Neural Networks
Yujie Hu, Yu Sun, Fangyan Zhang, Bo Guo
California State Polytechnic University, Pomona, California, USA; Northwood High School, Irvine, California, USA; Mississippi State University, Mississippi State, USA; Meizu Inc., Beijing, P. R. China

02:00 - 02:20pm: Cancer Specific Imaging
Philippos Costa, Marcelo Silva, Anielle Almeida, Noelio Dantas, Luciano Lima, Eduardo Costa, Anderson Santos, Antonio Basile, Marcus Santos
Federal University of Uberlandia, Brazil; Federal University of Alagoas, Brazil; Mackenzie University, Brazil; Ryerson University, Ontario, Canada

02:20 - 02:40pm: Modeling of Clinical Practice Guidelines for an Interactive Decision Support Using Ontologies
Patrick Philipp, Marie Bommersheim, Sebastian Robert, Dirk Hempel, Jurgen Beyerer
Karlsruhe Institute of Technology KIT, Vision and Fusion Laboratory IES, Karlsruhe, Germany; Fraunhofer Institute of Optronics, System Technologies and Image Exploitation IOSB, Karlsruhe, Germany; Steinbeis-Transfer-Institut Klinische Hamatoonkologie, Donauworth, Germany

02:40 - 03:00pm: A Novel Approach for Classification of Cancer Subtypes using Differentially Expressed Genes from RNA-Seq
Uday Rangaswamy, Anu Mary Chacko
NIT Calicut, India

03:00 - 03:20pm: Improving Diagnosis in Health Care Systems
Luckeciano Melo, Victor Ulisses Pugliese, Daniela America Da Silva, Fabiana Rocha, Rodrigo Monteiro de Barros Santana, Gildarcio Sousa Goncalves, Luiz Alberto Vieira Dias, Adilson Marques da Cunha, Paulo Marcelo Tasinaffo
Brazilian Aeronautics Institute of Technology, Sao Jose dos Campos, Sao Paulo, Brazil

03:20 - 03:40pm: Applying Deep Learning Methods for Short Text Analysis in Disease Control
Ekpe Okorafor, Ezema Abraham
Department of Computer Science, African University of Science and Technology, Abuja, Nigeria

August 2

SESSION 16-BIOCOMP: BIOINFORMATICS AND COMPUTATIONAL BIOLOGY
                Chairs: Prof. Shuichi Shinmura* and Dr. Fabian Garcia-Nocetti**
                        * Economic Department, Seikei University, Japan
                        **IIMAS, National Autonomous University of Mexico, Mexico
                August 2, 2018 (Thursday); 03:40pm - 06:20pm
                (LOCATION: Lotus Ballroom 3)

03:40 - 04:00pm: Intrinsic Disorder in Conserved Pfam Domains
                   Jianhong Zhou, Christopher J. Oldfield, Fei Huang,
                   Wenying Yan, Bairong Shen, A. Keith Dunker
                   Center for Systems Biology, Soochow University, Suzhou,
                   Jiangsu, P. R. China; Center for Computational Biology
                   and Bioinformatics, Department of Biochemistry and
                   Molecular Biology, Indiana University School of Medicine
                   and Informatics, Indianapolis, Indiana, USA

04:00 - 04:20pm: GI-IsolationForest: Genomic Island Discovery Using
                   Isolation Forest Algorithm
                   Pu Tian, Dongsheng Che
                   Department of Computer Science, East Stroudsburg
                   University, East Stroudsburg, PA, USA

04:20 - 04:40pm: First Success of Cancer Genetic Analysis by Microarrays
                   Shuichi Shinmura
                   Faculty of Economics, Seikei University, Tokyo, Japan

04:40 - 05:00pm: The Analysis of DNA Sequence Information and Complexity
                   Sihai Tang, Bin Shao, Shijun Tang
                   Department of CS, University of Texas at Austin, Texas,
                   USA; Department of Computer Information & Decision
                   Management, West Texas A&M University, Canyon, Texas, USA

05:00 - 05:20pm: Bayesian Bi-Cluster Change-Point Model for Exploring
                   Functional Brain Dynamics
                   Bing Liu, Xuan Guo, Jing Zhang
                   Department of Mathematics & Statistics, Georgia State
                   University, Atlanta, Georgia, USA; Department of CSE,
                   University of North Texas, Denton, Texas, USA;
                   Eli Lilly and Company, Indianapolis, Indiana, USA

05:20 - 05:40pm: Towards a Method for the Assessment of Cerebral Aneurysms
                   Surgery with a Bi-Directional Doppler System for Blood
                   Flow Measurement
                   E. Rubio-Acosta, F. Garcia-Nocetti, P. Acevedo-Contla,
                   M. Fuentes-Cruz, and J. A. Contreras-Arvizu
                   Instituto de Investigaciones en Matematicas Aplicadas y
                   en Sistemas, Universidad Nacional Autonoma de Mexico,
                   Mexico City, Mexico

05:40 - 06:00pm: FREE SLOT

06:00 - 06:20pm: FREE SLOT

FECS'18 + SERP'18 + EEE'18 + FCS'18 + MSV'18 CONFERENCE SCHEDULES

The 2018 International Conference on Frontiers in Education:
Computer Science and Computer Engineering (FECS'18)

+

The 2018 International Conference on Software Engineering Research and Practice
(SERP'18)

+

The 2018 International Conference on e-Learning, e-Business,
Enterprise Information Systems, and e-Government (EEE'18)

+

The 2018 International Conference on Foundations of Computer Science (FCS'18)

+

The 2018 International Conference on Modeling,
Simulation and Visualization Methods (MSV'18)

Because of significant topical and technical overlap between FECS'18, SERP'18, EEE'18, FCS'18, and MSV'18, the schedules of these tracks are merged into one comprehensive 4-day schedule; this has resulted a number of concurrent sessions and so it is important to note the location of each session. It is hoped that this would encourage the participants of these conferences to explore cross-fertilization of ideas. There are also a number of other sessions (not listed as part of these conferences) that are of potential interest to FECS'18, SERP'18, EEE'18, FCS'18, and MSV'18 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), CSC (Scientific Computing), ESCS (Embedded & Cyber-physical Systems), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICDATA (Data Science), ICOMP (Internet Computing & IoT), ICWN (Wireless Networks), IKE (Knowledge Eng.), IPCV (Computer Vision), PDPTA (Parallel & Distributed Processing), and SAM (Security) conferences discuss topics that are within the scope of FECS'18, SERP'18, EEE'18, FCS'18, and MSV'18; these have been scheduled so that selected 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 29

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03:00p - 07:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)
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July 30

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

08:30 - 08:50am: CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am: CONGRESS OPENING SPEECH - July 30, Monday:
                   Thriving in an Increasingly Interdisciplinary World
                   Dr. Stacey Franklin Jones
                   Award winning aerospace software engineer, computer
                   scientist, and higher education administrator as Chair,
                   Dean, Provost, Chancellor, and Vice President (multiple
                   institutions)
                   (LOCATION: Galleria B-C)

09:10 - 09:30am: AN IMPACTFUL INITIATIVE - Juy 30, Monday:
                   Initiatives and Platforms to Alleviate the Challenges
                   Faced by Researchers & PhD Students in Africa & most
                   Developing Countries
                   Nnenna Christine Martin
                   Research Director, ResearchLink International LLC,
                   Greensboro, North Carolina, USA
                   (LOCATION: Galleria B-C)

09:30 - 10:20am: KEYNOTE LECTURE - Juy 30, Monday:
                   Data Science in Industry and Transport: The black swan
                   effect and the swan song desire
                   Prof. Diego Galar
                   Lulea University of Technology (LTU), Luea, Sweden;
                   Coordinator of several H2020 projects in cyber physical
                   systems, Industry 4.0, IoT, & industrial Big Data; Principal
                   Researcher, Tecnalia, Spain; Visiting Professor, University
                   of Sunderland (UK); University of Maryland (USA); ...
                   (LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

SESSION 1-SERP: **SOFTWARE ENGINEERING, PROGRAMMING LANGUAGES + TOOLS**
Chairs: Dr. Lisa Lacher* and Prof. Ahmed Tarek**
* University of Houston - Clear Lake, Texas, USA
**Engineering, Physical & Computer Sciences Department,
Montgomery College (MC), Rockville, Maryland, USA
July 30, 2018 (Monday); 10:40am - 12:40pm
(LOCATION: Galleria E)

10:40 - 11:00am: Improving Programming Language Transformation
Steven A. O'Hara
Eagle Legacy Modernization, LLC, Grovetown, Georgia, USA

11:00 - 11:20am: Effectiveness of Code Refactoring Techniques for Energy
Consumption in a Mobile Environment
Osama Barack, LiGuo Huang
Department of Computer Science and Engineering,
Southern Methodist University, Dallas, Texas, USA

11:20 - 11:40am: Discovery Of Things In The Internet Of Things
Naseem Ibrahim
CSSE, School of Engineering, The Behrend College,
The Pennsylvania State University, Erie, PA, USA

11:40a - 12:00p: WBAS: A Priority-based Web Browsing Automation System for
Real Browsers and Pages
Kenji Hisazumi, Taiyo Nakazaki, Yuki Ishikawa, Takeshi Kamiyama,
and Akira Fukuda
System LSI Research Center, Kyushu University, Fukuoka, Japan;
EE & CS, Kyushu University, Fukuoka, Japan;
Information Science and EE, Kyushu University, Fukuoka, Japan

12:00 - 12:20pm: Publishing Things in the Internet of Things
Naseem Ibrahim
CSSE, School of Engineering, The Behrend College,
The Pennsylvania State University, Erie, PA, USA

12:20 – 12:40pm: TTExtS: A Dynamic Framework to Reverse UML Sequence Diagrams
from Execution Traces
Xin Zhao, Abigail Payne, Travis Atkison
Computer Science Department, University of Alabama, Tuscaloosa,
Alabama, USA

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

SESSION 2-FECS: **RESEARCH PROJECTS, CAPSTONE DESIGN PROJECTS AND TEACHING TOOLS**
Chairs: Prof. Leonidas Deligiannidis;
        Department of Computer Science, Wentworth Institute
        of Technology, Boston, MA, USA
July 30, 2018 (Monday); 01:20pm - 03:00pm
(LOCATION: Galleria E)

01:20 - 01:40pm: A New IGraph Construction Technique for Accessing Ancestor
                  Information
                  Rong Yang
                  Computer Science Division, School of Engineering and Applied
                  Sciences, Western Kentucky University, Kentucky, USA

01:40 - 02:00pm: Undergraduate Project Example: LizardTag - An NFC-based
                  System for Attendance Management
                  Jonathan Sudiaman, Tareq Almutairi, Mira Yun, Chen-Hsiang Yu,
                  and Leonidas Deligiannidis
                  Department of Computer Science and Networking,
                  Wentworth Institute of Technology, Boston, Massachusetts, USA

02:00 - 02:20pm: Spotter: An Internet of Things Parking-Lot-Stall Monitoring
                  System
                  Philip De Luna, James Guan, Paolo Macalalad, Ginnello Suarez,
                  Brian Vital, Marcia Friesen, and Ken Ferens
                  Department of Electrical and Computer Engineering,
                  University of Manitoba, Winnipeg, MB, Canada

02:20 - 02:40pm: Implementing Cost Effective Robotic Arm Capstone Projects
                  Hong Wang
                  Computer Science and Engineering Technology,
                  The University of Toledo, Toledo, Ohio, USA

02:40 - 03:00pm: Hand-on Experiments for a Database Course: Transaction
                  Isolation Levels in SQL
                  Jamal Alsabbagh
                  School of Computing and Information Systems,
                  Grand Valley State University, Allendale, Michigan, USA

03:00 - 03:40pm: POSTER SESSION A
                  (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                  July 30, 2018 (Monday)
                  (LOCATION: Lotus Ballrooms 1-2)

                  O. Have You Ever Taught Computing by only using Pen and Paper?
                      Samir Hajal, Oliver Knodel, Rainer G. Spallek
                      Technische Universitat Dresden, Dresden, Germany
                  O. Computational-thinking-oriented Programming Instruction
                      Yu-Tzu Lin, Yi-Fen Chen, Chen-Chih Wu
                      National Taiwan Normal University, Taipei, Taiwan;
                      Taipei First Girls High School, Taipei, Taiwan
                  O. STEPP-UP: Coding Experience for K-12
                      Samar Swaid
                      Division of Natural and Physical Sciences, Philander
                      Smith College, Little Rock, Arkansas, USA
                  O. ...

SESSION 3-EEE: EDUCATION, E-LEARNING, AND E-TUTORING
Chairs: Prof. Mitchell L. Neilsen* and Saskia Uta Dubener**
        * Department of CS, Kansas State University, USA
        **Neue Nikolaischule - HS, City of Leipzig, Germany
July 30, 2018 (Monday); 03:40pm - 05:00pm
(LOCATION: Galleria E)

03:40 - 04:00pm: First Steps in Creative Computational Thinking with Natural
Language Programming and Lego MINDSTORMS
Geoffrey Falk, Keith Leonard Mannock
Department of CS & IS, University of London, London, UK

04:00 - 04:20pm: Moving Video Forensics to an e-Learning Platform
Eamon P. Doherty
Fairleigh Dickinson University, New Jersey, USA

04:20 - 04:40pm: Puzzles for Learning Real-time Model Checking
Mitchell L. Neilsen
Department of CS, Kansas State University, Manhattan, Kansas, USA

04:40 - 05:00pm: Wi-Fi Direct as a Mobile Student Quizzing Platform - A Case Study
Darren Granger, Michael Hosein
University of the West Indies, St. Augustine, Trinidad

SESSION 4-FCS: PROGRAMMING LANGUAGES, SOFTWARE SYSTEMS, EDUCATION,
ALGORITHMS, AND RELATED ISSUES
Chairs: Dr. Stacey Franklin Jones* and Prof. Ahmed Tarek**
        * Formerly Dean, Provost, Chancellor, and Vice President
          of multiple institutions
        **Engineering, Physical & Computer Sciences Department,
          Montgomery College (MC), Rockville, Maryland, USA
July 30, 2018 (Monday); 05:00pm - 06:20pm
(LOCATION: Galleria E)

05:00 - 05:20pm: A Formal Set Theoretic Approach to the Analysis of Relations and
Functions in Discrete Computational Structures
Ahmed Tarek, Ahmed Alveed
Engineering, Physical and Computer Sciences Department,
Montgomery College, Rockville, Maryland, USA;
Owen J. Roberts High School, Pennsylvania, USA

05:20 - 05:40pm: Deterministic Replay of Memory-mapped File Data for User-level Programs
Joonho Ryu, Taeho Han, Shakaiba Majeed, Hyunmin Yoon, Minsoo Ryu
Department of Information Security, Hanyang University, Seoul,
Republic of Korea; Department of Computer Software, Hanyang University,
Seoul, Republic of Korea; Department of ECE, Hanyang University,
Seoul, Republic of Korea

05:40 - 06:00pm: Online Cheating: A Prevention Procedure
Wasim A. Alhamdani
School of CIS, University of the Cumberlands,
Williamsburg, KY, USA

06:00 - 06:20pm: Randomness Rising - The Decisive Resource in the Emerging
Cyber Reality
Gideon Samid
Department of EE & CS, Case Western Reserve University,
Cleveland, Ohio, USA; BitMint, LLC, USA

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

SESSION 5-SERP: **MODEL DRIVEN DEVELOPMENT + HUMAN COMPUTER INTERACTION +**
                        USABILITY STUDIES + MOBILE APPLICATIONS
                        Chairs: Ron Schneider* and Dr. Promise Mvelase**
                                * Kennesaw State University, Georgia, USA
                                **CHPC Meraka Institute, South Africa
                        July 31, 2018 (Tuesday); 08:00am - 10:20am
                        (LOCATION: Galleria E)

08:00 - 08:20am: FREE SLOT

08:20 - 08:40am: On the Scalability of Concurrency Coverage Criteria for
Model-based Testing of Autonomous Robotic Systems
Mahmoud Abdelgawad, Sterling McLeod, Anneliese Andrews,
and Jing Xiao
Department of CS, University of Denver, Colorado, USA;
Department of CS, University of North Carolina at Charlotte,
Charlotte, North Carolina, USA

08:40 - 09:00am: User Modelling in Search for People with Autism
Esha Massand, Keith Leonard Mannock
Birkbeck Knowledge Lab, Department of CSIS, Birkbeck,
University of London, London, UK

09:00 - 09:20am: Static Taint Analysis Tools to Detect Information Flows
Dan Boxler, Kristen R. Walcott
University of Colorado, Colorado Springs, Colorado, USA

09:20 - 09:40am: User Interaction Metrics for Hybrid Mobile Applications
Thomas G. Hastings, Kristen R. Walcott
College of Engineering and Applied Science,
University of Colorado - Colorado Springs, Colorado, USA

09:40 - 10:00am: Development of Smart Mobility Application based on
Microservice Architecture
Masatoshi Nagao, Takahiro Ando, Kenji Hisazumi, Akira Fukuda
Graduate School, Faculty of Information Science and EE,
Kyushu University, Fukuoka, Japan;
System LSI Research Center, Kyushu University, Japan

10:00 - 10:20am: Using Deep Packet Inspection to Detect Mobile Application
Privacy Threats
Gordon Brown, Kristen R. Walcott
University of Colorado, Colorado Springs, Colorado, USA

10:20 - 10:40am: **BREAK**

SESSION 6-FECS: **FRONTIERS IN EDUCATION AND RELATED ISSUES + TOOLS**
Chairs: Prof. Kevin Gary* and Prof. Hussain Al-Asaad**
* Arizona State University, USA
**ECE, University of California - Davis, USA
July 31, 2018 (Tuesday); 10:40am - 12:40pm
(LOCATION: Galleria E)

10:40 - 11:00am: A Study of Applicants' Preference on Choosing a Postgraduate
Programme using Discrete Choice Model
Vincent Cho
Department of Management and Marketing, The Hong Kong
Polytechnic University, Hong Kong

11:00 - 11:20am: Evaluation of the Conjoined Approach to Interdisciplinary
Computer Science Education
Thomas Way, Francois Massonnat
Department of Computing Sciences, Villanova University,
Villanova, PA, USA; Department of Romance Languages &
Literature, Villanova University, Villanova, PA, USA

11:20 - 11:40am: A Discrete Math Methodology for Computer Science
Nelson Rushton, Vu Phan
Texas Tech University, Lubbock, Texas, USA;
Rice University, Houston, Texas, USA

11:40 - 12:00pm: Geometric Algorithms - Line Segment Intersects Seen in Map
Overlay Problem
Christofer Helwig
Grand Canyon University, Arizona, USA; Estrella Mountain
Community College, Arizona, USA;
DePaul Institute for Professional Development, Illinois, USA

12:00 - 12:20pm: A Scratch Hackathon for Teens
Anja Remshagen, Kelley Gray, Tammy Lee
Department of Computer Science, University of West Georgia,
Carrollton, Georgia, USA

12:20 – 12:40pm: Lab Based Curriculum for CIS and Related Technology
Shahriar Movafaghi, Hassan Pournaghshband
CIT, Southern New Hampshire University, Manchester,
New Hampshire, USA; College of Computing and Software
Engineering, Kennesaw State University, Georgia, USA

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

SESSION 6-FCS: ALGORITHMS, COMPLEXITY STUDIES, AND APPLICATIONS
                     Chair: Prof. Scott Burgess
                          Humboldt State University, USA
                     July 31, 2018 (Tuesday); 01:20pm - 03:00pm
                     (LOCATION: Galleria E)

01:20 - 01:40pm: Design and Concept of an Osmotic Analytics Platform based
on R Container
Dominik Grzelak, Johannes Mey, Uwe AsMann
Chair of Software Technology, TU Dresden, Dresden,
Saxony, Germany

01:40 - 02:00pm: Diffusion Metrics of the AES Symmetric Cryptosystem
Abdinur Ali, Yen-Hung Hu, Cheryl Hinds, Jonathan Graham
Norfolk State University, Norfolk, Virginia, USA

02:00 - 02:20pm: Creating Analysis Model by Using Picture Story
Ngamsantivong Thavatchai
Department of CIS, King Mongkut's University of Technology
North Bangkok, Thailand

02:20 - 02:40pm: Order Book Data Structures
Priscilla Jenq, John Jenq
Bank of America, New York, USA; CS Department, Montclair
State University, Montclair, New Jersey, USA

02:40 - 03:00pm: Privacy Policy Evaluation: A Comparative Study on Universities
of Saudi Arabia and the United States - a Research Plan
Majed Aljazaeri, Yuanqiong Wang
CIS Department, Towson University, Towson, Maryland, USA

03:00 - 03:40pm: **POSTER SESSION B**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
July 31, 2018 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

O.   Improvement of the Vibration Performance of a Steam
Turbine Generator
Tae-Heum Yoon, Young-Ho Park
Department of Eco-friendly Offshore FEED Engineering,
Changwon National University, Korea; Department of Naval
Architecture & Marine Engineering, Changwon National
University, Changwon, Gyeongnam, Korea

O.   Stress Analysis of Separator in Lithium-ion Battery using
Multiphysics Analysis
D. C. Lee, K. W. Kim, C. W. Kim
School of Mechanical Engineering, Konkuk University,
Seoul, Republic of Korea

O.   Simulation of Depth Controllers for Underwater Glider by
Using Reduced Order Observer
Jin Y. Hwang, Hyun A. Kang, In J. Lee, Moon G. Joo, and
S. M. Lee
Department of Information and Communications Engineering,
Pukyong National University, Republic of Korea; School of
EE, Pukyong National University, Republic of Korea

O.   ...

SESSION 7-EEE: **CONCURRENT SESSION:**
E-BUSINESS, ENTERPRISE INFORMATION SYSTEMS + INFORMATION
RETRIEVAL + KNOWLEDGE EXTRACTION + SECURITY ISSUES
Chairs: Prof. Suhair H. Amer* and Prof. Shahriar Movafaghi**
* Department of Computer Science, Southeast Missouri
State University, Cape Girardeau, Missouri, USA
**Computer Information Technology, Southern New
Hampshire University, Manchester, USA
July 31, 2018 (Tuesday); 03:40pm - 07:00pm
(LOCATION: Galleria E)

03:40 - 04:00pm: Transforming Business Moments into Business Models
Isabell Schrader, Olaf Droegehorn
direkt gruppe GmbH, Holzmarkt, Koln, Germany;
University of Applied Sciences Harz, Department of Automation
& Computer Science, Friedrichstrasse, Wernigerode, Germany

04:00 - 04:20pm: An Efficient and Secure ECC-based Partially Blind Signature
Scheme with Multiple Banks Issuing E-cash Payment Applications
Woei-Jiunn Tsaur, Jui-Heng Tsao, Yuan-Heng Tsao
Computer Center, National Taipei University, Taiwan;
Department of EE, National Taiwan University, Taiwan;
Department of Law, National Taipei University, Taiwan

04:20 - 04:40pm: Information Adoption from Online Review Sites for
Decision-making
Vincent Cho, Desmond Chan
The Hong Kong Polytechnic University, Hong Kong

04:40 - 05:00pm: Index Optimization in News Articles using Feature Similarity
based K Nearest Neighbors
Taeho Jo
School of Game, Hongik University, Sejong, South Korea

05:00 - 05:20pm: Designing and Deploying a Cloud Application using Azure
A. Juturu, D. Yoon
CIS Department, University of Michigan - Dearborn, USA

05:20 - 05:40pm: The New Role of Big Data in Recent Enterprise Architecture
Design
Shahriar Movafaghi, Ramin Nassiri
Computer Information Technology, Southern New Hampshire
University, Manchester, New Hampshire, USA; Department of
CE, Islamic Azad University, Central Tehran Branch, Iran

05:40 - 06:00pm: FingerPrinting Data - Sticky Data Captures the Fingerprints
of its Handlers
Gideon Samid
Department of EE & CS, Case Western Reserve University,
Cleveland, Ohio, USA

06:00 - 06:20pm: Big Data and Ethics
Suhair Amer
Department of CS, Southeast Missouri State University,
Cape Girardeau, Missouri, USA

July 31

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06:20 — 06:40pm:  Construction of Remote Class System that Enables Interactive
                  Communication and Comparison Existing Remote Class System
                  Kazuya Murata, Koji Fujita, Takayuki Fujimoto
                  Graduate School of Information Science and Arts,
                  Toyo University, Saitama, Japan;  Faculty of Information
                  Technology and Business, Cyber University, Tokyo, Japan

06:40 — 07:00pm:  Solo Operational Experiment and Evaluation of Remote Class
                  System that Enables Interactive Communication for Active Learning
                  Koji Fujita, Kazuya Murata
                  Faculty of Information Technology and Business,
                  Cyber University, Tokyo, Japan;  Graduate School of
                  Information Sciences and Arts, Toyo University, Japan
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04:40 - 05:40pm: **CONCURRENT SESSION:**
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 CS; Colorado State University,
Fort Collins, Colorado, USA
(LOCATION: Galleria C) <---------- Note the location change

05:40 - 06:30pm: **CONCURRENT SESSION:**
KEYNOTE/INVITED LECTURE:
Applications of AI: A Pragmatic Perspective
Prof. Andrew Ware
Professor of Computing, University of South Wales, UK;
Regional Director of Techno Camps, UK
(LOCATION: Galleria C) <---------- Note the location change

05:40 - 07:40pm: **CONCURRENT SESSION:**
INVITED TUTORIAL & TALK:
Machine Learning and Urban Analytics
Dr. Richard Dunks
Founder of Datapolitan, New York, USA
(LOCATION: Galleria B) <---------- Note the location change

August 1

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

SESSION 8-SERP: SOFTWARE ENGINEERING AND APPLICATIONS + TOOLS
                  Chairs: Prof. Michael B. Esiefarienrhe* and Jason St. George**
                          * CS Department, North-West University, South Africa
                          **Rochester Institute of Technology, New York, USA
                  August 1, 2018 (Wednesday); 08:00am - 10:40am
                  (LOCATION: Galleria E)

08:00 - 08:20am: M-Commerce Apps Usability: The Case of Mobile Hotel
                  Booking Apps
                  D. Matlock, A. Rendell, B. Heath, S. Swaid
                  Division of Natural and Physical Sciences,
                  Philander Smith College, Little Rock, Arkansas, USA

08:20 - 08:40am: Solar and Home Battery Based Spot Market for Saudi Arabia
                  Using Consortium and Negotiation
                  Fathe Jeribi, Sungchul Hong
                  CIS, Towson University, Towson, Maryland, USA

08:40 - 09:00am: Measuring Cloud Service APIs Quality and Usability
                  Abdullah Bokhary, Jeff Tian
                  Department of IT, University of Jeddah, Saudi Arabia;
                  Department of CSE, Southern Methodist University, Dallas,
                  Texas, USA; Northwest University, P. R. China

09:00 - 09:20am: Risk Priority Numbers for Various Categories of
                  Alzheimer's Disease
                  Chandrasekhar Putcha, Brian Sloboda, Vish Putcha
                  Department of Civil Eng. & Environmental Eng.,
                  California State University, Fullerton, California, USA;
                  Center for Management & Entrepreneurship (CME), School
                  for Advanced Studies (SAS), University of Phoenix, USA;
                  Walmart- Bentonville, Arkansas, USA

09:20 - 09:40am: Clone Detection Using Scope Trees
                  Mubarek Mohammed, Jim W. Fawcett
                  Department of Computer Science and Electrical Engineering,
                  Syracuse University, New York, USA

09:40 - 10:00am: A Practical Methodology for Do-178C Data and Control
                  Coupling Objective Compliance
                  Thiago Maia, Marilia Souza
                  Performance Software, Embraer, Belo Horizonte, Brazil;
                  Software Development and Process, Embraer, Brazil

10:00 - 10:20am: Probabilistic Study of Beam Columns
                  Bhupendra Singh Rana, S. K. Gupta, Chandrasekhar Putcha
                  Department of Civil Eng., Indian Institute of Technology
                  (BHU), Varanasi, India; Department of Civil &
                  Environmental Eng., California State Univ., Fullerton, USA

10:20 - 10:40am: A Review of Popular Reverse Engineering Tools from a
                  Novice Perspective
                  Amanda Lee, Abigail Payne, Travis Atkison
                  Computer Science Department, University of Alabama,
                  Tuscaloosa, Alabama, USA

SESSION 9-FECS: ACCREDITATION, ASSESSMENT METHODS & STRATEGIES +
ISSUES RELATED TO DEGREE PROGRAMS
Chairs: Prof. Mudasser F. Wyne* and Prof. Chandrasekhar Putcha**
    * Department of Computer Science and Information Systems, SOEC,
      National University, San Diego, California, USA
    **Department of Civil & Environmental Engineering, California
      State University, Fullerton, California, USA
August 1, 2018 (Wednesday); 10:40am - 12:20pm
(LOCATION: Galleria E)

10:40 - 11:00am: Engineering Program Turnarounds in Computer Science
Scott A. Burgess
Department of Computer Science, Humboldt State University,
Arcata, California, USA

11:00 - 11:20am: ABET Accreditation: Lessons Learned
Mudasser F. Wyne, Alireza Farahani, Lu Zhang
School of Engineering and Computing, National University,
San Diego, California, USA

11:20 - 11:40am: A Platform for Applying Agile Principles to Project-based
Learning Assessment in Software Engineering
Kevin Gary, Thomas Johnson, Christian Murphy, Ram Acharya
Software Engineering, Arizona State University, Mesa, USA;
Unicon Inc. Gilbert, Arizona, USA

11:40 - 12:00pm: Turnarounds Of Academic Programs In The California State
University System
Scott A. Burgess
Department of Computer Science, Humboldt State University,
Arcata, California, USA

12:00 - 12:20pm: What Does it Take to Establish a Computer Science Education
Degree? The Collaborative Journey Between a Computer
Science and Secondary Education Professor
Katia Mayfield, Leigh Hester
Department of Mathematics, Computer and Natural Sciences,
Athens State University, Athens, Alabama, USA;
Department of Collaborative & Secondary Studies,
Athens State University, Athens, Alabama, USA

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

SESSION 10-EEE: EDUCATION, E-LEARNING, AND E-TUTORING & BANKING
                    Chairs: Prof. Dr. Jens Wagner* and Munienge Mbodila**
                            * Hochschule fur Technik, Wirtschaft und Kultur Leipzig,
                              Fakultat fur Informatik, Mathematik und Naturwissenschaften,
                              HTWK-Leipzig, Germany
                            **Walter Sisulu University, South Africa
                    August 1, 2018 (Wednesday); 01:20pm - 03:00pm
                    (LOCATION: Galleria E)

01:20 - 01:40pm: E-Books: A Convenience or a Loophole for Learning
                    Faisal Shuraym, Hyein Cho, Marco Colasito, and
                    Sudip Chakraborty
                    Department of Computer Science, Valdosta State University,
                    Valdosta, Georgia, USA

01:40 - 02:00pm: E-university Applications: A Privacy-Preserving Diploma
                    Notarization Platform in Taiwan
                    Lo-Yao Yeh, Woei-Jiunn Tsaur, Shih-Wei Liao,
                    Cheng-Feng Huang, Jen-Chun Chang, and Ching-Ching Lin
                    Innovative & Applicable Division, National Center for
                    High-performance Computing, Taichung, Taiwan; Computer
                    Center, National Taipei University, New Taipei, Taiwan;
                    Department of CS & Info. Eng., National Taiwan University,
                    Taipei, Taiwan; Department of Information Management,
                    National Chi Nan University, Nantou, Taiwan

02:00 - 02:20pm: Strategies to Overcome Flipped Classroom Challenges
                    Tabby Harraf
                    University of Northern Colorado, Colorado, USA

02:20 - 02:40pm: A Theoretical Insight on e-Banking (Internet Banking)
                    Framework in Developing Countries
                    Nnenna C. Martin, Diliora Igboanugo, Chukwunonso S. Oddih,
                    Michelle Sajjad, and Maham Sajjad
                    ResearchLink International LLC, Greensboro, NC, USA;
                    University of North Carolina, Greensboro, North Carolina, USA

02:40 - 03:00pm: Teaching Creativity Skills using Process-based Creativity
                    Theories within a Social Network
                    Diana Ragbir and Permanand Mohan
                    Department of CIT, University of the West Indies,
                    St Augustine Campus, Trinidad & Tobago

03:00 - 03:40pm: POSTER SESSION C
                    (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                    August 1, 2018 (Wednesday)
                    (LOCATION: Lotus Ballrooms 1-2)

                    O. Parser Development Using Customized Typescript Compiler
                        Kazuaki Maeda
                        College of Business Administration and Information Science,
                        Chubu University, Aichi, Japan
                    O. Data Modeling for Monitoring and Visualizing of Learning
                        Outcomes based on Assessment Standards
                        Hyunsook Chung, Jeongmin Kim
                        Department of CE, Chosun University, Gwangju, Korea;
                        Department of CE, Daejin University, Pocheon, Korea
                    O. Social Media Policy Implications in Saudi Higher Education
                        Institutions - A Research Plan
                        Faowzia Alharthy, Yuanqiong Wang
                        CIS Department, Towson University, Towson, Maryland, USA
                    O. ...

CONCURRENT SESSIONS: SESSION 11-MSV & AN INVITED TUTORIAL/LECTURE
ARE BEING HELD CONCURRENTLY

SESSION 11-MSV: CONCURRENT SESSION:
                    SIMULATION, TOOLS & APPLICATIONS + MODELING, VISUALIZATION
                    AND NOVEL APPLICATIONS
                    Chairs: Dr. John M. Medellin* and Prof. Sung-won Park**
                            * Research Associate Professor (formerly IBM Executive
                              & PricewaterhouseCoopers Partner), Southern Methodist
                              University, Darwin Deason Institute for Cyber Security,
                              Dallas, Texas, USA
                            **Texas A&M University-Kingsville, Texas, USA
                    August 1, 2018 (Wednesday); 03:40pm - 06:20pm
                    (LOCATION: Galleria E) <---------- Note the location change

03:40 - 04:00pm: Sonification of Simulated Black Hole Merger Data
                    Jason St. George, Sungyoung Kim, Hans-Peter Bischof
                    Center for Computational Relativity and Gravitation,
                    Rochester Institute of Technology, Rochester, New York, USA

04:00 - 04:20pm: Wireless Exploitation Through Keyboard Emulation
                    Seth Helgeson, Corbyn Robberstad, Prakash Ranganathan
                    Department of EE, University of North Dakota, Grand Forks,
                    North Dakota, USA

04:20 - 04:40pm: Reconstruction of Undersampled Super High Frequency Signals
                    using Recurrent Nonuniform Sampling
                    Sung-Won Park, Teja Renukaradhya
                    Department of EE & CS, Texas A&M University-Kingsville, USA

04:40 - 05:00pm: Simulating Resource Consumption in Three Blockchain
                    Consensus Algorithms
                    John M. Medellin, Mitchell A. Thornton
                    Research Associate Professor and C.E. Green Chair in Eng.,
                    Darwin Deason Cyber Security Institute, Lyle School of Eng.,
                    Southern Methodist University, Dallas, Texas, USA

05:00 - 05:20pm: A Comprehensive Survey on Wireless Vulnerabilities through
                    the OSI and IEEE Model
                    Seth Helgeson, Corbyn Robberstad, Prakash Ranganathan
                    Department of EE, University of North Dakota, Grand Forks,
                    North Dakota, USA

05:20 - 05:40pm: A Nominal Delay Metamorphic Differential Simulator for
                    Digital Circuits
                    Peter M. Maurer
                    Department of CS, Baylor University, Waco, Texas, USA

05:40 - 06:00pm: Random Non-Singular Matrices Over GF(2)
                    Peter M. Maurer
                    Department of CS, Baylor University, Waco, Texas, USA

06:00 - 06:20pm: Quantum Deductive Fault Simulation
                    Vladimir Hahanov, Wajeb Gharibi, Mykhailo Liubarskyi,
                    Eugenia Litvinova, Svetlana Chumachenko, Ivan Hahanov,
                    and Anastasia Hahanova
                    Design Automation Department, Kharkov National University of
                    Radioelectronics, Ukraine; CS Department, Jazan University,
                    Saudi Arabia, KSA

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05:40 - 07:40pm:   CONCURRENT SESSION:
                   INVITED TUTORIAL & LECTURE:
                   Darknets and Cryptocurrency
                   Andrew Johnston
                   Mandiant (Consultant), a division of FireEye
                   (LOCATION: Galleria B) <---------- Note the location change
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07:00a - 05:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)



                        CONCURRENT SESSIONS:
EACH SESSION ON THIS DAY BELONGING TO FECS'18, SERP'18, EEE'18,
AND MSV'18 ARE BEING HELD CONCURRENTLY WITH AT LEAST ONE OTHER
SESSION. IT IS THEREFORE IMPORTANT THAT THE ATTENDEES EXAMINE THIS
DAY'S SCHEDULE CAREFULLY TO DECIDE THE SESSIONS THAT THEY WISH TO
PARTICIPATE IN (ALSO NOTE THE LOCATION OF EACH SESSION).



SESSION 12-FECS:  CONCURRENT SESSION WITH SESSION 16-EEE:
                  TEACHING METHODOLOGIES & STRATEGIES, ASSESSMENT METHODS &
                  TOOLS + ACTIVE LEARNING, LEARNING STRATEGIES, COLLABORATIVE
                  LEARNING, TOOLS + WORKFORCE MAPPING
                  Chairs: Prof. Don Schwartz* and Dr. Hong Wang**
                          * School of CS & Math, Marist College, Poughkeepsie, NY, USA
                          **CS & Eng. Tech., University of Toledo, Ohio, USA
                  August 2, 2018 (Thursday); 08:00am - 10:20am
                  (LOCATION: Galleria E)


08:00 - 08:20am:  Preliminary Experience and Learning Outcomes by Infusing
                  Interactive and Active Learning to Teach an Introductory
                  Programming Course in Python
                  Mahmudur Rahman, Prabir Bhattacharya
                  Computer Science Department, Morgan State University,
                  Baltimore, Maryland, USA

08:20 - 08:40am:  The Graphic Narrative Database: Combining Design Thinking
                  with Service Learning in a Project that Spans Computer
                  Science and The Humanities
                  Donald R. Schwartz
                  School of Computer Science and Mathematics, Marist College,
                  Poughkeepsie, New York, USA

08:40 - 09:00am:  Exploring How the NICE Cybersecurity Workforce Framework
                  Aligns Cybersecurity Jobs with Potential Candidates
                  Adriane C. Estes, Dan J. Kim, T. Andrew Yang
                  University of Houston - Clear Lake, Houston, Texas, USA;
                  University of North Texas, Denton, Texas, USA

09:00 - 09:20am:  Applying Recent-Performance Factors Analysis to Explore
                  Student Effort Invested in Programming Assignments
                  Zhiyi Li, Stephen Edwards
                  Department of CS, Virginia Tech, Virginia, USA

09:20 - 09:40am:  Teaching C++ Programming as a Foreign Language
                  Fariel Mohan
                  University of Trinidad & Tobago, Trinidad & Tobago

09:40 - 10:00am:  Teaching and Learning Programming Using Code Animation
                  Y. Daniel Liang
                  Department of CS, Georgia Southern University, USA

10:00 - 10:20am:  Social Media Policy Implications in Saudi Higher
                  Education Institutions - A Research Plan
                  Faowzia Alharthy, Yuanqiong Wang
                  Computer and Information Sciences Department,
                  Towson University, Towson, Maryland, USA

10:20 - 10:40am:  BREAK
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SESSION 13-FECS: **CONCURRENT SESSION WITH SESSION 17-MSV:**
TEACHING METHODOLOGIES, ASSESSMENT METHODS, TOOLS +
DISTANCE LEARNING, VIRTUAL COMPUTER LABS & ENVIRONMENTS
Chairs: Dr. Daniel Liang* and Prof. Chandrasekhar Putcha**
* Georgia Southern University, Georgia, USA
**Department of Civil & Environmental Engineering,
California State University, Fullerton, USA
August 2, 2018 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria E)

10:40 - 11:00am: More Time Left for Lecture: The GoToClass Automated
Attendance-taking Application
Umar Khalid, Daniel Reiling, Corbin White, Masahiro Yoshida,
and Ebru Celikel Cankaya
Department of Computer Science, University of Texas at Dallas,
Richardson, Texas, USA

11:00 - 11:20am: Coding and Climate Change in Virtual Reality
M. R. Zargham, M. Rajendran
Department of CS, University of Dayton, Dayton, Ohio, USA

11:20 - 11:40am: Communication - The More the Merrier
Cydnee E. Biehl, Lisa L. Lacher
College of Science and Engineering,
University of Houston - Clear Lake, Houston, Texas, USA

11:40 - 12:00pm: An Approach to Optimization of Human-Machine Interaction
Lamia Atma Djoudi, Indu Annand, Anurag Wakhlu, Antoine Luu
Cognitus, Paris, France; Suchila Publications, Chelmsford
Massuchttes, USA; Coloci Inc, Lexigjton, Massachussettes;
Tobii, Stockholm, Sweden

12:00 - 12:20pm: FREE SLOT

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

SESSION 14-FECS: **CONCURRENT SESSION WITH SESSION 18-SERP:**
FRONTIERS IN EDUCATION & TOOLS + SCIENCE, TECHNOLOGY,
ENGINEERING & MATHEMATICS - STEM EDUCATION &
COMPUTATIONAL SCIENCE
Chairs: Prof. Stephen H. Edwards* and Dr. Satish Penmatsa**
* Department of Computer Science, Virginia Tech,
Blacksburg, Virginia, USA
**Department of Computer Science, Framingham State
University, Framingham, MA, USA
August 2, 2018 (Thursday); 01:20pm - 03:00pm
(LOCATION: Galleria E)

01:20 - 01:40pm: A Method for Creating Assessment items for Computer Science
Shareeda Mohammed, Permanand Mohan
Department of CIT, The University of the West Indies,
St. Augustine, Trinidad and Tobago

01:40 - 02:00pm: Complexity and the Engineering of Bug-Free Software
Devon M. Simmonds
University of North Carolina Wilmington, North Carolina, USA

02:00 - 02:20pm: Industry Collaborations in Computing and Other STEM Fields
in Hispanic Serving Institutions
Meline Kevorkian, Greg Simco
Office of Academic Affairs, Nova Southeastern University,
Fort Lauderdale, Florida, USA; College of Engineering,
Nova Southeastern University, Fort Lauderdale, Florida, USA

02:20 - 02:40pm: The Partnership for Early Engagement in Computer Science
(PEECS) Program: Facilitating the Diversification of D.C.'s
Tech Workforce
Marlon Mejias, Ketly Jean-Pierre, Kenneth Anderson,
Gloria Washington, Legand Burge, and A. Nicki Washington
Department of EE & CS, Howard University, Washington, DC, USA;
Department of Curriculum & Instruction, Howard University,
Washington, DC, USA; Department of CS, Winthrop University,
Rock Hill, South Carolina, USA

02:40 - 03:00pm: Dezibot2 - The Wi-Fi based, Inexpensive, and Small
Educational Mobile Robot
Saskia Uta Dübener, Anton Jacker, Anina Ambra Morgner,
Hans Felix Haupt, and Jens Wagner
Neue Nikolaischule - High School, City of Leipzig, Germany;
Werner-Heisenberg-Schule - High School, City of Leipzig,
Germany; Immanuel-Kant-Schule - High School, City of Leipzig,
Germany; Faculty IMN, HTWK - University of Applied Sciences,
Leipzig, Germany

03:00 - 03:40pm: POSTER SESSION D
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 2, 2018 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

SESSION 15-FECS: **CONCURRENT SESSION WITH SESSION 19-SERP:**
FRONTIERS IN EDUCATION AND RELATED ISSUES + TOOLS
Chair: Prof. Suhair H. Amer
Department of Computer Science, Southeast Missouri
State University, Cape Girardeau, Missouri, USA
August 2, 2018 (Thursday); 03:40pm - 05:20pm
(LOCATION: Galleria E)

03:40 - 04:00pm: PAULS CART 2.0: An Improved Assistive System to Support
Inclusive CS Education for Tetraplegics
Paul T. Chiou, Yu Sun, G. S. Young
Department of Computer Science, California State Polytechnic
University, Pomona, California, USA

04:00 - 04:20pm: A Proposal of an Educational Approach based on the Application
of Internet of Things and Urban Agriculture Concepts to
Motivate and Improve Learning Outcomes
Rodrigo Filev Maia, Ailton Pinto Alves Filho
Department of Computer Science, Centro Universitario FEI,
Sao Bernardo do Campo, Brazil

04:20 - 04:40pm: Children in the Cyber World
Suhair Amer
Computer Science Department, Southeast Missouri State
University, Missouri, USA

04:40 - 05:00pm: English-medium Instruction in English as a Foreign Language
Computer Science Courses: Observation and Suggestion
Yung-huei Chen, Yung-Ting Chuang
Center for Language Studies, National Chung Cheng University
Chiayi, Taiwan; Department of Information Management,
National Chung Cheng University Chiayi, Taiwan

05:00 - 05:20pm: FREE SLOT

05:20 - 05:40pm: FREE SLOT

05:40 - 06:00pm: FREE SLOT

06:00 - 06:20pm: FREE SLOT

SESSION 16-EEE: **CONCURRENT SESSION WITH SESSION 12-FECS:**
EDUCATION, E-LEARNING, & E-TUTORING + E-GOVERNMENT, VIRTUAL LABS
& RELATED ISSUES
Chairs: Prof. Michael B. Esiefarienrhe
CS Department, North-West University, South Africa
August 2, 2018 (Thursday); 08:00am - 10:20am
(LOCATION: Galleria A)

08:00 - 08:20am: Engaging People: A Multidisciplinary Service Mobile App
Study Case in Mexico
S. Serrato, D. Anguiano, R. Barrera, S. D. Valdez, and
F. Ortiz-Rodriguez
Universidad Autonoma de Tamaulipas, Mexico

08:20 - 08:40am: Towards Ensuring a Successful e-Learning Implementation:
A proposed model for enhancing first year students'
participation
Munienge Mbodila, Muhandji Kikunga
University of Venda, South Africa;
University of South Africa, South Africa

08:40 - 09:00am: Towards an Adaptive E-learning System to Address Individual
Learning Styles: A Case Study
Mieassar A. Al-Jazairi, Thair M. Hamtini, Lama Rajab
Computer Information Systems Department,
University of Jordan, Amman, Jordan

09:00 - 09:20am: Implementing a Virtual Computer Laboratory
C. Wilson, H. Felch, L. T. Whitsel, R. F. Flagg, S. Cousins,
N. Howard, and B. Segee
Advanced Computing Group, University of Maine, Orono,
Maine, USA; Cybersecurity & Computing & Information Systems,
University of Maine at Augusta, Maine, USA; School of
Computing & Information Science, University of Maine, Orono,
Maine, USA; ECE Department, University of Maine, Orono, USA

09:20 - 09:40am: A Mobile Learning Technology Used in Teaching and Learning
in English Primary Schools
Joan Lu, Qiang Xu, Mike Joy, Simon McKenna, Gail Newton,
Artem Boyarchuk, James Robert, Mohammed Yousef,
Dominic Williams, and Simon Fawcett
University of Warwick, UK; Federation of Scapegoat Hill J&I
and Linthwaite Clough JI&EY Schools, UK; St. Josephs
Catholic Primary School, Huddersfield, UK; University of
Huddersfield, UK

09:40 - 10:00am: Rivest Chaffing and Winnowing Cryptography Elevated into a
Full-Fledged Cryptographic Strategy
Gideon Samid
Department of EE & CS, Case Western Reserve University,
Cleveland, Ohio, USA; BitMint, LLC., USA

10:00 - 10:20am: Smart Government an Interoperability and Multi Dialect
Solution to Improve Citizens Services
Fernando Ortiz Rodriguez, Melchor Medina, Demian Abrego
Universidad Autonoma de Tamaulipas, Mexico

10:20 - 10:40am: BREAK

SESSION 17-MSV: **CONCURRENT SESSION WITH SESSION 13-FECS:**
MODELING, VISUALIZATION AND APPLICATIONS
Chair: Dr. Sakir Yucel
NetApp, USA
August 2, 2018 (Thursday); 10:40am - 12:20pm
(LOCATION: Galleria A)

10:40 - 11:00am: Modeling and Simulation of a Neural Network in Single-
Electron Tunneling Technology
Costa Gerousis, James Martin
Department of Physics, Computer Science and Engineering,
Christopher Newport University, Virginia, USA;
Department of Mathematics, Christopher Newport University,
Virginia, USA

11:00 - 11:20am: Estimating Cost of CSR Strategy
Sakir Yucel
NetApp, Pittsburgh, USA

11:20 - 11:40am: Modeling Corporate Social Responsibility Strategy
Sakir Yucel
NetApp, Pittsburgh, USA

11:40 - 12:00pm: Measuring Benefits, Drawbacks and Risks of CSR Strategy
Sakir Yucel
NetApp, Pittsburgh, USA

12:00 - 12:20pm: VR Enhanced Interactive Intubation Simulation
Yan Meng
George Washington University, Washington, DC, USA

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

SESSION 18-SERP: **CONCURRENT SESSION WITH SESSION 14-FECS:**
SOFTWARE ENGINEERING: TESTING METHODS, & SECURITY ISSUES
+ REVERSE ENGINEERING
Chairs: Prof. Michael B. Esiefarienrhe* and Mubarek Mohammed**
* CS Department, North-West University, South Africa
**Syracuse University, New York, USA
August 2, 2018 (Thursday); 01:20pm - 03:00pm
(LOCATION: Galleria A)

01:20 - 01:40pm: Industrial Practices in Security Vulnerability Management
for IoT Systems - An Interview Study
Martin Host, Jonathan Sonnerup, Martin Hell, Thomas Olsson
Department of Computer Science, Lund University, Sweden;
Department of Electrical and Information Technology,
Lund University, Sweden; RISE SICS AB, Lund, Sweden

01:40 - 02:00pm: Integrating Software Testing Standard ISO/IEC/IEEE 29119
to Agile Development
Ning Chen, Ethan W. Chen, Ian S. Chen
Department of Computer Science, California State University,
Fullerton, California, USA;
Raytheon Company, Tucson, Arizona, USA

02:00 - 02:20pm: An Approach to Analyze Power Consumption on Apps for
Android OS Based on Software Reverse Engineering
Eduardo Caballero Espinosa, Abigail Payne, Travis Atkison
Computer Science Department, University of Alabama,
Tuscaloosa, Alabama, USA

02:20 - 02:40pm: FREE SLOT

02:40 - 03:00pm: FREE SLOT

03:00 - 03:40pm: **POSTER SESSION D**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 2, 2018 (Thursday)
(LOCATION: Lotus Ballrooms 1-2)

SESSION 19-SERP: CONCURRENT SESSION WITH SESSION 15-FECS:
SOFTWARE ENGINEERING RESEARCH AND PRACTICE + TOOLS
Chairs: Dr. Cuauhtemoc Lopez-Martin* and Joseph Suprenant**
* Universidad de Guadalajara, Mexico
**Air Force Research Laboratory, Information Directorate,
Rome, New York, USA
August 2, 2018 (Thursday); 03:40pm - 05:40pm
(LOCATION: Galleria A)

03:40 - 04:00pm: A Web-based Application for Sales Predication
Mao Zheng, Song Chen, Yuxin Liu
Department of Computer Science, University of Wisconsin-
LaCrosse, Wisconsin, USA; Department of Mathematics and
Statistics, University of Wisconsin-LaCrosse, USA

04:00 - 04:20pm: Statistical Analysis of Prediction Accuracy Measure
Distributions for Effort and Duration of Software Projects
Cuauhtemoc Lopez-Martin
Department of Information Systems, Universidad de Guadalajara,
Zapopan, Jalisco, Mexico

04:20 - 04:40pm: Software Architecture of an ISR Asset Planning Application
Wilmuth Muller, Frank Reinert, Roland Rodenbeck, and
Jennifer Sander
Fraunhofer IOSB, Institute of Optronics, System Technologies,
and Image Exploitation, Germany

04:40 - 05:00pm: Improved Technique for Implementing Gradual Type in Racket
Language
Asiful Islam, Jingpeng Tang, Sun Wenhui, Qianwen Bi
Department of CS, Utah Valley University, Utah, USA;
Department of CS, Beijing Jiaotong University, P. R. China

05:00 - 05:20pm: Seven Principles of Undergraduate Capstone Project Management
Xiaocong Fan
School of Engineering, Behrend College,
Pennsylvania State University, Erie, PA, USA

05:20 - 05:40pm: Requirements Mining in Agile Software Development
Micheal Tuape
College of Computing and Information Sciences,
Makerere University, Uganda

05:40 – 06:00pm: FREE SLOT

06:00 – 06:20pm: FREE SLOT

ESCS'18 + ICOMP'18 + ICWN'18 CONFERENCE SCHEDULES

The 2018 International Conference on Embedded Systems, Cyber-physical Systems, and Applications (ESCS'18)

+

The 2018 International Conference on Internet Computing and IoT (ICOMP'18)

+

The 2018 International Conference on Wireless Networks (ICWN'18)

Because of significant topical and technical overlap between ESCS'18, ICOMP'18, and ICWN'18, the schedules of these tracks are merged into one comprehensive 4-day schedule; this has resulted a number of concurrent sessions and so it is important to note the location of each session. It is hoped that this would encourage the participants of these conferences to explore cross-fertilization of ideas. There are also a number of other sessions (not listed as part of these conferences) that are of potential interest to ESCS'18, ICOMP'18, and ICWN'18 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), BIOENG (Biomedical Engineering), FECS (Education), GCC (Grid, Cloud, & Cluster Computing), HIMS (Health Informatics), ICAI (Artificial Intelligence), ICDATA (Data Science), IPCV (Computer Vision), MSV (Modeling, Simulation & Visualization Methods), PDPTA (Parallel & Distributed Processing), SAM (Security), and SERP (Software Engineering) conferences discuss topics that are within the scope of ESCS'18, ICOMP'18, and ICWN'18; these have been scheduled so that selected 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 29

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03:00p - 07:00p:  REGISTRATION
                  (Lotus Ballrooms 1-2; Registration Counter/Desk)
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July 30

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

08:30 - 08:50am: CONGRESS WELCOME REMARKS - July 30, 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)

08:50 - 09:10am: CONGRESS OPENING SPEECH - July 30, Monday:
Thriving in an Increasingly Interdisciplinary World
Dr. Stacey Franklin Jones
Award winning aerospace software engineer, computer
scientist, and higher education administrator as Chair,
Dean, Provost, Chancellor, and Vice President (multiple
institutions)
(LOCATION: Galleria B-C)

09:10 - 09:30am: AN IMPACTFUL INITIATIVE - Juy 30, Monday:
Initiatives and Platforms to Alleviate the Challenges
Faced by Researchers & PhD Students in Africa & most
Developing Countries
Nnenna Christine Martin
Research Director, ResearchLink International LLC,
Greensboro, North Carolina, USA
(LOCATION: Galleria B-C)

09:30 - 10:20am: KEYNOTE LECTURE - Juy 30, Monday:
Data Science in Industry and Transport: The black swan
effect and the swan song desire
Prof. Diego Galar
Lulea University of Technology (LTU), Luea, Sweden;
Coordinator of several H2020 projects in cyber physical
systems, Industry 4.0, IoT, & industrial Big Data; Principal
Researcher, Tecnalia, Spain; Visiting Professor, University
of Sunderland (UK); University of Maryland (USA); ...
(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

SESSION 1-ICOMP: **INTERNET OF THINGS + WEB-BASED APPLICATIONS + DATA SCIENCE**
Chairs: Dr. Roberto Alcalde* and Prof. Xiang Cao**
* University of Burgos, Spain
**School of Computing and Information Systems,
Grand Valley State University, USA
July 30, 2018 (Monday); 10:40am - 12:40pm
(LOCATION: Lotus Ballroom 3)

10:40 - 11:00am: Design of a Fuzzy Quality Evaluation and Control System
with Internet of Things (IoT) for Streamlining Inbound
Process in the Manufacturing Industry
Joseph S. M. Yuen, K. L. Choy, H. Y. Lam, Y. P. Tsang
Department of Industrial and Systems Engineering, The
Hong Kong Polytechnic University, Kowloon, Hong Kong

11:00 - 11:20am: Machine Learning Innovation for High Accuracy Remaining
Useful Life (RUL) Estimation for Critical Assets in IoT
Infrastructures
Kenny C. Gross, DeJun Li, Andrew Vakhutinsky
Oralce Physical Sciences Research Center, Oracle Corp,
San Diego, California, USA; Modeling, Simulation &
Optimization, Oracle Corporation, USA

11:20 - 11:40am: Low Cost Automatic Speech Recognition IoT Architecture for
Hands Free Assistance to People with Mobility Restrictions
Joceli Mayer
Department of EE, Federal University of Santa Catarina,
PSILAB - Research Laboratory on Signal Processing,
Communication and Recognition, Santa Catarina, Brazil

11:40a - 12:00p: Implementation of Automated Data Warehouse Design Tool:
From NoSQL to RDBMS
JongHyun Lim, InSung Kim, JongHoon Chun
Prompt Technology, Inc., Seoul, Republic of Korea

12:00 - 12:20pm: A Simple Blockchain-based Peer-to-Peer Water Trading
System Leveraging Smart Contracts
Seung Jae Pee, Jongho Nang, Juwook Jang
Department of EE, Sogang University, Seoul, Republic of
Korea; Department of CSE, Sogang University, Seoul,
Republic of Korea

12:20 - 12:40pm: Threat Adjusting Security
Gideon Samid
Department of EE & CS, Case Western Reserve University,
Cleveland, Ohio, USA; BitMint, LLC, USA

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

01:30 - 03:00pm: 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;
Recipient of Fellowship from Lawrence Livermore National
Laboratories (LLNL) for Cyber Defenders program
(LOCATION: Galleria A) <---------- Note the location change

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03:00 - 03:40pm:   POSTER SESSION A
                   (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                   July 30, 2018 (Monday)
                   (LOCATION: Lotus Ballrooms 1-2)

           O.   Digital Twin-based Smart Factory CPS Modeling
                Taioun Kim
                Department of Industrial & Management Engineering,
                Kyungsung University, Busan, Republic of Korea
           O.   Design of a Low Power, Reliable and Secure Multicore
                Embedded RTOS
                Sang Cheol Kim, Jeong-Woo Lee, Pyeongsoo Mah
                Embedded Software Research Group, Electronics and
                Telecommunications of Research Institute (ETRI), Daejeon,
                South Korea
           O.   ...
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SESSION 2-ESCS: **INTERNET OF THINGS, CYBER PHYSICAL SYSTEMS, SECURITY, & APPLICATIONS**
        Chairs: Prof. Xiang Cao* and Dr. Promise Mvelase**
               * School of Computing and Information Systems, Grand Valley State University, USA
               **CHPC Meraka Institute, South Africa
        July 30, 2018 (Monday); 03:40pm - 06:20pm
        (LOCATION: Galleria C) <---------- Note the location change

03:40 - 04:00pm: Investigating Machine Learning Classifiers on a Brain Machine Interface, for Cyber Physical Systems Applications
George Pippos, Robert Maurer, Matthew D'Souza, and Montserrat Ros
School of IT & EE, University of Queensland, Brisbane, Australia; School of Electrical & Telecommunications Engineering, University of Wollongong, Australia

04:00 - 04:20pm: A STAMP-Based Approach to Developing Quantifiable Measures of Resilience
Paul M. Beach, Robert F. Mills, Brandon C. Burfeind, Brent T. Langhals, Logan O. Mailloux
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

04:20 - 04:40pm: Smart Home Vulnerabilities - A Survey
Abdiladif Said, Abdisalan Jama, Faysal Mahamud, and Prakash Ranganathan
Department of EE, University of North Dakota, Grand Forks, North Dakota, USA

04:40 - 05:00pm: Execution Control in Mixed-Criticality Systems
A. Crespo, P. Balbastre, C. J. Simo
Instituto de Automatica e Informatica Industrial, Universitat Politecnica de Valencia, Spain

05:00 - 05:20pm: Next Generation Transportation Vulnerabilities
William Kayser, Steve Buchhop, Brian Morrow, and Prakash Ranganathan
Department of EE, University of North Dakota, Grand Forks, North Dakota, USA

05:20 - 05:40pm: Time-based CFLRU: A Novel Cache Replacement Algorithm for Flash Memory
Thien-Binh Dang, Hyohoon Ahn, Jisoo Lee, Hyunseung Choo
College of Software, Sungkyunkwan University, Rep. of Korea

05:40 - 06:00pm: Defense Techniques Against Cyber Attacks on Unmanned Aerial Vehicles
Charan Gudla, Md. Shohel Rana, Andrew H. Sung
School of Computing Sciences and Computer Engineering, University of Southern Mississippi, Hattiesburg, USA

06:00 - 06:20pm: Securing Virtualized FPGAs for an Untrusted Cloud
Paul R. Genssler, Oliver Knodel, Rainer G. Spallek
Department of CS, Technische Universitat Dresden, Germany

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

SESSION 4-SAM: **SECURITY EDUCATION + BIOMETRICS**
                        Chair: Prof. Guillermo Francia,
                        **   Jacksonville State University, USA**
                        July 31, 2018 (Tuesday); 08:20am - 10:40am
                        (LOCATION: Galleria A) <---------- Note the location change

08:20 - 08:40am: Selection and Promotion Criteria of Information Security
                    Personnel: Lebanon case study
                    Esther Nehme, Jacques Bou Abdo, Jacques Demerjian
                    Center for Advanced Technology Development, Lebanon;
                    CS Department, Notre Dame University, Deir el Qamar,
                    Lebanon; Faculty of Sciences, Lebanese University, Lebanon

08:40 - 09:00am: Scenario-based Learning Approach to Industrial Control
                    Systems Security Training
                    Guillermo A. Francia
                    Center for Information Security and Assurance,
                    Jacksonville State University, Jacksonville, Alabama, USA

09:00 - 09:20am: Get a Clue: A New EDURange Scenario for Password Cracking
                    Rosemary Arends, Raya Deussen, Benjamin Green, Jodi Rush,
                    and Jens Mache
                    Lewis & Clark College, Portland, Oregon, USA

09:20 - 09:40am: Social Engineering and its Impacts on Critical
                    Infrastructure: A Comprehensive Survey
                    Jason Pollack, Prakash Ranganathan
                    Department of Electrical Engineering & Mines,
                    University of North Dakota, North Dakota, USA

09:40 - 10:00am: ADS-B, GPS, IFF, Aviation Navigation Systems Security
                    Jason Pollack, Prakash Ranganathan
                    Department of Electrical Engineering & Mines,
                    University of North Dakota, North Dakota, USA

10:00 - 10:20am: A Comparison of Machine Learning Classifiers for Acoustic
                    Gait Analysis
                    Jasper Huang, Fabio Di Troia, Mark Stamp
                    Department of Computer Science, San Jose State University,
                    California, USA

10:20 - 10:40am: BREAK

SESSION 5-SAM: **SECURITY MANAGEMENT**
                Chair: Dana Al-Tehmazi,
                     Bahrain Internet Exchange, Bahrain
                July 31, 2018 (Tuesday); 10:40am - 12:20pm
                (LOCATION: Galleria A) <---------- Note the location change

10:40 - 11:00am: Investigation of Vulnerabilities with Monitoring Tools
                Kazi Zunnurhain, Ankur J. Patel, Mairura James
                Kean University, New Jersey, USA

11:00 - 11:20am: Evaluating Security of Software Through Vulnerability
                Management Metrics
                Jonathan Sonnerup, Martin Hell
                Department of Electrical and Information Technology,
                Lund University, Lund, Sweden

11:20 - 11:40am: Cyber Security Trust Framework
                Dana Isa Al-Tehmazi
                Department of Information Communication Technology,
                Bahrain Internet Exchange, Manama, Kingdom Of Bahrain

11:40 - 12:00pm: A Blockchain System Integrity Model
                Mahalingam Ramkumar
                Department of CSE, Mississippi State University, USA

12:00 - 12:20pm: Predicting Insider Threats by Behavioural Analysis using
                Deep Learning
                Kaushal Bhavsar, Bhushan Trivedi
                GLS School of Research & Innovation, Ahmedabad, India;
                GLS Institute of Computer Technology, Ahmedabad, India

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

01:30 - 03:00pm   **KATHY LIZSKA MEMORIAL TALK:**
                Terrorist Threat: How Resilient are our Train Networks?
                KEYNOTE SPEAKER: Dr. Martin Zsifkovits,
                University of Armed Forces Munich, Munchen, Germany
                (LOCATION: Galleria A) <---------- Note the location change

03:00 - 03:40pm: POSTER SESSION B
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
July 31, 2018 (Tuesday)
(LOCATION: Lotus Ballrooms 1-2)

O. Analysis of MIS Journal Publication in Taiwan
    Yung-Ting Chuang, Hsi-Peng Kuan
    Department of Information Management, National Chung Cheng
    University, Chia-Yi, Taiwan
O. A Study of Interference Characteristics of Human Body
    Communication in Wearable Environments
    Kunho Park, Meina Li, Youn Tae Kim
    IT Fusion Technology Research Center, Chosun University,
    Gwangju, Republic of Korea; College of Instrumentation and
    Electrical Engineering, Jilin University, Jilin, P. R. China
O. Experimental Ultrasonic Communication for Intra-body
    Sensor Networks
    Meina Li, Youn Tae Kim
    College of Instrumentation and Electrical Engineering,
    Jilin University, Jilin, P. R. China; IT Fusion Technology
    Research Center, Chosun University, Gwangju, Republic of Korea
O. Design and Implementation of Intelligent Rhythmic Robot
    Based on User Preference
    Taebok Yoon, Eun-Sook Na
    Department of Software Engineering, Seoil University,
    Seoul, South Korea; Department of Early Childhood
    Education, Seoil University, Seoul, South Korea
O. ...

**03:40 - 04:20pm: Attendees should proceed to "Lotus Ballroom 3" where
relevant talks are being presented.**

SESSION 3-ESCS: **EMBEDDED & CYBER PHYSICAL SYSTEMS + APPLICATIONS**
Chairs: Prof. Damian Valles* and Prof. Taioun Kim**
* Ingram School of Engineering, Texas State University, Texas, USA
**Professor & Dean, Division of External Affairs, Department of Industrial & Management Engineering, Kyungsung University, Busan, Republic of Korea
July 31, 2018 (Tuesday); 04:20pm - 06:00pm
(LOCATION: Lotus Ballroom 3) <---------- Note the location change

04:20 - 04:40pm: LwProf: Lightweight Profiling and Coverage Tool for
                   Embedded Software
                   Evan Lojewski, Kristen R. Walcott
                   EM Microelectronic-US Inc., Colorado Springs, Colorado, USA;
                   University of Colorado - Colorado Springs, Colorado, USA

04:40 - 05:00pm: IP Packet Loss and RTT Calculation Simulation Using Low-Cost
                   Embedded Real-Time Systems
                   Bikramjit Dasgupta, Damian Valles
                   Ingram College of Engineering, Texas State University,
                   San Marcos, Texas, USA

05:00 - 05:20pm: RPM Measurement 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

05:20 - 05:40pm: Hardening Your Network Before the Next Attack
                   James McGinnis, Jr., Kevin Berisso
                   University of Memphis, Tennessee, USA

05:40 - 06:00pm: An Electrical Vehicle Charging Station Monitoring
                   Embedded Design
                   Noushin Azami, Damian Valles
                   Ingram School of Engineering, Texas State University,
                   San Marcos, Texas, USA

SESSION 4-ICWN: **WIRELESS NETWORKS, MOBILITY, SENSOR NETWORKS, & APPLICATIONS**
Chairs: Prof. Hussain Al-Asaad
Electrical and Computer Engineering,
University of California - Davis, California, USA
July 31, 2018 (Tuesday); 06:00pm - 07:20pm
(LOCATION: Lotus Ballroom 3) <---------- Note the location change

06:00 - 06:20pm: TADS: Automating Device State to Android Test Suite Testing
Jonathan Sanders, Kristen Walcott
Computer Science Department, University of Colorado,
Colorado Springs, Colorado, USA

06:20 - 06:40pm: Intentional Collisions for Preventing Illegal Overhearing
by Eavesdropper Node in Wireless Sensor Networks
M. Okuri, Hiroaki Higaki
Department of Robotics and Mechatronics,
Tokyo Denki University, Adachi, Tokyo, Japan

06:40 - 07:00pm: Design of Mobile Pest Recognition Program Using Tensor Flow
Hyeon O. Choe, Hyun Yoe
Department of Information and Communication Engineering,
Sunchon National University, Republic of Korea

07:00 - 07:20pm: Automated Electricity Power Metering System
I. E. Akwuiwu, D. I. Okolo, R. E. Okonigene
Department of Electrical and Electronics Engineering,
Ambrose Alli University, Ekpoma, Edo State, Nigeria;
Human Resources Management, Wisconsin International
University, Accra, Ghana

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


08:20 - 09:20am:   INVITED LECTURE:
                   Reducing Cyber Security Non-linearity, Risks and
                   Complexity utilizing Axiomatic Design and Autonomous
                   AI/Machine Learning
                   Dr. John N. Carbone
                   Forcepoint Cyber Security, USA; Senior Director,
                   Technical Solutions & scientific advisor to Forcepoint
                   LLC, Global Governments and Critical Infrastructure
                   division
                   (LOCATION: Galleria B) <---------- Note the location change

09:20 - 10:20am:   INVITED TUTORIAL & LECTURE:
                   Big Data Analytics with Spark
                   Prof. Mark C. Lewis
                   Department of CS, Trinity University, San Antonio,
                   Texas, USA; Author of "Programming and Problem-Solving
                   Using Scala" series of books.
                   (LOCATION: Galleria B) <---------- Note the location change

10:20 - 10:40am:   BREAK
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SESSION 8-ICAI/ESCS: EMBEDDED & CYBER PHYSICAL SYSTEMS + APPLICATIONS
                    Chairs: Prof. Taioun Kim* and Prof. Damian Valles**
                         * Professor & Dean, Division of External Affairs,
                           Department of Industrial & Management Engineering,
                           Kyungsung University, Busan, Republic of Korea
                         **Ingram School of Engineering, Texas State University,
                           Texas, USA
                    August 1, 2018 (Wednesday); 10:40am - 12:40pm
                    (LOCATION: Galleria C)

10:40 - 11:00am: Design of a Sensor-Based Adaptive Smart Home System using
                  ARM Cortex-M3
                  Md Inzamam Ul Haque, Damian Valles
                  Ingram School of Engineering, Texas State University,
                  San Marcos, Texas, USA

11:00 - 11:20am: Effectiveness of Intermediate Values at Outputs of Adder Designs
                  Angela Tobin, Hussain Al-Asaad
                  Department of Electrical and Computer Engineering,
                  University of California at Davis, California, USA

11:20 - 11:40am: Monitoring and Control of Real-Time Remote Data on Desktop,
                  Android & Web-based Application & Automatic Water Pump Control
                  Abdullah Al Bashit, Damian Valles
                  Ingram School of Engineering, Texas State University,
                  San Marcos, Texas, USA

11:40 - 12:00pm: Inflight Drone Re-routing Method with Google Map on Smart Pad
                  Boyeon Kim, Munseong Jung, Yunseok Chang
                  Software Education Committee, Center for Creative Convergence
                  Education, Hanyang University, Seoul, Republic of Korea;
                  Department of Computer Engineering, Daejin University,
                  Kyunggi, Republic of Korea

12:00 - 12:20pm: Early Warning Dangerous Temperature Embedded System Using
                  Single Exponential Smoothing for Firefighters Safety
                  Farah Jaradat, Damian Valles
                  Ingram School of Engineering, Texas State University,
                  San Marcos, Texas, USA

12:20 - 12:40pm: Gas and Air Quality Detection, Monitoring, and Alerting
                  Using Embedded System for Nanofabrication Facility
                  Mohi Uddin Jewel, Damian Valles
                  Ingram School of Engineering, Texas State University,
                  San Marcos, Texas, USA

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

SESSION 9-SAM: **NETWORK AND HARDWARE SECURITY**
Chair: Prof. Levent Ertaul,
      California State University East Bay, California, USA
August 1, 2018 (Wednesday); 01:20pm - 03:00pm
(LOCATION: Galleria A)

01:20 - 01:40pm: Detecting Vulnerabilities within Black Boxed CPUs using
                  Assertion Based Verification for Enhanced Security
                  Juan Portillo, Eugene John
                  Department of Electrical and Computer Engineering,
                  University of Texas at San Antonio, Texas, USA

01:40 - 02:00pm: Network Security Risk Assessment Based on Weighted PageRank
                  Lei Ai, Tao Li, Xiaojie Liu, Hui Zhao, Jin Yang
                  College of CS, Sichuan University, Chengdu, P. R. China;
                  College of Cybersecurity, Sichuan University, Chengdu,
                  P. R. China

02:00 - 02:20pm: FREE SLOT

02:20 - 02:40pm: FREE SLOT

02:40 - 03:00pm: FREE SLOT

03:00 - 03:40pm: **POSTER SESSION C**
(INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
August 1, 2018 (Wednesday)
(LOCATION: Lotus Ballrooms 1-2)

03:40 - 05:40pm: **INVITED LECTURE:**
Applications of Behavior-Based Authentication in the Business World
Dr. Dawud Gordon
CEO & Co-Founder at TwoSense, New York, USA
(LOCATION: Galleria B) <---------- Note the location change

05:40 - 07:40pm: **INVITED TUTORIAL & LECTURE:**
Darknets and Cryptocurrency
Andrew Johnston
Mandiant (Consultant), a division of FireEye
(LOCATION: Galleria B) <---------- Note the location change

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

08:00 - 08:20am:  FREE SLOT
08:20 - 08:40am:  FREE SLOT
08:40 - 09:00am:  FREE SLOT


SESSION 5-ICWN:   WIRELESS NETWORKS, MOBILITY, SENSOR NETWORKS, AND
                  APPLICATIONS
                  Chairs: Stephen P. Reichhart* and Prof. Levent Ertaul**
                  * Air Force Research Laboratory, Rome, New York, USA
                  **California State University, East Bay, California, USA
                  August 2, 2018 (Thursday); 09:00am - 11:20am
                  (LOCATION: Galleria B) <---------- Note the location change

09:00 - 09:20am:  Demand Response Based VOC Environmental Control Through
                  Wireless Sensor Networks
                  Varick L. Erickson
                  Computer Science, California State University East Bay,
                  California, USA

09:20 - 09:40am:  Post-Quantum Cryptography on IoT: Merkle's Tree
                  Authentication
                  Levent Ertaul, Bharani Kodirangaiah
                  California State University East Bay, California, USA

09:40 - 10:00am:  Hidden Node Avoidance in LTE Licensed Assisted Access
                  (LAA) Networks Using Full Duplex Radio (FDR) Technology
                  Hung-Hsiang Liang, Te-Wei Chiang, Wei-Xun Kuo,
                  Chen-Hao Huang, Chin-Ya Huang, Shiann-Tsong Sheu
                  Department of Communication Engineering, National Central
                  University, Taiwan;  Department of ECE, National Taiwan
                  University of Science and Technology, Taiwan

10:00 - 10:20am:  Improved Optimization Strategies for Congestion Avoidance
                  in Complex Network
                  Zhifei Zhang, Jingpeng Tang, Man Liu, Qianwen Bi
                  Department of CS, Utah Valley University, Utah, USA;
                  Finance and Economics Department, Utah Valley University,
                  Utah, USA;  School of Computer and Information Technology,
                  Beijing Jiaotong University, Beijing, P. R. China

10:20 - 10:40am:  BREAK

10:40 - 11:00am:  Design and Implementation of Algorithm for Selecting Fruit
                  Tree Insects Using CNN Technique Based on Deep Learning
                  Seongjin Kim, Hyun Yoe
                  Department of Information and Communication Engineering,
                  Sunchon National University, Republic of Korea

11:00 - 11:20am:  Design of Deep Learning Based Fruit Classification
                  System Platform
                  Sooho Jeong, Hyun Yoe
                  Department of Information and Communication Engineering,
                  Sunchon National University, Republic of Korea
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**SESSION 6-ICOMP: INTERNET COMPUTING, MOBILE DEVICES, COMMUNICATION
SYSTEMS, INTERNET OF THINGS + DATA SCIENCE
Chair: Prof. Suhair H. Amer
        Department of Computer Science, Southeast Missouri
        State University, Cape Girardeau, Missouri, USA
August 2, 2018 (Thursday); 11:20am - 03:00pm
(LOCATION: Galleria B) <---------- Note the location change**

11:20 - 11:40am: Comparing Power and Energy Usage for Scientific
                  Calculation with and without GPU Acceleration on a
                  Raspberry Pi Model B+ and 3B
                  Qihao He, Vincent Weaver, Bruce Segee
                  Department of ECE, University of Maine, Orono, Maine, USA

11:40 - 12:00pm: CrowdS: Crowdsourcing with Smart Devices
                  Ville Granfors, Johan Waller, Petar Mrazovic, and
                  Mihhail Matskin
                  Department of Software and Computer Systems, School of
                  EE & CS, Royal Institute of Technology (KTH), Sweden

12:00 - 12:20pm: Cache Optimization in Reduction of Redundant Traffic with
                  Variety in Delivery Progress and Transmission Rate
                  Kyosuke Doh, Kenji Ichijo, Akiko Narita
                  Graduate School of Science & Technology,
                  Hirosaki University, Japan

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

01:20 - 01:40pm: DIY Augmented Reality: Two Possible Approaches
                  Ronald P. Vullo, Michelle A. Catalfamo
                  Department of Information Sciences and Technologies,
                  RIT Center for Media, Arts, Games, Interaction & Creativity
                  (MAGIC), Golisano College of Computing and Information
                  Sciences, Motion Picture Science, Rochester Institute of
                  Technology, Rochester, New York, USA

01:40 - 02:00pm: Design of an Intrusion Detection System for IoT
                  Environments with Remote Supervision
                  Paola Garcia, Maureen Parra, Edward Guillen, Carlos Ramos
                  Military University Nueva Granada, Bogota, Colombia

02:00 - 02:20pm: IoT Based Solution for Level Detection using CNN and OpenCV
                  Durvesh Pathak, Raghavan Naresh Sarangapani, Dewant Katare,
                  Akash Sunil Gaikwad, Mohamed El-Sharkawy
                  Purdue School of Engineering and Technology, IUPUI,
                  Indiana, USA

02:20 - 02:40pm: Simultaneous Localization and Mapping: Military
                  Applications - Student Experience
                  Suhair Amer, Deanna Tatum, Jesse Hankins, Kyle Meystedt
                  Department of Computer Science, Southeast Missouri State
                  University, Missouri, USA

02:40 - 03:00pm: Wireless Response System for multidisciplinary Teaching
                  and Learning - Case studies
                  Joan Lu, Qiang Xu, Mike Joy, Simon McKenna, Malgorzata
                  Pankowska, Stuart Toddington, Artem Boyarchuk, Shulun Guo
                  University of Huddersfield, UK; University of Warwick, UK;
                  University of Economics, Katowice, Poland; National
                  Aerospace University, Ukraine; Shanghai Jiaotong University,
                  P. R. China

03:00 - 03:40pm: POSTER SESSION D
                    (INCLUDES POSTERS + A SUBSET OF SHORT & POSITION PAPERS)
                    August 2, 2018 (Thursday)
                    (LOCATION: Lotus Ballrooms 1-2)

03:40 - 06:00pm: During this period, ESCS'18, ICOMP'18, and ICWN'18
                    attendees are encouraged to participate in sessions
                    belonging to BIOCOMP (Bioinformatics), FECS (Education),
                    ICAI (Artificial Intelligence), PDPTA (Parallel and
                    Distributed Processing), or SERP (Software Engineering)
                    conferences. These sessions discuss topics that may be of
                    interest to ESCS'18, ICOMP'18, and ICWN'18 attendees.