GENERAL INFORMATION

IMPORTANT: To prepare the congress program/schedule, the title of

all papers, authors names, affiliations were extracted

from the meta-data of the draft paper submissions

(manuscripts submitted by the authors for evaluation).

Any changes to the titles of the papers, authors names,

affiliations, ... are not reflected in this program. The

FINAL versions of the papers (uploaded to the publication

portal) will have the correct information.

REGISTRATION: For Congress Receipt Pickup & Booklet(s), ...

(LOCATION: Lotus Ballrooms 1)

July 26 (Sunday): 05:00pm - 07:00pm

July 27 (Monday): 07:30am - 05:00pm

July 28 (Tuesday): 07:30am - 05:00pm

BREAKFASTS: July 27 (Monday): 07:30am - 08:30am

July 28 (Tuesday): 07:30am - 08:30am

(LOCATION: Lotus Ballrooms 1)

DINNER: July 27 (Monday): 07:30pm - 10:00pm

(LOCATION: Velvet Room Blue)

BREAKS: Refreshments

July 27 (Monday): 10:20am - 10:40am

July 27 (Monday): 03:00pm - 03:40pm

July 28 (Monday): 10:20am - 10:40am

July 28 (Monday): 03:00pm - 03:40pm

(LOCATION: Lotus Ballrooms 1)

PROVISIONAL PLAN FOR JULY 29 AND/OR JULY 30:

Informal panel discussions can be arranged on-site

at the congress (this will be discussed with the

attendees on July 27 - the logistics will be managed

as a team).

July 27

07:30a - 05:00p: REGISTRATION

(LOCATION: Lotus Ballrooms 1; Registration Counter/Desk)

08:30 - 09:00am: CONGRESS WELCOME REMARKS - July 27, Monday:

Professor Emeritus Hamid R. Arabnia (Chair, Steering

Committee & Coordinator), Department of Computer Science,

University of Georgia, USA; Editor-in-Chief, The Journal

of Supercomputing (Springer); Fellow, Center of Excellence

in Terrorism, Resilience, Intelligence & Organized Crime

Research (CENTRIC).

(LOCATION: Galleria B-C)

09:00 - 09:10am: WELCOME - July 27, Monday:

Richard Bayley

Business Development Manager

Colorado Engineering, Inc., Colorado Springs, Colorado, USA

(LOCATION: Galleria B-C)

09:10 - 10:10am: KEYNOTE LECTURE/ADDRESS - Juy 27, Monday:

THE PSYCHOLOGY OF ARTIFICIAL INTELLIGENCE: A CONVERSATION

WITH SANDI

Dr. James A. Crowder

Systems Fellow at Colorado Engineering, Inc., USA

(Formerly at Raytheon Technologies. Recipient of technical

achievement awards from Lockheed Martin, General Dynamics,

Northrup Grumman, & Raytheon Technologies)

(LOCATION: Galleria B-C)

10:10 - 10:20am: COMMENTS - CONGRESS LOGISTICS/PLAN

(LOCATION: Galleria B-C)

10:20 - 10:40am: BREAK

(LOCATION: Lotus Ballrooms 1)

SESSION 1-MON: COMPUTATIONAL SCIENCE, DATA SCIENCE, AI/GAN AND APPLICATIONS

Chair: Jonathan Fowler; Department of Computer Science,

Colorado Technical University, Colorado Springs, Colorado, USA

July 27, 2020 (Monday); 10:40am - 11:40am

(LOCATION: Galleria B-C)

10:40 - 11:00am: FCS4092

Evaluation of Classical Data Structures in the Java Collections

Framework

Anil L. Pereira

School of Science and Technology, Georgia Gwinnett College,

Lawrenceville, Georgia, USA

11:00 - 11:20am: ICA2533

Fine Tuning a Generative Adversarial Network's Discriminator

for Student Attrition Prediction

Eric Stenton, Pablo Rivas\*, Eitel Lauria

Department of Computer Science, Marist College,

Poughkeepsie, New York, USA

July 27

11:20 - 11:40am: IKE3029

A Dynamic Data and Information Processing Model for Unmanned

Aircraft Systems

Mikaela D. Dimaapi, Ryan D. L. Engle\*, Brent T. Langhals,

Michael R. Grimaila, Douglas D. Hodson

US Air Force Institute of Technology (AFIT), USA

SESSION 2-MON: COMPUTATIONAL SCIENCE, DATA SCIENCE, AND APPLICATIONS

Chair: Jonathan Fowler; Department of Computer Science,

Colorado Technical University, Colorado Springs, Colorado, USA

July 27, 2020 (Monday); 11:40am - 12:20pm

(LOCATION: Galleria B-C)

11:40a - 12:00p: HIM2143

DRDr: Automatic Masking of Exudates and Microaneurysms Caused By

Diabetic Retinopathy Using Mask R-CNN and Transfer Learning

Farzan Shenavarmasouleh\*, Hamid R. Arabnia

Department of Computer Science, University of Georgia, USA

12:00 - 12:20pm: HIM2374

Security and Usability Considerations for a mHealth Application

for Emergency Medical Services

Abdullah Murad, Benjamin Schooley\*, Thomas Horan

College of Computer & Information Systems, Umm A-Qura University,

Mecca, Saudi Arabia; College of Engineering and Computing,

University of South Carolina, Columbia, South Carolina, USA;

School of Business, University of Redlands, California, USA

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

SESSION 3-MON: AI, COGNITIVE COMPUTING, CPS/IOT, AND APPLICATIONS

Chair: Ehsan Asali; Department of Computer Science,

University of Georgia, USA

July 27, 2020 (Monday); 01:20pm - 03:00pm

(LOCATION: Galleria B-C)

01:20 - 01:40pm: ESC2277

Wireless Blind Spot Detection and Embedded Microcontroller

Bassam Shaer\*, Danita L. Marcum, Curtis Becker,

Gabriella Gressett, Meridith Schmieder

Electrical and Computer Engineering Department, University of

West Florida, Fort Walton Beach, Florida, USA

01:40 - 02:00pm: ICA2391

Dynamic Heuristics for Surveillance Mission Scheduling with

Unmanned Aerial Vehicles in Heterogeneous Environments

Dylan Machovec, James A. Crowder, Howard Jay Siegel,

Sudeep Pasricha, Anthony A. Maciejewski

Department of Electrical & Computer Engineering, Colorado State

University, Fort Collins, Colorado, USA; Department of Computer

Science, Colorado State University, Fort Collins, Colorado, USA;

Colorado Engineering Inc., Colorado Springs, Colorado, USA;

02:00 - 02:20pm: ACC2214

A Hybrid Cognitive System for Radar Monitoring and Control using

the Rasmussen Cognition Model

James A. Crowder\*, John N. Carbone

Colorado Engineering Inc., Colorado Springs, Colorado, USA;

Department of Electrical and Computer Engineering,

Southern Methodist University, Dallas, Texas, USA

July 27

02:20 - 02:40pm: ICA2289

Human Motion Recognition Using Zero-Shot Learning

Farid Ghareh Mohammadi\*, Ahmed Imteaj, M. Hadi Amini, H. Arabnia

Department of Computer Science, University of Georgia, USA;

School of Computing & Information Sciences, Florida International

University, Miami, Florida, USA

02:40 - 03:00pm: ICD8035

Integrated Plant Growth and Disease Monitoring with IoT and

Deep Learning Technology

Jonathan Fowler\*, Soheyla Amirian

Department of Computer Science, Colorado Technical University,

Colorado Springs, Colorado, USA; Department of Computer Science,

University of Georgia, Athens, Georgia, USA

03:00 - 03:20pm: BREAK & POSTERS

July 27, 2020 (Monday)

(LOCATION: Lotus Ballrooms 1)

03:20 - 06:00pm: Due to challenges with the Coronavirus pandemic, authors and

speakers were given the following options: (a) Not presenting;

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online via Zoom. Unfortunately, some authors/speakers did not

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- Congress attendees can arrange an informal panel discussion

(INTERESTING SUBJECTS: The Impact of CS/IT to Employment;

Societal Impact of AI; AI and Ethical Issues; Online classes

and Impact on Institutions; ...)

07:30 - 10:00pm: CONFERENCE RECEPTION DINNER / SOCIAL

July 27 - Monday; 07:30pm

(LOCATION: Velvet Room Blue)

July 27

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were given the following options: (a) Not presenting; (b) Providing

pre-recorded presentations; and (c) Presenting online via ZOOM.

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These presentations will be projected on to a large screen for the

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Speakers can (if they wish) ZOOM RECORD their own presentations and

provide a URL/web address to the congress (cs@american-cse.org) - we

would then provide the URL to others AFTER the congress (during the

month of August).

SESSION ZOOM-1-MON: ONLINE/ZOOM SESSION

DATA SCIENCE, AI, LEARNING STRATEGIES, AND SOFTWARE

ENGINEERING & APPLICATIONS

Chairs: TBA

July 27, 2020 (Monday); 08:20am - 10:00am

(LOCATION: Galleria D-E)

08:20 - 08:40am: ICD8064

How is Twitter Talking about COVID-19?

Jesus Leopoldo Llano Garcia, Hector G. Ceballos,

Francisco J. Cantu

Tec de monterrey, Mexico

08:40 - 09:00am: PDP2604

Challenges for Swarm of Drone-Based Intelligence

Muhammed Akif Agca\*, Peiman Alipour Sarvari, Sebastien Faye,

Djamel Khadraoui

Luxembourg Institute of Science and Technology - LIST,

Esch-Sur-Alzette, Luxembourg

09:00 - 09:20am: EEE2342

Emerging Interactions of ERP, Big Data and Automotive Industry

Florie Bandara, Uchitha Jayawickrama\*

School of Business and Economics, Loughborough University,

Loughborough, United Kingdom

09:20 - 09:40am: EEE4059

The Effect of Matching Learning Material to Learners' Dyslexia

Type on Reading Performance

Hadeel Al-Dawsari\*, Robert Hendley

Department of Computer Sciences, Princess Nourah Bint

Abdulrahman University, Riyadh, Saudi Arabia;

School of Computer Science, University of Birmingham,

Birmingham, United Kingdom

09:40 - 10:00am: EEE2908

Agile IT Service Management Frameworks and Standards - a Review

Manuel Mora\*, Jorge Marx-Gomez, Fen Wang, Oswaldo Diaz

Information Systems, Autonomous University of Aguascalientes,

Aguascalientes, Ags., Mexico; Informatics, University of

Oldenburg, Germany; Information Technology and Administration

Management, Central Washington University, Ellensburg,

Washington, USA; Central Data Center, INEGI, Aguascalientes,

Ags., Mexico

July 27

SESSION ZOOM-2-MON: ONLINE/ZOOM SESSION

ARTIFICIAL INTELLIGENCE, CPS, AND APPLIED COGNITIVE COMPUTING

Chairs: TBA

July 27, 2020 (Monday); 10:00am - 11:00am

(LOCATION: Galleria D-E)

10:00 - 10:20am: ACC2970

Defending Aviation Cyber-Physical Systems From DDOS Attack Using

NARX Model

Abdulaziz A. Alsulami\*, Saleh Zein-Sabatto

Department of Electrical and Computer Engineering, Tennessee

State University, Nashville, Tennessee, USA

10:20 - 10:40am: ICA2333

The Effectiveness of Data Mining Techniques at Estimating Future

Population Levels for Isolated Moose Populations

Charles E. Knadler, Jr.

Computer Science, Utah Valley University, Orem, Utah, USA

10:40 - 11:00am: ICA2995

Using Games for Problem Solving in Complex Environments with

Cultural Algorithms

Faisal Waris\*, Robert Reynolds

Wayne State University, Detroit, Michigan, USA

SESSION ZOOM-3-MON: ONLINE/ZOOM SESSION - SPECIAL SESSION

(LOCATION: Galleria D-E)

11:00 - 11:40am: Want to Publish a Book?

Join our Webinar with a Springer Editor

Mary James

Senior Editor, Springer, New York, USA

SESSION ZOOM-4-MON: ONLINE/ZOOM SESSION

SCIENTIFIC COMPUTING AND COMPUTATIONAL SCIENCE

Chairs: TBA

July 27, 2020 (Monday); 11:40am - 01:00pm

(LOCATION: Galleria D-E)

11:40a - 12:00p: CSC2487

Long-Short Term Memeory Neural Network on the Trajectory

Computing of Directly Dynamics Simulation

Fred Wu\*, Colmenares-Diaz Eduardo, Poojitha Chapala,

Tejaswi Jonnalagadda, Sailaja Peruka, Pooja Sonmale

Department of Mathematics and Computer Science, West Virginia

State University Institute, West Virginia, USA;

Department of Computer Science, Midwestern State University,

Wichita Falls, USA

July 27

12:00 - 12:20pm: CSC2517

Dielectric Polymer Genome: Integrating Valence-Aware Polarizable

Reactive Force Fields and Machine Learning

Kuang Liu\*, Antonina Nazarova, Ankit Mishra, Yingwu Chen,

Haichuan Lyu, Longyao Xu, Yue Yin, Qinai Zhao, Rajiv Kalia,

Aiichiro Nakano, Ken-ichi Nomura, Priya Vashishta, Pankaj Rajak

Collaboratory of Advanced Computing and Simulations, Department

of Computer Science, Department of Physics & Astronomy, Department

of Chemical Engineering & Materials Science, Department of

Biological Sciences, University of Southern California,

Los Angeles, California, USA; Loker Hydrocarbon Research Inst.

and the Bridge@USC, Department of Chemistry, University of

Southern California, California, USA; Mork Family Department of

Chemical Engineering & Materials Science, University of Southern

California, California, USA; Argonne Leadership Computing Facility,

Argonne National Laboratory, Illinois, USA

12:20 - 12:40pm: CSC2920

Orientation and Line Thickness Determination in Binary Images

Sean Matz

Claremont Graduate University, Claremont, California, USA

12:40 - 01:00pm: CSC2907

Comparison of the IaaS Security Available from the Top Three

Cloud Providers

L. Kate Tomchik

Kennesaw State University, Marietta, Georgia, USA

SESSION ZOOM-5-MON: ONLINE/ZOOM SESSION

FRONTIERS IN EDUCATION: TEACHING AND LEARNING STRATEGIES

AND SYSTEMS

Chairs: TBA

July 27, 2020 (Monday); 01:00pm - 02:20pm

(LOCATION: Galleria D-E)

01:00 - 01:20pm: FEC2347

Parent Teacher Portal (PTP): A Communication Tool

Mudasser F. Wyne\*, Matthew Hunter, Joshua Moran, and

Babita Patil

School of Professional Studies, National University,

San Diego, California, USA

01:20 - 01:40pm: FEC2527

Computational Thinking and Flipped Classroom Model for

Upper Division Computer Science Majors

Antonio-Angel L. Medel\*, Anthony C. Bianchi, Alberto C. Cruz

Department of Computer & Electrical Engineering and

Computer Science, California State University, Bakersfield,

California, USA

01:40 - 02:00pm: FEC4038

A Dynamic Teaching Learning Methodology Enabling Fresh

Graduates Starting Career at Mid-Level

Abubokor Hanip\*, Mohammad Shahadat Hossain

Founder and CEO, PeopleNTech Institute of Information

Technology, Inc.,USA; Department of Computer Science and

Engineering, University of Chittagong, Bangladesh

July 27

02:00 - 02:20pm: FEC4037

Preparing Computing Graduates for the Workplace:

An Assessment of Relevance of Curricula to Industry

Ioana Chan Mow\*, Elisapeta Mauai, Vaisualua Okesene, and

Ioana Sinclair

Faculty of Science, National University of Samoa, Samoa

SESSION ZOOM-6-MON: ONLINE/ZOOM SESSION

APPLIED COGNITIVE COMPUTING, AI, AND APPLICATIONS

Chairs: TBA

July 27, 2020 (Monday); 02:20pm - 04:00pm

(LOCATION: Galleria D-E)

02:20 - 02:40pm: ACC2446

An Adaptive Tribal Topology for Particle Swarm Optimization

Kenneth Brezinski\*, Ken Ferens

Department of Electrical and Computer Engineering,

University of Manitoba, Winnipeg, Canada

02:40 - 03:00pm: ACC2596

A Hybrid Chaotic Activation Function for Artificial

Neural Networks

Siobhan Reid\*, Ken Ferens

Department of Electrical and Computer Engineering,

University of Manitoba, Winnipeg, MB, Canada

03:00 - 03:20pm: ACC2927

A Cognitive Unsupervised Clustering for Detecting Cyber Attacks

Kaiser Nahiyan\*, Samilat Kaiser, Ken Ferens

Department of Electrical and Computer Engineering,

University of Manitoba, Winnipeg, MB, Canada

03:20 - 03:40pm: ACC2936

Variance Fractal Dimension Feature Selection for Detection of

Cyber Security Attacks

Samilat Kaiser\*, Ken Ferens

Department of Electrical and Computer Engineering,

University of Manitoba, Winnipeg, MB, Canada

03:40 - 04:00pm: ACC4078

Simulated Annealing Embedded Within Personal Velocity Update

of Particle Swarm Optimization

Ainslee Heim\*, Ken Ferens

Department of Electrical and Computer Engineering,

University of Manitoba, Winnipeg, MB, Canada

July 27

SESSION ZOOM-7-MON: ONLINE/ZOOM SESSION

INFORMATION & KNOWLEDGE ENGINEERING + DATA SCIENCE +

HEALTH INFORMATICS

Chairs: TBA

July 27, 2020 (Monday); 04:00pm - 06:40pm

(LOCATION: Galleria D-E)

04:00 - 04:20pm: EEE2409

Research on Efficient and Fuzzy Matching Algorithm in Information Dissemination System

Qinwen Zuo, Fred Wu\*, Fei Yan, Shaofei Lu, Colmenares-Diaz Eduardo, Junbin Liang (Heng Wu)

Information System Department, State Key Laboratory of NBC, Protection for Civilian,

Beijng, P. R. China; Department of Mathematics and Computer Science, West Virginia

State University Institute, West Virginia, USA; Department of Information Technology,

Central Research Institute of History and Documents, Beijing, P. R. China; College

of Computer Science & Electronic Engineering, Hunan University, Changsha,

P. R. China; Department of Computer Science, Midwestern State

University, Wichita Falls, Texas, USA; School of Computer and

Electronics Information, Guangxi University, P. R. China

04:20 - 04:40pm: HIM2933

ICT and the Environment: Strategies to Tackle Health and

Environmental Challenges in Nigeria

Tochukwu Ikwunne\*, Lucy Hederman

ADAPT Centre, Trinity College Dublin, Ireland

04:40 - 05:00pm: IKE2490

A Human Resources Competence Actualization Approach for

Expert Networks

Mikhail Petrov

SPIIRAS, Saint Petersburg, Russia

05:00 - 05:20pm: IKE2555

Human-Computer Interaction Interface for Driver Suspicious

Action Analysis in Vehicle Cabin

Igor Lashkov\*, Alexey Kashevnik

SPIIRAS, Saint Petersburg, Russia

05:20 - 05:40pm: IKE2140

Utilizing Economic Activity and Data Science to Predict and

Mediate Global Conflict

Kaylee-Anna Jayaweera, Jens Mache, Caitlin Garcia,

Quinn Vinlove, Alain Kagi, Kris Gado

Lewis and Clarke College, USA

05:40 - 06:00pm: ICD8048

Automated Prediction of Voter's Party Affiliation using AI

Sabiha Mahmud

Mercyhurst University, USA

06:00 – 06:20pm: IKE4118

Data-driven Environmental Management: A Digital Prototype Dashboard

to Analyze and Monitor the Precipitation on Susquehanna River Basin

Siamak Aram\*, Maria H. Rivero, Nikesh Pahuja, Roozbeh Sadeghian,

Joshua L. R. Paulino, Michael Meyer, James Shallenberger

Harrisburg University School of Science and Technology,

Harrisburg, PA, USA; Susquehanna River Basin Commission, Harrisburg,

PA, USA

06:20 – 06:40pm: MSV4084

How do Decorations and Word Appearance Influence the Relative Size

Perception in Viewers of Tag Clouds?

Khaldoon Dhou\*, Robert Kosara, Mirsad Hadzikadic, Mark Faust

Texas A&M University Central Texas, Texas, USA;

July 28

07:00a - 05:00p: REGISTRATION

(LOCATION: Lotus Ballrooms 1; Registration Counter/Desk)

SESSION 4-TUE: ARTIFICIAL INTELLIGENCE AND NOVEL APPLICATIONS

Chair: Ehsan Asali; Department of Computer Science,

University of Georgia, USA

July 28, 2020 (Tuesday); 08:20am - 10:20am

(LOCATION: Galleria B-C)

08:20 - 08:40pm: FREE SLOT

08:40 - 09:00am: ICA2939

A Prototype Implementation of the NNEF Interpreter

Nakhoon Baek

School of Computer Science and Engineering,

Kyungpook National University, Daegu, Republic of Korea

09:00 - 09:20am: ICA4013

Artificially Intelligent Cyber Security: Reducing Risk

and Complexity

John Carbone\*, James Crowder

Colorado Engineering, Colorado Springs, Colorado, USA;

Forcepoint, LLC, USA; Baylor University, Texas, USA

09:20 - 09:40am: ICA4108

Neural-Based Adversarial Encryption of Images in ECB Mode

P. Rivas-Perea, Prabuddha Banerjee\*

School of Computer Science and Mathematics,

Marist College, Poughkeepsie, New York, USA

09:40 - 10:00am: ICA2222

Synthetic AI Nervous/Limbic Derived Instances (SANDI)

Shelli Friess, James A. Crowder\*, Michael Hirsch

School of Counseling, Walden University, Minneapolis,

Minnesota, USA; Colorado Engineering Inc., Colorado, USA;

President and CTO, ISEA TEK LLC, Maitland, Florida, USA

10:00 - 10:20am: ICA2249

The Systems AI Thinking Process (SATP) for Artificial

Intelligent Systems

James A. Crowder\*, Shelli Friess

Colorado Engineering Inc., Colorado Springs, Colorado, USA;

School of Counseling, Walden University, Minneapolis,

Minnesota, USA

10:20 - 10:40am: BREAK

SESSION 5-TUE: INFORMATION ENGINEERING + IMAGING SCIENCE + COMPUTATIONAL BIOLOGY

+ ARTIFICIAL INTELLIGENCE

Chairs: TBA

July 28, 2020 (Tuesday); 10:40am - 12:20pm

(LOCATION: Galleria B-C)

10:40 - 11:00am: ICA2381

Combination of Variational Autoencoders and Generative Adversarial

Network into an Unsupervised Generative Model

Ali Jaber Almalki\*, Pawel Wocjan

Department of Computer Science, University of Central Florida,

Orlando, Florida, USA

July 28

11:00 - 11:20am: IKE2405

Content-Based Image Retrieval Using Deep Learning

Tristan Jordan, Heba Elgazzar\*

School of Engineering and Computer Science, Morehead State

University, Morehead, Kentucky, USA

11:20 - 11:40am: ICA2091

Priority Management in a Cybernetic Organization:

A Simulation Study

Puche J.\*, Costas J., Ponte B., Pino R., De la Fuente D.

Department of Applied Economics, Faculty of Economics and

Business, University of Burgos, Plaza Infanta Dona Elena s/n,

Burgos, Spain

11:40 - 12:00pm: IPC2142

DeepMSRF: A novel Deep Multimodal Speaker Recognition

Framework with Feature Selection

Ehsan Asali, Farzan Shenavarmasouleh\*, Farid Ghareh Mohammadi,

Prasanth Sengadu Suresh, Hamid R. Arabnia

Department of Computer Science, University of Georgia, USA

12:00 - 12:20pm: BIC2972

Structural Exploration of RVFV L Protein Domain in Implicit and

Explicit Solvents by Molecular Dynamics

Gideon K. Gogovi

Department of Computational and Data Sciences,

George Mason University, Fairfax, Virginia, USA

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

01:20 - 03:00pm: Due to challenges with the Coronavirus pandemic, authors and

speakers were given the following options: (a) Not presenting;

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(INTERESTING SUBJECTS: The Impact of CS/IT to Employment;

Societal Impact of AI; AI and Ethical Issues; Online classes

and Impact on Institutions; ...)

03:00 - 03:40pm: BREAK & POSTERS

July 28, 2020 (Tuesday)

(LOCATION: Lotus Ballrooms 1)

July 28

03:40 - 06:00pm: Due to challenges with the Coronavirus pandemic, authors and

speakers were given the following options: (a) Not presenting;

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July 28

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provide a URL/web address to the congress (cs@american-cse.org) - we

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month of August).

SESSION ZOOM-8-TUE: ONLINE/ZOOM SESSION

DATA SCIENCE, MACHINE LEARNING, AND APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 08:20am - 09:40am

(LOCATION: Galleria D-E)

08:20 - 08:40am: ICD8022

Towards a Reference Model for Artificial Intelligence

Supporting Big Data Analysis

Thoralf Reis\*, Marco X. Bornschlegl, Matthias L. Hemmje

University of Hagen, Germany

08:40 - 09:00am: ICD8059

Phoenix: A Scalable Streaming Hypergraph Analysis

Framework

Kuldeep Kurte, Neena Imam, S. M. Shamimul Hasan, and

Ramakrishnan Kannan

Oak Ridge National Laboratory, USA

09:00 - 09:20am: ICD8042

Performance Analysis of Deep Neural Maps

Boren Zheng\*, Lutz Hamel

University of Rhode Island, USA

09:20 - 09:40am: ICD8074

Detecting Asian Values in Asian News via Machine Learning

Text Classification

Li-Jing Chang

Jackson State Univeristy, Jackson, Mississippi, USA

SESSION ZOOM-9-TUE: ONLINE/ZOOM SESSION

EMBEDDED SYSTEMS, CYBER-PHYSICAL SYSTEMS, & APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 09:40am - 10:40am

(LOCATION: Galleria D-E)

09:40 - 10:00am: ESC2905

Real-Time Operating Systems: Course Development

Michael Rivnak, Leonidas Deligiannidis

Department of Computer Science and Networking,

Wentworth Institute of Technology, Boston, Massachusetts, USA

July 28

10:00 - 10:20am: ESC4027

Software Defined Global Navigation Satellite Systems and

Resilient Navigation for Embedded Automation

Jeffrey Wallace\*, Angelica Valdivia

Rocket Technology Systems LLC, Washington, DC, USA

10:20 - 10:40am: ESC4095

Uncertainty Theory based Software Hardware Partitioning for

Reliable Cyber-Physical System Design

Amrita Chatterjee\*, Hassan Reza

School of Electrical Engineering and Computer Science,

University of North Dakota, North Dakota, USA

SESSION ZOOM-10-TUE: ONLINE/ZOOM SESSION

CLOUD COMPUTING SYSTEMS, SECURITY, AND APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 10:40am - 11:40am

(LOCATION: Galleria D-E)

10:40 - 11:00am: GCC4033

Securing Mobile Cloud Computing Using Encrypted Biometric

Authentication

Iehab Alrassan

College of Computer and Information Sciences,

King Saud University, Riyadh, Saudi Arabia

11:00 - 11:20am: GCC3000

The Abaco Platform: A Performance and Scalability Study on

the Jetstream Cloud

Christian R. Garcia\*, Joe Stubbs, Julia Looney, Anagha Jamthe,

Mike Packard, Kreshel Nguyen

Texas Advanced Computing Center, University of Texas at Austin,

Texas, USA; Department of Aerospace Engineering, The

University of Texas at Austin, Texas, USA

11:20 - 11:40am: SAM9715

Enhancing Data Security in the User Layer of Mobile Cloud

Computing Environment: A Novel Approach

Noah Oghenfego Ogwara\*, Krassie Petrova, Mee Loong Yang, and

Stephen MacDonell

Computer and Mathematical Sciences, Auckland University of

Technology, Auckland, New Zealand

SESSION ZOOM-11-TUE: ONLINE/ZOOM SESSION

ARTIFICIAL INTELLIGENCE + MACHINE LEARNING + IMAGING SCIENCE

AND APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 11:40am - 01:00pm

(LOCATION: Galleria D-E)

11:40a - 12:00p: ICA2401

Long Short Term Memory in Chemistry Dynamics Simulation

Heng Wu\*, Shaofei Lu, Colmenares-Diaz Eduardo, Junbin Liang,

Jingke She, Xiaolin Tan

Department of Mathematics and Computer Science, West Virginia

State University Institute, West Virginia, USA; College of

Computer Science and Electronic Engineering, Hunan University,

Changsha, P. R. China; Department of Computer Science,

Midwestern State University, USA; School of Computer and

Electronics Information, Guangxi University, P. R. China

July 28

12:00 - 12:20pm: ICA2054

A Design on Multilayer Perceptron (MLP) Neural Network for

Digit Recognition

Isaac Westby, Hakduran Koc, Jiang Lu, Xiaokun Yang\*

University of Houston Clear Lake, Houston, Texas, USA

12:20 - 12:40pm: ICA2092

A Model for the Strategic Management of Innovation and R&D

based on Real Options Valuation: Options to Abandon and Expand

Clinical Trials per Disease

Gascon F.\*, Alonso Bonis S., Puente J., Ponte B., De la Fuente D.

Department of Business Administration, Faculty of Economics and

Business, University of Oviedo, Avda. del Cristo, s/n, Oviedo,

Asturias, Spain

12:40 - 01:00pm: IPC2589

Deep Convolutional Likelihood Particle Filter for Visual Tracking

Reza Jalil Mozhdehi\*, Henry Medeiros

Marquette University, Milwaukee, Wisconsin, USA

SESSION ZOOM-12-TUE: ONLINE/ZOOM SESSION

DISTRIBUTED SYSTEMS, HIGH-PERFORMANCE COMPUTING, INTERNET

COMPUTING AND APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 01:00pm - 02:40pm

(LOCATION: Galleria D-E)

01:00 - 01:20pm: PDP2544

Preliminary Performance and Programmability Comparison of the

Thick Control Flow Architecture and Current Multicore CPUs

Martti Forsell\*, Sara Nikula, Jussi Roivainen

VTT, Oulu, Finland

01:20 - 01:40pm: PDP4111

Tree-Based Fixed Data Transmission for Healthcare Sensor Networks

Susumu Shibusawa\*, Toshiya Watanabe

Ibaraki University, Hitachi, Ibaraki, Japan;

National Institute of Technology, Gunma College, Gunma, Japan

01:40 - 02:00pm: ICM3027

Per-user Access Control Framework for Link Connectivity and

Network Bandwidth

Shogo Kamata\*, Chunghan Lee, Susumu Date

Graduate School of Information Science and Technology, Osaka

University, Japan; Toyota Motor Corporation, Japan;

Cybermedia Center, Osaka University, Japan

02:00 - 02:20pm: ICM2978

Dynamic IoT Clustering Method for Massive IoT Systems

Yunseok Chang

Department of Computer Engineering, Daejin University,

Pocheon, Republic of Korea

02:20 - 02:40pm: ICM2410

ISLSTM: An Intelligent Scheduling Algorithm for Internet of Things

Heng Wu\*, Shaofei Lu, Qinwen Zuo, Jon Musselwhite,

Raj Vijeshbhai Patel, Sweya Reddy Dava

Department of Mathematics and Computer and Science, West Viginia

State University Insititute, West Viginia, USA; College of

Electrical and Information Engineering, Hunan University, Changsha,

P. R. China; State Key Laboratory of NBC, Protection for Civilian,

Beijing Institute of Chemical Defense, Beijing, P. R. China

July 28

SESSION ZOOM-14-TUE: ONLINE/ZOOM SESSION

SOFTWARE ENGINEERING

Chairs: TBA

July 28, 2020 (Tuesday); 02:40pm - 03:40pm

(LOCATION: Galleria D-E)

02:40 - 03:00pm: SER2953

Change Request Prediction in an Evolving Legacy System:

A Comparison

Lamees Alhazzaa\*, Anneliese Amschler Andrews

Computer Science Department, Al-Imam Muhammad Bin Saud Islamic

University, Riyadh, Saudi Arabia; Department of Computer

Science, University of Denver, Denver, Colorado, USA

03:00 - 03:20pm: SER2386

Technical Personality as Related to Intrinsic Personality Traits

Marwan Shaban\*, Craig Tidwell, Janell Robinson, Adam J. Rocke

Seminole State College, Sanford, Florida, USA

03:20 - 03:40pm: SER2564

Analysis of Bug Types of Textbook Code with Open Source Software

Young Lee\*, Jeong Yang

Department of Computing and Cyber Security,

Texas A&M University - San Antonio, Texas, USA

SESSION ZOOM-15-TUE: ONLINE/ZOOM SESSION

INFORMATION & KNOWLEDGE ENGINEERING + IMAGING SCIENCE AND

APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 03:40pm - 04:40pm

(LOCATION: Galleria D-E)

03:40 - 04:00pm: IKE2966

GeoDataLinks: A Suggestion for a Replacement for the ESRI Shapefile

Vitit Kantabutra

Department of Electrical Engineering, Idaho State University,

Pocatello, Idaho, USA

04:00 - 04:20pm: IKE4066

Clearview, an Improved Temporal GIS Viewer and Its Use in

Discovering Spatiotemporal Patterns

Vitit Kantabutra

Department of Electrical Engineering, Idaho State University,

Pocatello, Idaho, USA

04:20 - 04:40pm: IPC2497

Evolution of Convolutional Neural Networks for Lymphoma

Classification

Christopher David Walsh\*, Nicholas Kenelm Taylor

Department of Computer Science, Heriot-Watt University,

Edinburgh, Scotland

July 28

SESSION ZOOM-16-TUE: ONLINE/ZOOM SESSION

CYBER SECURITY + SIMULATION, MODELING, AND VISUALIZATION +

SOFTWARE SYSTEMS AND APPLICATIONS

Chairs: TBA

July 28, 2020 (Tuesday); 04:40pm – 07:00pm

(LOCATION: Galleria D-E)

04:40 - 05:00pm: MSV2367

A Virtual Serious Game for Nursing Education

Youxin Luo\*, Abel A. Reyes, Parashar Dhakal, Manisa Baker,

Julia Rogers, Xiaoli Yang

Electrical and Computer Engineering Department, Purdue

University Northwest, Hammond, Indiana, USA; Electrical &

Computer Science Engineering, The University of Toledo,

Toledo, Ohio, USA; College of Nursing, Purdue University

Northwest, Hammond, Indiana, USA

05:00 - 05:20pm: MSV2373

An Interactive Software to Learn Pathophysiology with 3D

Virtual Models

Abel A. Reyes\*, Youxin Luo, Parashar Dhakal, Julia Rogers,

Manisa Baker, Xiaoli Yang

Electrical and Computer Engineering Department, Purdue

University Northwest, Hammond, Indiana, USA;

Electrical and Computer Engineering Department, University

of Toledo, Toledo, Ohio, USA; College of Nursing, Purdue

University Northwest, Hammond, Indiana, USA

05:20 - 05:40pm: SAM9718

A Hybrid Recommender System for Cybersecurity Based on a

Rating Approach

Carlos Ayala, Edison Loza-Aguirre\*, Kevin Jimenez, and

Roberto O. Andrade

Escuela Politecnica Nacional, Quito, Ecuador

05:40 - 06:00pm: SAM9735

The Impact of 21st Century Skills and Computing Cognition

Cyber Skills on Graduates' Work Readiness in Cyber Security

Anna Griffin, Nicola Johnson, Craig Valli

Cyber Security CRC, Australia; Security Research Institute,

Edith Cowan University, Australia

06:00 – 06:20pm: SAM9731

CyberCheck.me: A Review of a Small to Medium Enterprise Cyber

Security Awareness Program

Craig Valli, Ian Martinus, Jayne Stanley, Michelle Kirby

Security Research Institute, Edith Cowan University, Australia;

WA AustCyber Innovation Hub, Australia

06:20 – 06:40pm: SAM4006

Analysis of Conpot and its BACnet Features for Cyber-Deception

Warren Z. Cabral\*, Craig Valli, Leslie F. Sikos, Samuel G. Wakeling

Cyber Security Co-Operative Research Centre, Australia;

Security Research Institute, Edith Cowan University, WA, Australia

06:40 – 07:00pm: ICA2360

A Similarity-Based Decision Process for Implementation Decisions

Maryna Averkyna

Estonian Business School, Tallinn, Estonia; The National University

of Ostroh Academy, Seminarska, Ostroh, Ukraine

July 28

Due to challenges with the Coronavirus pandemic, authors and speakers

were given the following options: (a) Not presenting; (b) Providing

pre-recorded presentations; and (c) Presenting online via Zoom.

Unfortunately, some authors/speakers did not select any options;

if any of these authors/speakers show-up at the congress, their

talks/presentations will be scheduled on-site at the congress

(correct as of July 16, 2020):

o. BIC2977

MinCNE: Identifying Conserved Non-Coding Elements using

Min-Wise Hashing

Sairam Behera\*, Jitender S. Deogun, Etsuko N. Moriyama

Department of Computer Science and Engineering, University of

Nebraska-Lincoln, Lincoln, Nebraska, USA; School of Biological

Sciences, Center for Plant Science Innovation, University of

Nebraska-Lincoln, Lincoln, Nebraska, USA

o. BIE2583

Electrocardiogram Classification using Long Short-Term Memory

Networks

Shijun Tang

Department of Science and Mathematics, Alvernia University,

Reading, PA, USA

o. CSC2932

Elemental Analysis of Oil Paints

Shijun Tang\*, Rosemarie C. Chinni, Amber Malloy, Megan Olsson

Alvernia University, Reading, PA, USA

o. EEE2413

Tourism Service Auction Market for Saudi Arabia

Saad Nasser Almutwa, Sungchul Hong

Computer and Information Sciences Department, Towson University,

Towson, Maryland, USA

o. FEC2462

Examining the Influence of Participating in a Cyber Defense Track

on Students' Cybersecurity Knowledge, Awareness, and Career Choices

Michelle Peters\*, T. Andrew Yang, Wei Wei, Kewei Sha, Sadegh Davari

University of Houston - Clear Lake, Houston, Texas, USA

o. GCC2141

Enterprise Backend as a Service (EBaaS)

Gokay Saldamli\*, Aditya Doshatti, Darshil Kapadia, Devashish Nyati,

Maulin Bodiwala, Levent Ertaul

Computer Engineering Department, San Jose State University,

San Jose, California, USA; Department of Computer Science,

California State University East Bay, Hayward, California, USA

o. ICA2125

Cognitive Mathematics in Research and Education

Konstantin Kozerenko, Elena B. Kozerenko\*

Lyceum "The Second School", Moscow, Russia; Institute of Informatics

Problems of the Federal Research Center, Computer Science and Control

of the Russian Academy of Sciences, Moscow, Russia

July 28

o. ICA2126

Discourse Profiling based on Analytical Textology

Elena B. Kozerenko\*, Mikhael Yu. Mikheev, Lev I. Erlikh,

Konstantin I. Kuznetsov, Nikolai V. Somin

Institute of Informatics Problems of the Federal Research Center,

Computer Science and Control of the Russian Academy of Sciences;

Moscow State University, Research Computer Center, Moscow, Russia

o. ICA2127

The Contrastive Study of Spatial Constructions on NPloc in the Russian

Language and NP in the Chinese Language in the Cognitive Aspect

Irene M. Kobozeva\*, Lie Dan

Moscow State University, Moscow, Russia; Jilin Huaqiao Foreign

Languages Institute, Changchun, P. R. China

o. ICA2128

Methods and Algorithms for Generating Sustainable Cognitive Systems

Based on Thematic Category Hierarchies for the Development of

Heterogeneous Information Resources in Technological and Social Spheres

Michael M. Charnine, Elena B. Kozerenko\*

Institute of Informatics Problems of the Federal Research Center,

Computer Science and Control of the Russian Academy of Sciences,

Moscow, Russia

o. ICA2129

Mental Model of Educational Environments

Natalia R. Sabanina\*, Valery S. Meskov

Moscow Pedagogical State University (MPSU), Moscow, Russia

o. ICD8030

A Comparison of Important Features for Predicting Polish and Chinese

Corporate Bankruptcies

Yifan Ren, Gary Weiss\*

Fordham University, USA

o. ICD8027

Improving Physician Decision-Making and Patient Outcomes Using Analytics:

A Case Study with The World's Leading Knee Replacement Surgeon

Anish Pahwa\*, Shikhar Jamuar, Varun Kumar Singh, Matthew Lanham

Purdue University, USA

o. ICD8040

The Effectiveness of Pre-Trained Code Embeddings

Ben Trevett\*, Donald Reay, Nick Taylor

Heriot-Watt University, Edinburgh, Scotland, United Kingdom

o. ICD8046

Nested Named Sets in Database Retrieval

H. Paul Zellweger

ArborWay Labs, USA

o. ICD8023

A Holistic Approach for Determining Effective Promotional Product

Groupings

Rahul Raj\*, Matthew Lanham, Vinitha Ravindran, Siddharth Harisankar,

Mehul Zawar, Xuanming Hu

Purdue University, USA

July 28

o. ICD8044

Enhancing User Experience by Integrating Real-Time Search Data with

Historical Data to Personalize Recommendations for a Timeshare

Exchange Company

Hemanya Tyagi\*, Matthew Lanham, Robin Jindal, Mohinder Pal Goyal,

Dibyamshu Shrestha

Purdue University, USA

o. ICW3015

Extended RTS/CTS Control based on Transmission Request Distribution

in Wireless Ad-Hoc Networks

Momoka Hara, Hiroaki Higaki\*

Department of Robotics and Mechatronics, Tokyo Denki University,

Tokyo, Japan

o. ICW3016

Interference of Overhearing by Eavesdropper Nodes for Secure

Wireless Ad-Hoc Networks

Hinano Amano, Hiroaki Higaki\*

Department of Robotics and Mechatronics, Tokyo Denki University,

Tokyo, Japan

o. IPC2540

Superpixel-based Stereoscopic Video Saliency Detection Using Support

Vector Regression Learning

Ting-Yu Chou, Jin-Jang Leou\*

Department of Computer Science and Information Engineering,

National Chung Cheng University, Chiayi, Taiwan

o. IPC2542

Superpixel-based Multi-focus Image Fusion

Kuan-Ni Lai, Jin-Jang Leou\*

Department of Computer Science and Information Engineering,

National Chung Cheng University, Chiayi, Taiwan

o. MSV2400

Dealing Bridge Hands: A Study in Random Data Generation

Peter M. Maurer

Department of Computer Science, Baylor University, Waco, Texas, USA

o. MSV4084

How do Decorations and Word Appearance Influence the Relative Size

Perception in Viewers of Tag Clouds?

Khaldoon Dhou\*, Robert Kosara, Mirsad Hadzikadic, Mark Faust

Texas A&M University Central Texas, Texas, USA;

Tableau Software, USA;

University of North Carolina Charlotte, North Carolina, USA

o. MSV4127

Modeling Digital Business Strategy During Crisis

Sakir Yucel

NetApp, Wexford, Pittsburgh, USA

o. MSV4067

Modelling and Simulation of MEMS Gyroscope with Coventor MEMS+ and

Matlab/SIMULINK Software

Jacek Nazdrowicz\*, Adam Stawinski, Andrzej Napieralski

Department of Microelectronics and Computer Science, Lodz University

of Technology, Poland

July 28

o. PDP2586

Reverse Engineering Process for NoSQL Databases

Fatma Abdelhedi, Amal Ait Brahim, Rabah Tighilt Ferhat\*,

Gilles Zurfluh

CBI2 - TRIMANE, Paris, France; Toulouse Institute of Computer

Science Research (IRIT), Toulouse Capitole University,

Toulouse, France

o. PDP2600

Two-Phase Commitment Problem in Distributed Systems with

Fail-Stop Model

Sung-Hoon Park\*, Yong-cheol Seo, Su-Chang Yoo

Department of Computer Engineering, Chungbuk National University,

Chungbuk, Republic of Korea

o. SAM9705

Phishing Detection using Deep Learning

Beatrice M. Cerda, Shengli Yuan\*, Lei Chen

University of Houston - Downtown, Houston, Texas, USA;

Georgia Southern University Statesboro, Georgia, USA

o. SAM9714

The Organizational Cybersecurity Success Factors: An Exhaustive

Literature Review

Nancy Poehlmann, Kevin Matthe Caramancion\*, Mehdi Barati,

Irem Tatar, Terry Merz

Department of Information Science, University at Albany,

State University of New York, Albany, New York, USA

o. SAM9719

Vulnerability of Virtual Private Networks to Web Fingerprinting

Attack

Khaleque Kamal, Sultan Almuhammadi\*

King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

o. SAM4093

Lightweight Network Steganography for Distributed Electronic Warfare

System Communications

Tim Lei, Jeremy Straub\*, Benjamin Bernard

Department of Computer Science, San Francisco State University,

San Francisco, California, USA; Institute for Cyber Security

Education and Research, North Dakota State University, Fargo,

North Dakota, USA; Department of Computer Science, North Dakota

State University, Fargo, North Dakota, USA

o. SER4031

Modeling Unmanned Aircraft System Maintenance Using Agile Model-Based

Systems Engineering

Justin R. Miller, Ryan D. L. Engle\*, Brent T. Langhals,

Michael R. Grimaila, Douglas D. Hodson

Air Force Institute of Technology, USA

July 28

Due to challenges with the Coronavirus pandemic, authors and speakers

were given the following options: (a) Not presenting; (b) Providing

pre-recorded presentations; and (c) Presenting online via ZOOM.

The list of papers whose authors have provided pre-recorded presentations

(or plan to do so) appears below: (The web/URLs to presentations appear

on the CSCE 2020 web site)

o. Cognitive Discovery Pipeline Applied to Informal Knowledge

Nicola Severini\*, Pietro Leo, Paolo Bellavista

Alma Mater Studiorum, Bologna, Italy;

IBM Active Intelligence Center, IBM Italy, Bologna, Italy

o. Feature Set Optimization by Clustering, Univariate Association, Deep

and Machine Learning Omics Wide Association Study (DMWAS) for

Biomarkers Discovery as Tested on GTEx Pilot Dataset for Death due

to Heart-Attack

Abhishek Narain Singh

ABioTek www.tinyurl.com/abinarain, Kuopio, Finland

o. A Novel Method for the Inverse Qsar/Qspr to Monocyclic Chemical

Compounds based on Artificial Neural Networks and Integer Programming

Ren Ito, Naveed Ahmed Azam\*, Chenxi Wang, Aleksandar Shurbevski,

Hiroshi Nagamochi, Tatsuya Akutsu

Department of Applied Mathematics & Physics, Kyoto University, Japan;

Bioinformatics Center, Institute for Chemical Research,

Kyoto University, Uji, Japan

o. Mathematical Modeling and Computer Simulations of Cancer Chemotherapy

Frank Nani, Mingxian Jin\*

Department of Mathematics and Computer Science, Fayetteville State

University, Fayetteville, North Carolina, USA

o. A New Literature Based Discovery (LBD) Application Using the Pubmed

Database

Matthew Schofield\*, Gabriela Hristescu, Aurelian Radu

Computer Science Department, Rowan University, Glassboro, New Jersey;

Department of Cell, Developmental and Regenerative Biology,

Icahn School of Medicine at Mount Sinai, New York, USA

o. Common Motifs in KEGG Cancer Pathways

Bini Elsa Paul, Olaa Kasem, Haitao Zhao, Zhong-Hui Duan\*

Department of Computer Science, University of Akron, Ohio, USA

o. Phenome to Genome - Application of GWAS to Asthmatic Lung Biomarker

Gene Variants

Adam Cankaya\*, Ravi Shankar

College of Computer Engineering and Science, Florida Atlantic

University, Florida, USA

o. POST-DS: A Methodology to Boost Data Science

Carlos J. Costa

Universidade de Lisboa, Portugal

o. Graph Network Community Based Regulatory Medicine and 'More' Using

GraphBreak

Abhishek Narain Singh

ABioTek www.tinyurl.com/abinarain, Kuopio, Finland

July 28

o. Shallow SqueezeNext Architecture Implementation on Bluebox2.0

Jayan Kant Duggal\*, Mohamed El-Sharkawy

Department of Electrical and Computer Engineering, IoT Collaboratory,

Purdue School of Engineering and Technology, IUPUI, Indiana, USA

o. Julia and Singularity for High Performance Computing

Joesph Tippit, Douglas Hodson, Michael Grimaila

Computer Science and Engineering Department, US Air Force Institute

of Technology (AFIT), USA; Head, Systems Engineering & Management

Department, US Air Force Institute of Technology (AFIT), USA

o. Trojan Banker Simulation Utilizing Python

Drew Campbell, Jake Hall, Iyanu Odebode, Douglas Hodson, and

Michael Grimaila

Computer Science and Engineering Department, US Air Force Institute

of Technology (AFIT), USA; Head, Systems Engineering & Management

Department, US Air Force Institute of Technology (AFIT), USA

o. CovidLock a New Form of Ransomware

Amber Modlin, Andres Gregory, Iyanu Odebode, Douglas Hodson, and

Michael Grimaila

Computer Science and Engineering Department, US Air Force Institute

of Technology (AFIT), USA; Head, Systems Engineering & Management

Department, US Air Force Institute of Technology (AFIT), USA

o. MSECT: Genome Wide Massive Sequence Exhaustive Comparison Tool

Abhishek Narain Singh

ABioTek www.tinyurl.com/abinarain, Kuopio, Finland

o. The New Office Threat: A Simulation Environment of Watering Hole

Cyber Attacks

Braeden Bowen, Jeremy Erqybar, Iyanu Odebode, Douglas Hodson, and

Michael Grimaila

Computer Science and Engineering Department, US Air Force Institute

of Technology (AFIT), USA; Head, Systems Engineering & Management

Department, US Air Force Institute of Technology (AFIT), USA

o. Simulation of SYN Flood Attacks and Counter-Attack Methods Using

Average Connection Times

Hai Vo, Raymond Kozlowski, Iyanu Odebode, Douglas Hodson, and

Michael Grimaila

Computer Science and Engineering Department, US Air Force Institute

of Technology (AFIT), USA; Head, Systems Engineering & Management

Department, US Air Force Institute of Technology (AFIT), USA

o. A Note on the Sensitivity of Generic Approximate Sparse Pseudoinverse

Matrix for Solving Linear Least Squares Problems

A. D. Lipitakis\*, G. A. Gravvanis, C. K. Filelis-Papadopoulos, and

D. Anagnostopoulos

Department of Informatics and Telematics, Harokopio University of

Athens, Greece; Department of Electrical and Computer Engineering,

School of Engineering, Democritus University of Thrace, University

Campus, Kimmeria, Xanthi, Greece; University College Cork,

University College Cork, Cork, Ireland

o. Large-scale Parallelization of Lattice QCD on Sunway Taihulight

Supercomputer

Ailin Xu\*, Zhongzhi Luan, Ming Gong, Xiangyu Jiang

School of Computer Science and Engineering, Beihang University,

Beijing, P. R. China; Institute of High Energy Physics, Chinese

Academy of Sciences, Beijing, P. R. China

July 28

o. Are Collaboration Tools Safe? An Assessment of Their Use and Risks

Cquoya Haughton, Maria Isabel Herrmann, Tammi Summers, Sonya Worrell,

Samuel Olatunbosun\*, Taiwo Ajani

Department of Computer Science, Norfolk State University,

Virginia, USA; Department of Computer and Information Systems,

Ferrum College, Virginia, USA

o. Scaleable Undergraduate Cyber-Security Curriculum Through

Auto-Graded E-Learning Labs

Aspen Olmsted

Department of Computer Science, Fisher College, Boston, MA, USA

o. Smart Automation of an Integrated Water System

Fatema Tuz Zohra, Bahram Asiabanpour\*

Ingram School of Engineering, Texas State University,

San Marcos, Texas, USA

o. Data Collection and Generation for Radio Frequency Signal Security

Tarek A. Youssef, Guillermo A. Francia, III \*, Hakki Erhan Sevil

Department of Electrical and Computer Engineering, University of

West Florida, Florida, USA; Center for Cybersecurity, University

of West Florida, Florida, USA; Department of Intelligent Systems

and Robotics, University of West Florida, Florida, USA

o. BumpChat: A Secure Mobile Communication System

Brian Kammourieh, Nahid Ebrahimi Majd\*, Ahmad Hadaegh

Department of Computer Science and Information Systems,

California State University San Marcos, California, USA

o. How to Extend the Single-Processor Paradigm to the Explicitly

Many-Processor Approach

Janos Vegh

Kalimanos BT, Debrecen, Hungary

o. Random Self-Modifiable Computation

Michael Stephen Fiske

Aemea Institute, San Francisco, California, USA

o. Introducing Temporal Behavior to Computing Science

Janos Vegh

Kalimanos BT, Debrecen, Hungary

o. An Educational Guide to Creating Your Own Cryptocurrency

Paul Medeiros, Leonidas Deligiannidis\*

Department of Computer Science and Networking, Wentworth

Institute of Technology, Boston, Massachusetts, USA

o. Using Dear Data Project to Introduce Data Literacy, and Information

Literacy to Undergraduates

Vetria L. Byrd

Purdue University, West Lafayette, Indiana, USA

o. A Project-Based Approach to Teaching IoT

Varick L. Erickson\*, Pragya Varshney, Levent Ertaul

Department of Computer Science, California State University,

East Bay, California, USA

o. Developing a Scalable Platform and Analytics Dashboard for Manual

Physical Therapy Practices Using Pressure Sensing Fabric

Tyler V. Rimaldi, Daniel R. Grossmann, Donald R. Schwartz\*

School of Computer Science and Mathematics, Marist College,

Poughkeepsie, New York, USA

July 28

o. Peer Assistant Role Models in a Graduate Computer Science Course

Evava Pietri, Leslie Ashburn-Nardo, Snehasis Mukhopadhyay\*

Department of Psychology, Indiana University Purdue University

Indianapolis (IUPUI), Indiana, USA; Department of Computer and

Information Science, Indiana University Purdue University

Indianapolis (IUPUI), Indiana, USA

o. Team-Based Online Multidisciplinary Education on Big Data +

High-Performance Computing + Atmospheric Sciences

Jianwu Wang, Matthias K. Gobbert\*, Zhibo Zhang, Aryya Gangopadhyay

Department of Information Systems, University of Maryland,

Baltimore County, Maryland, USA; Department of Mathematics and

Statistics, University of Maryland, Baltimore County, Maryland,

USA; Department of Physics, University of Maryland,

Baltimore County, Maryland, USA

o. An Educational Tool for Exploring the Pumping Lemma Property of

Regular Languages

Josue N. Rivera\*, Haiping Xu

Computer and Information Science Department, University of

Massachusetts Dartmouth, Dartmouth, Massachusetts, USA

o. Secure Business Intelligence Markup Language (secBIML)

Aspen Olmsted

Department of Computer Science, Fisher College, Boston, MA, USA

o. 'SasCsvToolkit' - A Versatile Parallel 'Bag-Of-Tasks' Job Submission

Application on Heterogeneous and Homogeneous Platforms for Big Data

Analytics such as for Biomedical Informatics

Abhishek Narain Singh

ABioTek www.tinyurl.com/abinarain, Kuopio, Finland

o. ActiviX: Non-Invasive Solution to Mental Health

Morgan Whittemore, Shawn Toubeau, Zach Griffin, Leon Deligiannidis\*

Department of Computer Science and Networking, Wentworth Institute

of Technology, Boston, Massachusetts, USA

o. Using Artificial Intelligence for Medical Condition Prediction and

Decision-Making For COVID-19 Patients

Mohammad Pourhomayoun, Mahdi Shakibi\*

Department of Computer Science, California State University,

Los Angeles, California, USA

o. Semantic Tree Driven Thyroid Ultrasound Report Generation by

Voice Input

Lihao Liu\*, Mei Wang, Weiliang Zhao, Jian Yang, Xueyang Li

School of Computer Science and Technology, Donghua University,

Shanghai, P. R. China;

Computing Department, Macquarie University, NSW, Australia

o. The Unmasking of 'Mitochondrial Adam' and Structural Variants Larger

than Point Mutations as Stronger Candidates for Traits, Disease

Phenotype and Sex Determination

Abhishek Narain Singh

ABioTek www.tinyurl.com/abinarain, Kuopio, Finland

o. Implementation of a Medical Data Warehouse Framework to

Support Decisions

Nedra Amara\*, Olfa Lamouchi, Said Gattoufi

Institute of Management, University of Tunis, Bardo, Tunisia;

LR-RISC-ENIT (LR-16-ES07), Tunisia

July 28

o. Post-Operative Hip Fracture Rehabilitation Model

Akash Gupta\*, Adnan Al-Anbuky, Peter McNair

School of Engineering, Computer and Mathematical Sciences,

Auckland University of Technology, Auckland, New Zealand;

School of Clinical Sciences, Auckland University of Technology,

Auckland, New Zealand

o. Exergames for Systemic Sclerosis Rehabilitation: a Pilot Study

Federica Ferraro, Marco Trombini\*, Matteo Morando, Marica Doveri,

Gerolamo Bianchi, Silvana Dellepiane

Department of Electrical, Electronic, Telecommunications

Engineering and Naval Architecture (DITEN), Universita degli Studi

di Genova, Genoa, Italy; Azienda Sanitaria Locale 3, Division of

Rheumatology, Department of Locomotor System, Genoa, Italy

o. Classification of Craniosynostosis Images by Vigilant Feature

Extraction

Saloni Agarwal\*, Rami R. Hallac, Ovidiu Daescu, Alex Kane

University of Texas at Dallas, Richardson, Texas, USA;

UT Southwestern Medical Center, Dallas, Texas, USA

o. Using Persuasive AI Voice Assisted Technologies to Motivate and

Encourage Physical Activity

Benjamin Schooley, Dilek Akgun\*, Prashant Duhoon, Neset Hikmet

Health Information Technology, University of South Carolina,

Columbia, South Carolina, USA; Innovation Think Tank Lab,

University of South Carolina, Columbia, South Carolina, USA;

Department of Information Technology, University of South Carolina,

Columbia, South Carolina, USA; Engineering & Computing, University

of South Carolina, Columbia, South Carolina, USA

o. A Machine Learning Driven Approach to Predict the Outcome of

Prostate Biopsy: Identifying Cancer, Clinically Significant Disease,

and Unfavorable Pathological Features on Prostate Biopsy

John L. Pfail\*, Dara J. Lundon, Parita Ratnani, Vinayak Wagaskar,

Peter Wiklund, Ashutosh K. Tewari

Icahn School of Medicine at Mount Sinai, New York, USA

o. Using Natural Language Processing to Optimize Engagement of Those

with Behavioral Health Conditions That Worsen Chronic

Medical Disease

Peter Bearse, Atif Farid Mohammad, Intisar Rizwan I Haque\*,

Susan Kuypers, Rachel Fournier

Catasys Inc., Santa Monica, California, USA

o. Effects of Domain Randomization on Simulation-to-Reality Transfer

of Reinforcement Learning Policies for Industrial Robots

Christian Scheiderer\*, Nik Dorndorf, Tobias Meisen

Institute of Technologies and Management of the Digital Transformation,

University of Wuppertal, Germany; RWTH Aachen University, Germany

o. Growing Artificial Neural Networks

John Mixter\*, Ali Akoglu

ECE, The University of Arizona, Tucson, Arizona, USA

o. Hybrid Car Trajectory by Genetic Algorithms with Non-Uniform Key Framing

Dana Vrajitoru

Department of Computer and Information Sciences, Indiana University

South Bend, Indiana, USA

July 28

o. Food Type Recognition and Estimation of Calories Using Neural Network

R. Dinesh Kumar, E. Golden Julie, Y. Harold Robinson, Sanghyun Seo\*

School of Computer Art, College of Art and Technology,

Chung-Ang University, Anseong-si, Kyunggi-do, Republic of Korea

o. A Hybrid Deep Learning Approach for Detecting and Classifying Breast

Cancer using Mammogram Images

K. Lakshminarayanan, Y. Harold Robinson, S. Vimal, Dongwann Kang\*

Department of Computer Science and Engineering, Seoul National

University of Science and Technology, Seoul, Republic of Korea

o. A Deep Learning Approach to Diagnose Skin Cancer Using Image Processing

Roli Srivasta, Musarath Jahan Rahmathullah, Siamak Aram,

Nathaniel Ashby, Roozbeh Sadeghian\*

Harrisburg University of Science and Technology, Harrisburg, PA, USA

o. White Blood Cell Classification Using Genetic Algorithm - Enhanced

Deep Convolutional Neural Networks

Omer Sevinc\*, Serdar Guzel, Iman Askerbeli, Mehrube Mehrubeoglu

Ondokuz Mayis University, Samsun, Turkey; Ankara University, Ankara,

Turkey; Texas A&M University-Corpus Christi, Texas, USA

o. Deep Learning Based Constituency Parsing for Arabic Language

Amr Morad\*, Magdy Nagi, Sameh Alansary

Information and Communication Technologies (ICT), Bibliotheca

Alexandrina, Alexandria, Egypt; Faculty of Engineering, Computer

and Systems Department, Alexandria University, Bibliotheca

Alexandrina, Alexandria, Egypt; Arabic Computational Linguistic

Center, Faculty of Arts, Phonetics and Linguistics Department,

Alexandria University, Bibliotheca Alexandrina, Alexandria, Egypt

o. Activity Recognition for Elderly using Machine Learning Algorithms

Heba Elgazzar

School of Engineering and Computer Science, Morehead State

University, Morehead, Kentucky, USA

o. Would You Turn on Bluetooth for LBA?

Heng-Li Yang\*, Shiang-Lin Lin, Jui-Yen Chang

Department of Management Information System, National Cheng-Chi

University, Taipei, Taiwan

o. Prediction of Clinical Disease with AI based Multiclass

Classification using Naive-Bayes and Random Forest Classifier

V. Jackins, S. Vimal, M. Kaliappan, Mi Young Lee\*

Department of Software, Sejong University, Seoul, Republic of Korea

o. Trend Analysis using Agglomerative Hierarchical Clustering Approach

for Time Series Big Data

P. Subbulakshmi, S. Vimal, M. Kaliappan, Y. Harold Robinson, and

Mucheol Kim\*

School of Computer Science and Engineering, Chung-Ang University,

Dongjak-gu, Seoul, Republic of Korea

o. Progression Detection of Glaucoma using K-Means and GLCM Algorithm

S. Vimal, Y. Harold Robinson, M. Kaliappan, K. Vijayalakshmi, and

Sanghyun Seo\*

School of Computer Art, College of Art and Technology,

Chung-Ang University, Anseong-si, Kyunggi-do, Republic of Korea

July 28

o. Inside Blockchain and Bitcoin

Fernandez-Vazquez S., Rosillo R.\*, Priore P., Fernandez I.,

Gomez A., Parreno J.

Escuela Politecnica de Ingenieria de Gijon, Campus de Viesques s/n,

Gijon (Asturias), Spain

o. A Classifier of Popular Music Online Reviews: Joy Emotion Analysis

Qing-Feng Lin, Heng-Li Yang\*

National Cheng-Chi University, Taipei, Taiwan

o. Smart Marketing on Audio-visual content platforms - Intellectual

Property Implications

Elisa Gutierrez, Cristina Puente\*, Cristina Velasco, Jose A. Olivas

Advanced Technical Faculty of Engineering - ICAI, Pontificia

Comillas University, Madrid, Spain

o. Which Scaling Rule Applies to Artificial Neural Networks

Janos Vegh

Kalimanos BT, Debrecen, Hungary

o. Training-Data Generation and Incremental Testing for Daily Peak

Load Forecasting

Jihoon Moon, Sungwoo Park, Seungmin Jung, Eenjun Hwang\*, Seungmin Rho

School of Electrical Engineering, Korea University, Seoul, Republic

of Korea; Department of Software, Sejong University, Seoul,

Republic of Korea

o. Improving Facial Landmark Extraction Performance using

Attention Mechanism

Hyungjoon Kim, Hyeonwoo Kim, Seongkuk Cho, Eenjun Hwang\*

School of Electrical Engineering, Korea University, Seongbuk-gu,

Seoul, Republic of Korea

o. A Person Re-identification Scheme Using Multiple Input Images and

Cross-Input Neighborhood Differences

Hyeonwoo Kim, Hyungjoon Kim, Bumyeon Ko, Eenjun Hwang\*

School of Electrical Engineering, Korea University, Seongbuk-gu,

Seoul, Republic of Korea

o. Autoencoder Based Anomaly Detection for Load Forecasting

Sungwoo Park, Seungmin Jung, Eenjun Hwang\*, Seungmin Rho

School of Electrical Engineering, Korea University, Seongbuk-gu,

Seoul, Republic of Korea

o. Demand Response: Multi-agent System-based DR Implementation

Faisal Saeed, Anand Paul, Seungmin Rho\*, Muhammad Jamal Ahmed

Department Software, Sejong University, Gwangjin-gu, Seoul,

Republic of Korea

o. T-SNE Based K-NN: A New Approach for MNIST

Muhammad Jamal Ahmed, Faisal Saeed, Anand Paul, Seungmin Rho\*

Department Software, Sejong University, Seoul, Republic of Korea

o. Short to Mid-Term Prediction for Electricity Consumption using

Statistical Model and Neural Networks

Malik Junaid Jami Gul, Malik Urfa gul, Yangsun Lee, Seungmin Rho\*,

and Anand Paul

Department Software, Sejong University, Seoul, Republic of Korea

July 28

o. BI-LSTM-LSTM Based Time Series Electricity Consumption Forecast

for South Korea

Malik Junaid Jami Gul, M. Hafid Firmansyah, Seungmin Rho\*, and

Anand Paul

Department Software, Sejong University, Seoul, Republic of Korea

o. Comprehensive Performance Comparison between Flink and Spark

Streaming for Real-Time Health Score Service in Manufacturing

Seungchul Lee, Daeyoung Kim, Donghwan Kim

Research, BISTel Inc., Republic of Korea

o. Discovery of Urban Mobility Patterns

Ivan Dario Penaranda Arenas\*, Hugo Alatrista-Salas, and

Miguel Nunez-del-Prado Cortez

Pontificia Universidad Catolica del Peru

o. Deep Learning Approach to Extract Geometric Features of Bacterial

Cells in Biofilms

Md Hafizur Rahman\*, Jamison Duckworth, Shankarachary Ragi,

Parvathi Chundi, Govinda Chilkoor, Venkata R. Gadhamshetty

South Dakota School of Mines & Technology, South Dakota, USA

o. Novel Community Detection and Ranking Approaches for Social

Network Analysis

Matin Pirouz\*, Pujitha Reddy

California State University, Fresno, California, USA

o. Optimizing Network Intrusion Detection using Machine Learning

Sara Nayak\*, Anushka Patil, Reethika Renganathan, and

Lakshmisudha Kondaka

SIES Graduate School of Technology, India

o. Air-Disturbance Direction Classification in Autonomous Quadcopters

Jason Hughes

Fordham University, USA

o. Data Analysis for Supporting Cleaning Schedule of Photovoltaic

Power Plants

Chung-Chian Hsu

National Yunlin University of Science and Technology, Taiwan

o. Revealing the Relation between Students' Reading Notes and

Examination Scores with NLP Features

Zhenyu Pan, Yang Gao\*, Tingjian Ge

University of Massachusetts Lowell, Massachusetts, USA

o. Meta-Learning for Industrial System Monitoring via Multi-objective

Optimization

Parastoo Kamranfar\*, Jeff Bynum, Amarda Shehu

George Mason University, USA

o. Real-Time Spatiotemporal Air Pollution Prediction with Deep

Convolutional LSTM through Satellite Image Analysis

Pratyush Muthukumar, Mohammad Pourhomayoun, Emmanuel Cocom,

Jeanne Holm, Dawn Comer, Anthony Lyons, Irene Burga, and

Christa Hasenkopf

California State University, Los Angeles, California, USA

o. A Network Traffic Reduction Method for Smart Dust IoT by

Sensor Clustering

Joonsuu Park, Keehyun Park\*

Department of Computer Engineering, Keimyung University,

Daegu, Republic of Korea

July 28

o. The Implementation of Application for Comparison and Output of Fine

Dust and Public Database using Fine Dust Sensor

YunJung Lim, WoongSik Kim\*, Yongsuk Kim

University of Konyang, Republic of Korea

o. A Self-adaptivity Indoor Ranging Algorithm Based on Channel State

Information with Weight Grey Prediction Model

Jingjing Wang\*, Joon Goo Park

Electronics Engineering, Kyungpook National University, Daegu,

Republic of Korea

o. A New Real-time Geolocation Tracking Tool Enhanced with

Signal Filtering

Erkan Meral, Mehmet Serdar Guzel, Omer Sevinc\*, Mehrube Mehrubeoglu

Software Systems, Gazi University, Ankara, Turkey; Computer

Engineering, Ankara University, Ankara Turkey; Computer Programming,

Ondokuz Mayis University, Samsun, Turkey; Department of Engineering,

Texas A&M University-Corpus Christi, Corpus Christi, Texas, USA

o. Data-driven Environmental Management: A Digital Prototype Dashboard

to Analyze and Monitor the Precipitation on Susquehanna River Basin

Siamak Aram\*, Maria H. Rivero, Nikesh Pahuja, Roozbeh Sadeghian,

Joshua L. R. Paulino, Michael Meyer, James Shallenberger

Harrisburg University School of Science and Technology, Harrisburg,

PA, USA; Susquehanna River Basin Commission, Harrisburg, PA, USA

o. Do Sarcastic News and Online Comments Make Readers Happier?

Jih-Hsin Tang\*, Chih-Fen Wei, Ming-Chun Chen, Chih-Shi Chang

Department of Information Management, National Taipei University

of Business, Taiwan

o. Content-Based Image Retrieval Using Deep Learning

Tristan Jordan, Heba Elgazzar\*

School of Engineering and Computer Science, Morehead State

University, Morehead, Kentucky, USA

o. Application of Image Processing Tools for Scene-based Marine

Debris Detection and Characterization

Mehrube Mehrubeoglu\*, Farha Pulukool, Dekwaan Wynn,

Lifford McLauchlan, Hua Zhang

Department of Engineering, Texas A&M University-Corpus Christi,

Texas, USA; Department of Computer Sciences, Texas A&M

University-Corpus Christi, Texas, USA; Department of EECS,

Texas A&M University-Kingsville, Texas, USA

o. Computer-aided Industrial Inspection of Vehicle Mirrors Using

Computer Vision Technologies

Hong-Dar Lin\*, Hsu-Hung Cheng

Department of Industrial Engineering and Management,

Chaoyang University of Technology, Taiwan

o. A Deep Learning Framework for Blended Distortion Segmentation

in Stitched Images

Hayat Ullah\*, Irfan Tahir, Kyungjin Han, Jong Weon Lee

Department of Software Convergence, Sejong University, Seoul,

Republic of Korea

o. Polyhedral Approximation for 3D Objects by Dominant Point Detection

Miguel Vazquez-Martin del Campo\*, Cesar Omar Jimenez-Ibarra,

Hermilo Sanchez-Cruz, Mario Alberto Rodriguez-Diaz

Universidad Autonoma de Aguascalientes, Departamento de Ciencias

de la Computacion, Mexico ITA, Mexico

July 28

o. Axial Symmetry Detection Using AF8 Code

Jimenez-Ibarra Cesar Omar\*, Vazquez-Martin del Campo Miguel, and

Sanchez-Cruz Hermilo

Universidad Autonoma de Aguascalientes, Departamento de Ciencias

de la Computacion, Mexico

o. Automation of an Off-Grid Vertical Farming System to Optimize

Power Consumption

Otto Randolph, Bahram Asiabanpour\*

Ingram School of Engineering, Texas State University,

San Marcos, Texas, USA

o. Workflow for Investigating Thermodynamic, Structural and Energy

Properties of Condensed Polymer Systems

James Andrews\*, Estela Blaisten-Barojas

Center for Simulation and Modeling and Department of Computational

and Data Sciences, George Mason University, Fairfax, Virginia, USA

o. Prototype of MANET Network with Ring Topology for Mobile Devices

Ramses Fuentes-Perez, Erika Hernandez-Rubio, Diego D. Flores-Nogeira,

and Amilcar Meneses-Viveros\*

Instituto Politecnico Nacional-ESCOM, Mexico; Instituto Politecnico

Nacional, SEPI-ESCOM. Mexico; Departamento de Computacion,

Cinvestav-IPN, Mexico

o. Toward a Numerically-Robust and Efficient Implicit Integration

Scheme for Parallel Power Grid Dynamic Simulation Development

in GridPACK

Shuangshuang Jin\*, Shrirang G. Abhyankar, Bruce J. Palmer,

Renke Huang, Wiliam A. Perkins, Yousu Chen

School of Computing, Clemson University, North Charleston,

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High Performance Computing, Pacific Northwest National Labtoratory,

Richland, Washington, USA; Electricity Infrastructure, Pacific

Northwest National Laboratory, Richland, Washington, USA;

Hydrology Group, Pacific Northwest National Labtoratory, Richland,

Washington, USA

o. Directive-based Hybrid Parallel Power System Dynamic Simulation

on Multi-Core CPU and Many-Core GPU Architecture

Cong Wang\*, Shuangshuang Jin, Yousu Chen

School of Computing, Clemson University, North Charleston,

South Carolina, USA; Electricity Infrastructure, Pacific Northwest

National Laboratory, Richland, Washington, USA

o. Composition of Parent-Child Cyberattack Models

Katia P. Maxwell\*, Mikel D. Petty, Tymaine S. Whitaker,

Walter A. Cantrell, C. Daniel Colvett

Department of Mathematical, Computing and Natural Sciences,

Athens State University, Athens, Alabama, USA; Department of

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Huntsville, Alabama, USA; College of Computing and Technology,

Lipscomb University, Nashville, Tennessee, USA; Department of

Systems Engineering, University of Alabama in Huntsville,

Huntsville, Alabama, USA

o. Improving Analysis in SPMD Applications for Performance Prediction

Felipe Tirado\*, Alvaro Wong, Dolores Rexachs, Emilio Luque

Computer Architecture and Operating System Department,

Universidad Autonoma de Barcelona, Barcelona, Spain;

Departamento de Computacion e Industrias, Universidad Catolica

del Maule, Talca, Chile

July 28

o. A Comprehensive Survey on Fingerprint Liveness Detection Algorithms

by Database and Scanner Model

Riley Kiefer, Ashok Patel\*

Department of Computer Science, Florida Polytechnic University,

Lakeland, Florida, USA

o. Automotive Vehicle Security Metrics

Guillermo A. Francia, III

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Florida, USA

o. An Analysis of Applying STIR/Shaken to Prevent Robocalls

James Yu

DePaul University, Chicago, Illinois, USA

o. A Practice of Detecting Insider Threats within a Network

David Velez, Harry Staley, Navin Mathew, Daniel De Leon II, and

Jeong Yang\*

Department of Computing and Cyber Security,

Texas A&M University - San Antonio, Texas, USA

o. Towards Home Area Network Hygiene: Device Classification and

Intrusion Detection for Encrypted Communications

Blake A. Holman, Joy Hauser, George T. Amariucai

Kansas State University, Manhattan, Kansas, USA

o. A Hybrid AI and Simulation-Based Optimization DSS for

Post-Disaster Logistics

Gonzalo Barbeito, Dieter Budde, Maximilian Moll, Stefan Pickl,

and Benni Thiebes

Fakulat fur Informatik, Universitat der Bundeswehr Muchen,

Germany; German Committee for Disaster Reduction (DKKV),

Bonn, Germany

o. Secure-Stor: A Novel Hybrid Secure Edge Server Architecture and

CDN to Enhance the Security and Response Time for Edge Devices

Mais Nijim, Raghavar Reddy, Muhammad Aurangzeb

Electrical Engineering and Computer Science Department,

Texas A&M University-Kingsville, Texas, USA

o. Intrusion Detection through Gradient in Digraphs

S. S. Varre, Mais Nijim, Muhammad Aurangzeb

EECS Department, Texas A&M University-Kingsville, Texas, USA

o. Statistical Analysis of Prime Number Generators Putting

Encryption at Risk

Aykan Inan

University of Applied Sciences Ravensburg-Weingarten,

Baden-Wurttemberg, Germany

o. Static Analysis for Software Reliability and Security

Hongjun Choi, Dayoung Kang, Jin-Young Choi\*

School of Cybersecurity, Korea University, Seoul, Republic of Korea

o. Chor-Rivest Knapsack Cryptosystem in a Post-Quantum World

Raul Duran Diaz, Luis Hernandez Encinas\*, Agustin Martin Munoz,

and Araceli Queiruga Dios

Departamento de Automatica, Universidad de Alcala, Alcala de

Henares, Spain; Consejo Superior de Investigaciones Cientificas

(CSIC), Madrid, Spain; Departamento de Matematica Aplicada,

Universidad de Salamanca, Salamanca, Spain

July 28

o. Enhancing the Cybersecurity Education Curricula Through

Quantum Computation

Hisham Albataineh, Mais Nijim

Department of Physics and Geoscience, Texas A&M University-

Kingsville, Texas, USA; Department of EECS, Texas A&M

University-Kingsville, Texas, USA

o. Secure Authentication Protocol for Drones in LTE Networks

Dayoung Kang, Gyuhong Lee, Jin-Young Choi

The Graduate School of Information Security, Korea University, Korea;

The Department of Cyber-warfare, Korea Army Academy at Yeongcheon, Korea;

The Graduate School of Information Security, Korea University, Korea

o. Mixed-integer Linear Programming Models for the Simultaneous

Unloading and Loading Processes in a Maritime Port

Ali Skaf\*, Sid Lamrous, Zakaria Hammoudan, Marie-Ange Manier

Univ. Bourgogne Franche-Comte, FEMTO-ST Institute/CNRS,

(UTBM), Belfort, France

o. A Dynamic Scaling Methodology for Improving Performance of

Data Intensive Systems

Nashmiah Alhamdawi, Yi Liu\*

Department of EECS, South Dakota State University, Brookings,

South Dakota, USA; Department of Computer and Information Science,

University of Massachusetts Dartmouth, Massachusetts, USA

o. Implications of Blockchain Technology in the Health Domain

Merve Vildan Baysal, Ozden Ozcan-Top, Aysu Betin Can\*

The Scientific and Technological Research Council of Turkey,

Ankara, Turkey; Information Systems, Middle East Technical

University, Ankara, Turkey

o. A Preliminary Study of Transactive Memory System and Shared

Temporal Cognition in the Collaborative Software Process Tailoring

Pei-Chi Chen, Jung-Chieh Lee, Chung-Yang Chen\*

Trend Micro Inc., Texas, USA; Beijing Normal University Zhuhai,

Zhuhai City, P. R. China; Department of Information Management,

National Central University, Taoyuan city, Taiwan

o. Analyzing Technical Debt of a CRM Application by Categorizing

Ambiguous Issue Statements

Yasemin Doganci\*, Ozden Ozcan-Top, Altan Kocyigit

Information Systems Department, Graduate School of Informatics,

Middle East Technical University, Ankara, Turkey

o. Melody Based Pitch Correction Model for a Voice-Driven

Musical Instrument

John Carelli

Computer Science and Information Technology, Kutztown University

of Pennsylvania, Kutztown, Pennsylvania, USA

o. A Framework for Developing Custom Live Streaming Multimedia Apps

Abdul-Rahman Mawlood-Yunis

Physics and Computer Science Department, Wilfrid Laurier

University, Waterloo, Canada

LIST OF BOOKS TO BE PUBLISHED

All accepted papers whose authors follow the instructions (the

instructions appeared in the NOTIFICATION OF ACCEPTANCE - already

emailed to the authors) will be published by Springer Nature.

Refer to the list of books below for more details. We anticipate

to have the books published around October/November 2020.

SPRINGER BOOK SERIES:

Transactions on Computational Science & Computational Intelligence

https://www.springer.com/series/11769

ISSN: 2569-7072

TITLES TO BE PUBLISHED IN THE ABOVE BOOK SERIES:

-> Advances in Data Science and Information Engineering

Springer ID: 89066304 (Book ID: 495582\_1\_En)

(Accepted papers of ICDATA 2020, IKE 2020)

Editors: Dr. Robert Stahlbock, Dr. Gary M. Weiss,

Dr. Mahmoud Abou-Nasr, Prof. Cheng-Ying Yang,

Prof. Hamid R. Arabnia, Prof. Leonidas Deligiannidis

-> Advances in Security, Networks, and Internet of Things

Springer ID: 89066305 (Book ID: 495583\_1\_En)

(Accepted papers of SAM 2020, ICWN 2020, ICOMP 2020, ESCS 2020)

Editors: Prof. Kevin Daimi, Prof. Hamid R. Arabnia,

Prof. Leonidas Deligiannidis, Prof. Min-Shiang Hwang,

Prof. Fernando G. Tinetti

-> Advances in Software Engineering, Education, and e-Learning

Springer ID: 89066306 (Book ID: 495584\_1\_En)

(Accepted papers of FECS 2020, FCS 2020, SERP 2020, EEE 2020)

Editors: Prof. Hamid R. Arabnia Prof. Leonidas Deligiannidis,

Prof. Fernando G. Tinetti, Prof. Quoc-Nam Tran

-> Advances in Artificial Intelligence & Applied Cognitive Computing

Springer ID: 89066307 (Book ID: 495585\_1\_En)

(Accepted papers of ICAI 2020, ACC 2020)

Editors: Prof. Hamid R. Arabnia, Dr. Ken Ferens,

Prof. David de la Fuente, Dr. Elena B. Kozerenko,

Prof. Jose Angel Olivas Varela, Prof. Fernando G. Tinetti

-> Advances in Parallel & Distributed Processing, and Applications

Springer ID: 89066309 (Book ID: 495587\_1\_En)

(Accepted papers of PDPTA 2020, CSC 2020, MSV 2020, GCC 2020)

Editors: Prof. Hamid R. Arabnia, Prof. Leonidas Deligiannidis,

Prof. Michael R. Grimaila, Dr. Douglas D. Hodson,

Prof. Kazuki Joe, Dr. Masakazu Sekijima,

Prof. Fernando G. Tinetti

-> Advances in Computer Vision and Computational Biology

Springer ID: 89066308 (Book ID: 495586\_1\_En)

(Accepted papers of IPCV 2020, HIMS 2020, BIOCOMP 2020, BIOENG 2020)

Editors: Prof. Hamid R. Arabnia, Prof. Leonidas Deligiannidis,

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Prof. Quoc-Nam Tran