

# Conference Program

## 5<sup>th</sup> IAJC/ISAM Joint International Conference



Engineering and the Global Economy:  
Ideas for the 21st Century



---

The International Conference on  
Engineering & Technology  
November 6-8, 2016  
Orlando, Florida

---

---

# Table of Contents

Welcome Messages .....	3-5
Conference Executive Board Members .....	6-7
Sponsors .....	8-9
Workshops .....	10-11
Conference Registration Desk Hours .....	12
Meals, Breaks, Receptions .....	12
IAJC/ISAM 2016 Conference Daily Schedule	
Monday, November 7 .....	13-27
Tuesday, November 8 .....	28-34
Find Authors by Page Number .....	35-38
Embassy Suites Hotel Map .....	(back cover)

---

## IAJC/ISAM Conference Registration Desk Hours

**Sunday 3:00—7:00pm**  
**Monday 8:30—11:30am / 2:30—6:00pm**  
**Tuesday 8:00—10:00am**

**The Embassy Suites hotel offers FREE breakfast (buffet), FREE Internet, FREE parking, and FREE daily receptions with open bar and snacks. Shuttle service is available to area shopping and all Central Florida attractions.**

---

## *A Message from the IAJC and ISAM Presidents*



Dear Conference Participants:

As IAJC President and ISAM President, we would like to welcome you to the 5<sup>th</sup> IAJC/ISAM Joint International Conference on engineering and related technologies. The conference theme, [Engineering and the Global Economy: Ideas for the 21<sup>st</sup> Century](#), reflects a significant need for academic global connections and partnerships. Such partnerships can provide the backbone for strategic planning that may lead to the creation of a better future for the next generation of students, faculty, and researchers, so that they, in turn, can lead the world in the tight, competitive global markets of the 21<sup>st</sup> century. The IAJC and ISAM Conference Executive and Advisory Boards, comprised of well-known individuals from over 50 of the top universities from around the globe, have made every effort to present this high-quality, joint conference, and to ensure that your time spent with us is both rewarding and productive. If you have questions about the conference or need assistance, please feel free to contact any board member.

The famed city of Orlando, with its rich and varied history, offers an excellent conference venue. It is the top vacation destination in the world, providing many fun activities for all ages. Best wishes for a pleasant stay and for a productive and successful conference. Thank you for joining us.

Sincerely,

Mark Rajai, Ph.D.  
IAJC President  
California State University-Northridge  
Phone: 818-677-5003  
Email: [mark.rajai@csun.edu](mailto:mark.rajai@csun.edu)

Alok Verma, Ph.D.  
ISAM President  
Old Dominion University  
Phone: 757-683-3766  
Email: [averma@odu.edu](mailto:averma@odu.edu)

---

## ***Message from the IAJC/ISAM Conference General Chair***



As we in higher education and industry reflect back on the first decade in this new millennium, we realize that the sharing of ideas and resources is an effective way for us to create a better future for the next generation of students, faculty, and researchers. In the competitive and tight global markets of the 21st century, leading companies across industry have embarked on massive reorganizations, mergers, partnerships, and varied collaborative projects, not only with their like-minded peers, but also with their rivals, in order not only to survive, but to grow and thrive. As industry changes with time, so must academia. Conversely, as academic R&D efforts provide advancements in technology, so must industry provide a quick turnaround from concept to market. However, many academic organizations, journals, and conferences have been slow to adapt, and, thus, to provide the necessary platforms for the dissemination of knowledge.

Beginning in 2004, the editorial board of the International Association of Journals and Conferences (IAJC) embarked on unprecedented efforts to establish groundbreaking strategic partnerships with other major rival journals and organizations in order to share resources. This approach offers authors a unique opportunity to attend one conference, yet have the ability to publish their paper(s) in one of a broad selection of journals representing interests as diverse as those of the researchers and educators in fields related to engineering, engineering technology, industrial technology, mathematics, science, and education. These efforts resulted in an innovative model for joint international conferences that include a variety of journals and organizations. IAJC joint and independent international conferences have been a great success, with the main conferences being held in the United States, while simultaneous regional conferences are held in other parts of the world. In addition to attracting top authors to its conference venues, IAJC attracts myriad journals that wish to publish the best of what its conference attendees have to offer, thereby creating excitement in academic communities around the

---

world. IAJC is a first-of-its-kind, pioneering organization. It is a prestigious, global, multilayered umbrella consortium of academic journals, conferences, organizations, and individuals committed to advancing excellence in all aspects of technology-related education.

### **Conference Statistics:**

The submissions for this conference included 425 abstracts from 118 educational institutions and companies worldwide (multiple submissions from the same authors were not counted). These represented 46 of the 50 U.S. states and 37 countries. After a multi-level review process, only 91 full papers and 29 abstracts were accepted for presentation at the conference and for publication in the conference proceedings. This reflects an acceptance rate of about 28% for both abstracts and full papers (22% for our previous conference), which is one of the lowest acceptance rates of any international conference. Organizing such broad conferences is a monumental task and could not be accomplished without the help and support of the conference committee, the division/session chairs, and the reviewers. Thus, I offer my sincerest thanks to all for their hard work and dedication in the development of this outstanding 2016 conference program. I personally hope you will seek them out to thank them for their fine work. As we continue to offer, and to strive to improve upon, these high-quality and unique conferences, we are seeking dedicated individuals to join us on the planning committee for the next conference—scheduled for fall, 2018. Please watch for updates on our website ([www.IAJC.org](http://www.IAJC.org)) and contact us anytime with comments, concerns, or suggestions. On behalf of the 2016 IAJC/ISAM conference committee and IAJC Board of Directors, we thank you for participating in this great conference, and we hope to see you next time.

Sincerely,

*Philip D. Weinsier  
IAJC/ISAM Conference General Chair*

---

# ***Conference Executive Board Members***

## **Conference General Chair**

### ***Philip D. Weinsier***

Bowling Green State University-Firelands

Phone: 419.372.0628

Email: [philipw@bgsu.edu](mailto:philipw@bgsu.edu)

## **IAJC President and Conference Co-Chair**

### ***Mark Rajai***

California State University-Northridge

Phone: 818.677.5003

Email: [mrajai@csun.edu](mailto:mrajai@csun.edu)

## **ISAM President and Conference Co-Chair**

### ***Alok K. Verma***

Old Dominion University

## **Engineering Division**

### ***Adam Lewis* (Co-Chair)**

Athens State University

### ***Ravindra Thamma* (Co-Chair)**

Central Connecticut State University

### ***Rami Haddad* (Chair—Electrical)**

Georgia Southern University

### ***Akram Abu-aishah* (Co-Chair—Electrical)**

University of Hartford

### ***Tom Nicholas* (Chair—Construction)**

University of North Carolina-Charlotte

### ***Alex Sergeyev* (Chair—Aerospace)**

Michigan Technological University

## **Technology in Higher Education Division**

### ***Ali Eydgahi* (Chair)**

Eastern Michigan University

### ***Sudershan Jetley* (Co-Chair)**

Bowling Green State University

### ***Dale Rowe* (Co-Chair)**

Brigham Young University

## **Manufacturing & Industrial Division**

### ***Vukica Jovanovic* (Chair)**

Old Dominion University

### ***Zaki Kuruppalil* (Co-Chair)**

Ohio University

### ***Tatiana Goris* (Co-Chair)**

Purdue University

### ***Alton Kornegay* (Co-Chair)**

North Carolina A&T University

### ***Mohammad Sima* (Co-Chair)**

Lamar University

---

## **Information Technology, Business, Entrepreneurship, and Computer Science Division**

***Sam Khoury*** (Chair)

Athens State University

***Marla Rogers*** (Co-Chair)

Fastboot Mobile

***Samir Talssi*** (Co-Chair)

Hassan II University

## **International Committee**

***Shaobiao Cai*** (Chair)

Minnesota State University

## **Registration Committee**

***Dale Litwhiler*** (Chair)

Penn State University Berks

***Suzanne Keilson*** (Co-Chair)

Loyola University Maryland

## **Program Committee**

***Jin Zhu*** (Chair)

University of Northern Iowa

## **Scientific Committee**

***Kouroush Jenab*** (Chair)

Embry Riddle Aeronautical University

***Hamed Niroumand*** (Chair)

University of Florida

***Xiaobing Hou*** (Co-Chair)

Central Connecticut State University

## **Hospitality Committee**

***Austin Cheney*** (Chair)

Eastern Illinois University

## **Proceedings Committee**

***Marilyn Dyrud*** (Chair)

Oregon Institute of Technology

## **Special Awards Committee**

***Paul J. Wilder*** (Chair)

Vincennes University

***Abdallah Mohammed*** (Co-Chair)

State University of New York

## **Advisory Board**

***Paul J. Wilder*** (Chair)

Vincennes University

---

## Organization Sponsors

- International Association of Journals & Conferences (IAJC)
- International Society of Agile Manufacturing (ISAM)
- The Institute of Electrical and Electronics Engineers (IEEE)
- American Society for Engineering Education (ASEE)
- Lean Institute

## Journal Sponsors

- International Journal of Modern Engineering (official and flagship journal of IAJC)
- International Journal of Engineering Research and Innovation (official journal of IAJC)
- Technology Interface International Journal (official journal of IAJC)
- International Journal of Agile Manufacturing (official journal of ISAM)
- Computers and Concrete (ISI Journal)
- Earthquakes and Structures (ISI Journal)
- Geomechanics and Engineering (ISI Journal)
- Interaction and Multiscale Mechanics (ISI Journal)
- Membrane Water Treatment (ISI Journal)
- Multiscale and Multiphysics Mechanics (ISI Journal)
- Ocean Systems Engineering (ISI Journal)
- Steel and Composite Structures (ISI Journal)
- Structural Engineering and Mechanics (ISI Journal)
- Journal of Industry and Higher Education
- International Journal of Entrepreneurship and Innovation
- Journal of STEM Education

## University Sponsors

- California State University-Northridge
- University of California-Berkeley
- Old Dominion University
- Iran University of Science and Technology
- Bowling Green State University
- Bowling Green State University-Firelands
- Georgia Southern University
- University of Hartford
- Michigan Tech University
- Ohio University
- Lamar University
- Brigham Young University
- Hassan 2 University (MOROCCO)
- Loyola University Maryland
- Minnesota State University
- University of Northern Iowa
- Athens State University
- Sam Houston State University
- Central Connecticut State University
- Eastern Illinois University
- Texas A&M University
- Purdue University
- Purdue University-North Central
- Penn State University
- Penn State Berks
- Central Michigan University
- State University of New York
- Oregon Institute of Technology
- Eastern Michigan University
- Vincennes University
- Tennessee Tech
- North Carolina A&T University
- University of North Carolina
- Al Ghurair University, UAE
- Amirkabir University of Technology

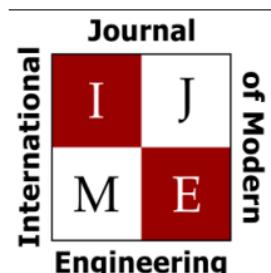
## Business Sponsors

Advanced Information Systems  
Embassy Suites Orlando  
Loris Printing

# Main Conference Sponsors

California State University  
**Northridge**

**BGSU** Firelands



# Workshops

## Workshop #1:

### Getting the Rubber to Meet the Road: Breaking Down Resistance to Lean

**Monday, November 7, 2:00 – 3:45pm**

**Cypress #4 — FREE**

**Maximum attendance—20**

Preregistration is requested to help gauge attendance.

Evidence-based practitioners no longer question the ability of Lean Six Sigma (Lean) to deliver significant cost reductions and enhanced customer value. However, many firms are unable to realize the benefits of Lean, due to what is euphemistically called a "lack of Lean culture." More often than not, what is really meant is that

- Workers don't trust management
- Management doesn't trust workers, and/or
- Neither group really believes that Lean can work for them because they are unique.

If you teach Lean courses, work as a quality engineer, own a company, or consult on Lean implementations then this workshop is for you. This workshop will demonstrate the use of simulations to develop trust between management and workers, while teaching Lean principles. Participants will play a role in a simulation, learn how to incorporate Lean principles into simulations, and learn how to use simulations to build the trust and knowledge required to implement Lean.



*Presented by Dr. Michelle Brodke  
Department of Applied Sciences  
Bowling Green State University  
Firelands College  
[mbrodke@bgsu.edu](mailto:mbrodke@bgsu.edu)*

---

# **Workshop #2: Understanding and Teaching Statistical Process Control. A Hands-on Approach to Preparing Your Students for High-Tech Manufacturing.**

**Monday, November 7, 4:00 – 6:00pm  
Cypress #4 — FREE**

Preregistration is requested to help gauge attendance.

This workshop will answer the questions: "What is Statistical Process Control (SPC)?" and "Why is it important to preparing high tech manufacturing technologists for high tech manufacturing?" We will discuss the basics of Statistical Process Control and cover the following topics using a hands on, measurement approach:

Process Variation – Why is it important

Statistical Tools necessary to employ and understand:

SPC

Mean, median, mode

Standard deviation

Control charts

Interpreting control charts

The influence of a measurement system on data

Attendees will be given access to all workshop materials, presentations, reading materials, Excel templates and will also receive written materials at the workshop.

The Southwest Center for Microsystems Education will also provide links to all of its other downloadable educational materials as well, including, but not limited to, videos, lectures, access to online distance learning short course(s) which will have all the materials available. This workshop is made possible through a grant from the National Science Foundation, Department of Undergraduate Education Advance Technological Education program, DUE #1205138.

*Presented by Barbara C. Lopez and Dr. Matthias W. Pleil,  
Southwest Center for Microsystems Education at the  
University of New Mexico ([botero@unm.edu](mailto:botero@unm.edu),  
[mpleil@unm.edu](mailto:mpleil@unm.edu); 505-272-7157)*



# Meals, Breaks, Receptions

*Note: Monday lunch is not included in “Full Conference” registrations. However, IAJC attendees will receive a 20% discount at the hotel restaurant.*

## **Sunday, November 6**

- 5:30 — 7:00pm  
Daily reception with open bar and snacks for Embassy Suites guests

## **Monday, November 7**

- 7:00 — 8:30am  
Full breakfast for Embassy Suites guests
- 10:15 — 10:30am  
Refreshment break
- 12:30 — 2:00pm  
Executive Board Lunch
- 3:45 — 4:00pm  
Refreshment break
- 5:30 — 7:00pm  
Daily reception with open bar and snacks for Embassy Suites guests
- 7:00 — 8:30pm  
Dinner banquet and awards ceremony for all conference attendees

## **Tuesday, November 8**

- 7:00 — 8:30am  
Full breakfast for Embassy Suites guests
- 10:15 — 10:30am  
Refreshment break

# Session Legend

**ENG** Engineering

**EDU** Higher Education

**MFG** Manufacturing

**ITC** Information Technology, Business, Entrepreneurship, and Computer Science

# Daily Schedule – Monday

Monday, November 7, 2016

**8:30–10:15am Cypress 1**

## **MFG 101: Topics in Lean Manufacturing**

**Session Chair: Alex Sergeyev**  
(Michigan Tech)

### **Paper #031**

**Can Lean Six Sigma be Implemented in Higher Education While Ensuring that All Customer Needs are Being Met?**

*E. Shirl Donaldson, The University of Texas at Tyler*

### **Abstract #042**

**An Approach For Lean Training in Service Sectors**

*Zaki Kuruppalil, Ohio University;  
Todd Myers, Ohio University*

### **Paper #091**

**Lean Agility at Scale: A Role for Strategy in Determining Performance**

*Andrew Czuchry, Sr., East Tennessee State University; Andrew Czuchry, Jr. ADP*

### **Abstract #158**

**Lean Ohio Boot Camp: One Approach to Lean Government Processes**

*Michelle Brodke, Bowling Green State University—Firelands*

### **Abstract #169**

**Process Simulations to Improve Judgment in Lean Implementations**

*Michelle Brodke, Bowling Green State University—Firelands*

**8:30–10:15am Cypress 2**

## **ITC 401: Wireless Technologies**

**Session Chair: Austin Cheney**  
(Eastern Illinois University)

### **Paper #043**

**A Simple Block Coding Scheme for Peak-to-Average-Power Ratio Reduction in Multi-Carrier Systems**

*Yoonill Lee, Purdue University—Northwest*

# Daily Schedule – Monday

## Paper #100

### **Outage Results for Heterodyne Differentially Encoded PSK over FSO Turbulence Channel with Pointing Errors**

*Omar Hasan, Princess Suamay University for Technology (JORDAN);  
Akram Abu-Aisheh, University of Hartford*

## Paper #102

### **Performance of FSO System over Double Weibull Turbulence with Pointing Error**

*Omar Hasan, Princess Suamay University for Technology (JORDAN);  
Salah Al-Deen Almousa, Princess Suamay University for Technology (JORDAN)*

## Abstract #113

### **Watching the Internet of Things: The Convergence of Monitoring**

*Dale Rowe, Brigham Young University;  
Sarah Cunha, Brigham Young University*

## Paper #151

### **Main Factors Influencing Mobile Commerce Adoption**

*Mohammadjafer Esmaeili, University of Dayton;  
Ali Eydgahi, Eastern Michigan University*

## **8:30–10:15am Cypress 3**

### **ENG 203: Topics in Solar and Geothermal Energies**

**Session Chair: Eric Dietz**  
(Purdue University)

## Paper #006

### **Feasibility of Using an Augmenting Solar Thermal System for a Greenhouse in NW Ohio**

*Sudershan Jetley, Bowling Green State University;  
Binisha Shrestha, Bowling Green State University*

## Paper #027

### **Design and Development of Mobile Geothermal Laboratory Equipment**

*Faruk Yildiz, Sam Houston State University;  
Keith Coogler, Sam Houston State University*

# Daily Schedule – Monday

## Paper #150

### **Development of a Solar Thermal Water Management System (STWMS):**

### **An Undergraduate Research Experience**

*Steve Ngwira, Nissan;*

*Nathan Frazier, UPS;*

*Kendal Lewis, Aisin Automotive Casting (TN);*

*Priyam Patel, Akebono Brake Corporation;*

*Ahmed ElSawy, Tennessee Technological University*

## Paper #155

### **Development of Combined Concentrated Photovoltaic and Fluidic Thermal Extraction for Harnessing the Sun Energy—Undergraduate Research Experience**

*Michael Kronland, Fastenal (GA);*

*Nicholas Leak, Aphena Pharma Solution, Inc.;*

*Joseph Randall, Eastman Chemical Company;*

*Cory Womack, Tennessee Technological University;*

*Ahmed ElSawy, Tennessee Technological University*

## Abstract #165

### **Renewable Energy Education Initiative for K-12 Teachers with Sustainable Energy Education Network**

*Faruk Yildiz, Sam Houston State University;*

*Robert Lane, Sam Houston State University;*

*Doug Ullrich, Sam Houston State University*

## **8:30–10:15am Cypress 4**

### **ENG 201: Topics in Electrical Grid Technologies**

#### **Session Chair: Rex Kanu**

*(Purdue University)*

## Abstract #087

### **Distributed Generation Systems Modeling and Simulation Visual Library**

*Adel El Shahat, Georgia Southern University;*

*Rami Haddad, Georgia Southern University;*

*Youakim Kalaani, Georgia Southern University*

## Paper #089

### **High-Speed PM Generator for Optimized Sizing Based on Particle Swarm for Smart Grids**

*Adel El Shahat, Georgia Southern University;*

*Rami Haddad, Georgia Southern University;*

*Youakim Kalaani, Georgia Southern University*

# Daily Schedule – Monday

## Paper #095

### **Battery Energy Storage for a Low-Voltage DC Microgrid System**

*Dale Litwhiler, Penn State University;  
Nicholas Batt, Ecoult; Jason Hoffman, Ecoult*

## Paper #145

### **Measured and Simulated Performance of a Grid-Connected PV System in a Humid Subtropical Climate**

*Fredericka Brown, The University of Texas at Tyler;  
Raquel Lovelace, The University of Texas at Tyler;  
Harmonie Hawley, The University of Texas at Tyler*

## Paper #161

### **Smart Charging Management System of Plugged-in EVs Based on User Driving Patterns in Micro-Grids**

*Ali Ameli, University of Paderborn, (GERMANY);  
Stefan Krauter, University of Paderborn, (GERMANY);  
Mohammad Taghi Ameli, Shahid Beheshti University (IRAN); Saeid Moslehpoour, Hartford University*

## **8:30–10:15am Magnolia A**

### **EDU 301: Topics in Curriculum Development and Teaching I**

#### **Session Chair: Karen Ruggles**

(DeSales University)

## Paper #014

### **Live Long and Prosper: A Robotics-Based Recruitment and Retention Program**

*Terry Marbut, Jacksonville State University;  
Jess Godbey, Jacksonville State University;  
Dana Ingalsbe, Jacksonville State University;  
Kelly Ryan, Robotics Education and Competition Foundation*

## Paper #044

### **Lessons Learned in Cross-College Collaborations: An Engineering and Early Childhood Education Design Project**

*Neil Littell, Ohio University;  
Sara Hartman, Ohio University*

## Paper #068

### **Thermo-Fluid Curriculum for Engineering Technology: Learning Outcomes and Industry Needs**

*Sean June, Christian Brothers University;  
Sudhir Kaul, Western Carolina University*

# Daily Schedule – Monday

## Paper #083

### **Perceptions of the Advanced Manufacturing Competency Model (AMCM) for Curriculum Development**

*Mark Doggett, Western Kentucky University;  
Muhammad Jahan, Western Kentucky University*

## Paper #154

### **Cost Estimation for Implementation of a BS Program in Mechatronics Engineering Technology**

*Mauricio Torres, Northern Kentucky University;  
Morteza Sadat-Hossieny, Northern Kentucky University*

**10:15–10:30am**

## **Refreshment Break**

**10:30–12:30pm Cypress 1**

### **MFG 102: Supply Chain Management and Artificial Neural Networks**

#### **Session Chair: Youakim Kalaani**

(Georgia Southern University)

## INVITED SPEAKER #028

### **Extensions of Dynamic Programming for Design and Analysis of Decision Trees**

*Mikhail Moshkov, King Abdullah University of Science and Technology*

## Paper #030

### **Performance Analysis of Distributed Systems Involving Loops**

*Toqeer Israr, Eastern Illinois University*

## Abstract #046

### **Fast Neural Networks Training For Class Identification Using Parallel Processing**

*Mehran Aminian, St. Mary's University;  
Farzan Aminian, Trinity University;  
Shohreh Varmazani, Trinity University*

## Abstract #131

### **Development of an Online Graduate Business Program: A Case Study and Proposed Model for Successful Approval and Implementation**

*Sam Khoury, Spring Hill College*

# Daily Schedule – Monday

## Paper #156

### **Strategic Supply Chain Source Selection Using a Bayesian Multi-Criteria Decision-Based Approach**

*Mohammad Rahman, Central Connecticut State University;*

*Ravindra Thamma, Central Connecticut State University;*

*Mark Rajai, California State University-Northridge*

## **10:30–12:30pm Cypress 2**

### **ITC 402: Technology and Education Management**

#### **Session Chairs:**

**Emily Crawford** (Strayer University)

**Bin Chen** (Purdue University Northwest)

## Paper #007

### **Technology Management: Adapting to A Rapidly Changing World**

*James McKirahan, Jr., Indiana State University;*

*Austin Cheney, Eastern Illinois University*

## Paper #017

### **Technology Management as a Tool for Learning Outcomes Improvement**

*Irina Sergeyeva, Finlandia University;*

*Aleksandr Sergeyev, Michigan Technological*

*University*

## Paper #049

### **Addressing the Challenges of Preparing Science Teachers to Introduce Engineering to Early Learners in Elementary and Middle Schools**

*Tatiana Goris, Purdue University;*

*Shirl Donaldson, The University of Texas at Tyler*

## Abstract #076

### **A Sandbox Development for Demonstrating BOM Transmission in PLM and ERP Integrated Systems**

*Zhen Zeng, McGill University;*

*Edie Schmidt, Purdue University*

## Paper #157

### **Optimal Resources for a POD Unit**

*Colby Craig, Purdue University;*

*Eric Dietz, Purdue University;*

*Adam Kirby, Purdue University*

# Daily Schedule – Monday

**10:30–12:30pm Cypress 3**

**ENG 204: Wind Technologies**

**Session Chair: Mohan Devgun**

(Buffalo State University)

**Paper #038**

**Comparative Study of Various Custom-Constructed Wind Augmentation Shrouds for Optimal Design**

*Ulan Dakeev, Texas A&M University-Kingsville;  
Farzin Heidari, Texas A&M University-Kingsville;  
Mohammad Bijapur, Texas A&M University-Kingsville;  
Sumanth Yanamala, Texas A&M University-Kingsville;*

**Paper #146**

**Analysis of a Custom Constructed Wind Augmentation Device with 30-Degree Inlet Section to Improve Wind Power Generation**

*Ulan Dakeev, Texas A&M University-Kingsville;  
Farzin Heidari, Texas A&M University-Kingsville;  
Faruk Yildiz, Sam Houston State University;  
Bhavana Kashibhatla, Texas A&M University-Kingsville*

**Paper #160**

**The Value of Electricity Storage in the Presence of Renewable Energy Sources in the Future of Multi-Vector Energy Systems**

*Hossein Ameli, Imperial College London (UK);  
Meysam Qadrda, University of Cardiff (UK);  
Goran Strbac, University of Cardiff (UK);  
Mohammad Ameli, Shahid Beheshti University (IRAN); Saeid Moslehpoour, Hartford University*

**Paper #163**

**SWOT Analysis for Iran's Wind Farms**

*Akbar Adibfar, MAPNA Renewable Energies Co.*

**Paper #164**

**Short-Term Forecasting of Wind Power Generation by Adaptive Neural Networks**

*Hong Li, New York City College of Technology;  
Ali Setoodehnia, ECPI University*

**10:30–12:30pm Cypress 4**

**ENG 202: Topics in Electronics**

**Session Chairs: Dale Rowe**

(Brigham Young University)

# Daily Schedule – Monday

## **INVITED SPEAKER #159**

### **Using LIDAR and Animation to Develop Surveillance Strategies**

*Roger Ruggles, Lafayette College;  
Karen Ruggles, DeSales University*

## **Paper #008**

### **Exploring the Use of Nanoparticles to Modify the Surface Energy of Polyethylene (PE) Substrates**

*Rex Kanu, Purdue University;  
Thomas Spotts, Ball State University*

## **Paper #070**

### **Designing Stand-Alone Microgrid Hybrid Solar/Wind Energy Systems and Grid-Connected Smartgrid Hybrid Solar/Wind Energy Systems**

*Dominick Lauria, University of Hartford;  
Sarah Lamb, University of Hartford*

## **Paper #127**

### **Design Optimization of 10Gbps Optical Telecommunications Receivers**

*Akram Abu-aisheh, University of Hartford*

## **Paper #166**

### **Geometrical Determination of Maximum Power Point of a Photovoltaic Cell**

*Mehmet Goksu, Millersville University of Pennsylvania;  
Faruk Yildiz, Sam Houston State University*

## **10:30–12:30pm Magnolia A**

### **EDU 302: Topics in STEM and PLTW [part 1]**

#### **Session Chairs: Vigs Chandra**

*(Eastern Kentucky University)*

## **Abstract #011**

### **Separating Hardware from Software Approach to Ease Engineering Students' Work**

*Mohammed Abdallah, State University of New York*

## **Abstract #071**

### **Enrollment and Graduation Trends in Graduate Engineering Programs**

*Noureddine Bekhouche, Jacksonville State University*

# Daily Schedule – Monday

## **Abstract #104**

### **How SCME's Plug-and-Play MEMS Technology Programs Have Broadened STEM Curricula Worldwide**

*Barbara Lopez, Southwest Center for Microsystems Education at the University of New Mexico;  
Matthias Pleil, Southwest Center for Microsystems Education at the University of New Mexico*

## **Paper #140**

### **STEM Outreach Efforts for Urban Students**

*Otilia Popescu, Old Dominion University;  
Vukica Jovanovic, Old Dominion University;  
Jennifer Michaeli, Old Dominion University;  
Stacie Ringleb, Old Dominion University*

## **Paper #141**

### **University-Industry-Navy Collaboration in Development and Delivery of an Additive Manufacturing Short Course to Naval Personnel**

*Jennifer Michaeli, Old Dominion University;  
Justin Yates, Francis Marion University;  
Michael Polanco, Old Dominion University;  
Gug Sretsy, Applied Systems and Technology Transfer;  
Jack Scott, Applied Systems and Technology Transfer;  
Todd Coursey, US Navy Mid-Atlantic Regional Maintenance Center*

## **12:30–2:00pm Lunch Break and IAJC Executive Board Meeting**

## **2:00–3:45pm Cypress 1**

### **MFG 103: Construction—Bridges and Buildings**

**Session Chair: Ahmed Elsawy**  
(Tennessee Technological University)

## **Paper #001**

### **Preliminary Design of a Diagrid Tall Building**

*Mohammad Bhuiyan, West Virginia State University;  
Roberto Leon, Virginia Tech*

## **Paper #003**

### **Probabilistic Models for Critical Building Responses of High-Rise Buildings**

*Mohammad Bhuiyan, West Virginia State University;  
Roberto Leon, Virginia Tech*

# Daily Schedule – Monday

## Paper #093

### **A Comparison Between the Minimum Resolutions of Two Digital Image Correlation-Based Tools in Making Strain Measurements**

*Niranjan Desai, Purdue University Northwest; Christos Georgakis, Technical University of Denmark; Gregor Fischer, Technical University of Denmark*

## Paper #123

### **The Effects of Failure of Anchor Rods on the Performance of the Tower of the New Bay Bridge**

*Abolhassan Astaneh-Asl, University of California—Berkeley; Maryam Tabbakhha, University of California—Berkeley; Xin Qian, University of California—Berkeley*

## Paper #124

### **Pushover Analysis of the Tower of the New Self-Anchored Suspension Bay Bridge**

*Abolhassan Astaneh-Asl, University of California—Berkeley; Xin Qian, University of California—Berkeley*

## **2:00–3:45pm Cypress 2**

### **ITC 403: Cybersecurity and Computer Technology**

#### **Session Chair: Ulan Dakeev**

*(Texas A&M University—Kingsville)*

## Paper #020

### **Latency and Phase Transitions in Interconnection Networks with Unlimited Buffers**

*Lev Levitin, Boston University; Yelena Rykalova, Boston University*

## Paper #021

### **Phase Transitions in Interconnection Networks with Finite Buffers**

*Lev Levitin, Boston University; Yelena Rykalova, Boston University*

## Paper #040

### **Employing Link Analysis for the Improvement of Threat Intelligence Regarding Advanced Persistent Threats**

*Corey Holzer, Purdue University; Eric Dietz, Purdue University; Baijian Yang, Purdue University*

# Daily Schedule – Monday

## Paper #152

### **Information Security Risks Awareness**

### **Programs at K-12: Is This the Right Route?**

*Idong Mkpong-Ruffin, Faulkner University;*

*Sajid Raza, Walmart Stores, Inc.;*

*Syed Raza, Trenholm State Community College*

**2:00–3:45pm Cypress 3**

## **ENG 205: Topics in Automotive Technologies**

### **Session Chair: Kevin Dittman**

(Purdue University)

## Paper #010

### **Evaluating the Fidelity of a Scale Model**

### **Hexapod Motion Simulator**

*Christopher Lawrence, Indiana University Purdue University Indianapolis;*

*Andrew Borme, Indiana University Purdue University Indianapolis;*

*Pete Hylton, Indiana University Purdue University Indianapolis;*

## Paper #026

### **Gate Drive and Efficiency Analysis for a Silicon Carbide MOSFET-Based Electric Motor Drive**

*Todd Batzel, Pennsylvania State University-Altoona;*

*Taylor Leach, Pennsylvania State University-Altoona*

## Paper #109

### **Towards the Improvement of Highway-Rail Intersections with an Intelligent Grade Crossing System**

*Osileke Osipitan, New York State Department of Transportation*

## Abstract #168

### **Early Warning Defect Analysis and Reporting: A Need for Analysis and Reporting Improvement**

*Christopher Kluse, Bowling Green State University*

**2:00–3:45pm Cypress 4**

## **Workshop #1:**

### **Getting the Rubber to Meet the Road:**

### **Breaking Down Resistance to Lean**

(FREE—Preregistration is requested to help gauge attendance)

*Michelle Brodke, Bowling Green State University—Firelands*

# Daily Schedule – Monday

**2:00–3:45pm Magnolia A**

**EDU 303: Topics in STEM and PLTW [part 2]**

**Session Chair: Faruk Yildiz**

(Sam Houston State University)

**Paper #005**

**Understanding the Physics of Water Rockets  
Using Wireless Sensors**

*Eunice Yang, University of Pittsburgh at Johnstown;  
Brian Houston, University of Pittsburgh at Johnstown*

**Paper #009**

**Integrating Activities-, Project- and Problem-  
Based (APPB) Learning into Introductory  
Undergraduate Electronics Coursework**

*Vigyan (Vigs) Chandra, Eastern Kentucky University;  
George Reese, University of Illinois*

**Paper #012**

**Professional Development Opportunity for  
Electrical Engineering Technology Educators  
in Robotics Automation**

*Aleksandr Sergeyev, Michigan Tech;  
Nasser Alaraje, Michigan Tech*

**Paper #036**

**Underrepresented Minority Students'  
Progression to Graduate School in Technology**

*Shirl Donaldson, The University of Texas at Tyler;  
Kathryne Newton, Purdue University*

**Paper #061**

**Career and Technical Education and Its  
Relation to Engineering Technology Pathways  
in Mechatronics**

*Vukica Jovanovic, Old Dominion University;  
Otilia Popescu, Old Dominion University;  
Ana Djuric, Wayne State University;  
Petros Katsioloudis, Old Dominion University;  
Thomas Stout, Tidewater Community College;  
Roger Lagesse, Granby High School*

**3:45–4:00pm**

**Refreshment Break**

# Daily Schedule – Monday

## 4:00–6:00pm Cypress 1

### MFG 104: Topics in Manufacturing I

#### Session Chair: Mehmet Goksu

(Millersville University)

#### Abstract #032

#### **Smart CNC Metal Machining: Solid Modeling Techniques for Advanced CAM High-Speed Machining of Mechanical Components**

*Todd Waggoner, Bowling Green State University*

#### Abstract #053

#### **Two New Sequencing Rules for the Non-Preemptive Single-Machine Scheduling Problem**

*Mohsen Hamidi, Utah Valley University*

#### Paper #075

#### **American Reshoring: A Model for Italian Economic Development**

*Patricia Polastri, Texas A&M University—Kingsville; Antonella Viggiano, Luis Guido Carli University*

#### Paper #110

#### **Proposed Optimization of a Pin Joint Machining and Assembly Process**

*Dana Ingalsbe, Jacksonville State University; Chris Marker, Jacksonville State University*

#### Abstract #149

#### **Surface Roughness Quality Improvement using Real-Time Machine Vision**

*Ravindra Thamma, Central Connecticut State University; Vishal Dhagat, University of Connecticut*

## 4:00–6:00pm Cypress 2

### ITC 404: CAD and 3D Printing

#### Session Chair: Jean Jiang

(Purdue University North Central)

#### Abstract #112

#### **How to Heal a Broken Heart: 3D Printing as the Future of Cardiology**

*Whitney Winders, Brigham Young University; Dale Rowe, Brigham Young University*

# Daily Schedule – Monday

## **Abstract #128**

### **Immersive 3D Worlds: Creating Virtual Reality Spaces**

*Drew Graham, Bemidji State University;  
Lyle Meulebroeck, Bemidji State University*

## **Abstract #129**

### **Utilization of 3D Printing Technology in a University Classroom Setting**

*Lyle Meulebroeck, Bemidji State University;  
Drew Graham, Bemidji State University*

## **Abstract #171**

### **Anatomically Scalable Transfemoral Knee Design**

*Tyagi Ramakrishnan, University of South Florida;  
Kyle Reed, University of South Florida*

## **Abstract #136**

### **Teaching Outside the Classroom: Collaboration in Service Learning**

*Timothy Brockman, Bemidji State University;  
David Towley, Bemidji State University*

## **4:00–6:00pm Cypress 3**

### **ENG 206: Topics in Robotics**

#### **Session Chair: Suzanne Keilson**

*(Loyola University Maryland)*

## **Paper #033**

### **Wireless Control of a Robotic Arm Using 3D Motion Tracking Sensors and Artificial Neural Networks**

*Fernando Rios, Georgia Southern University;  
Imani Augusma, Georgia Southern University;  
Rocio Alba-Flores, Georgia Southern University*

## **Paper #048**

### **Statistical Sampling Strategy for Pipeline CCTV Inspection**

*Myungjin Chae, Central Connecticut State University*

## **Abstract #052**

### **Evaluation of Intelligent Controllers for Improving Elevator Energy Efficiency**

*Muhammad Hasan, Texas A&M International University;  
Rainer Fink, Texas A&M University;  
Muthuvel Suyambu, Texas A&M University;  
Manoj Baskaran, Texas A&M University*

# Daily Schedule – Monday

## 4:00–6:00pm Cypress 4

### **Workshop #2:**

### **Understanding and Teaching Statistical Process Control. A Hands-on Approach to Preparing Your Students for High-Tech Manufacturing**

(FREE—Preregistration is requested to help gauge attendance)

*Barbara Lopez and Matthias Pleil, Southwest Center for Microsystems Education at the University of New Mexico*

## 4:00–6:00pm Magnolia A

### **EDU 304: Topics in Education—Robotics**

#### **Session Chair: Shirl Donaldson**

(University of Texas at Tyler)

#### **Paper #013**

#### **Teaching Critical Skills in Robotics Automation: iR-Vision 2D Course in Robotic Vision Systems Development and Implementation**

*Aleksandr Sergeyev, Michigan Tech;*

*Siddharth Parmar, Michigan Tech;*

*Nasser Alaraje, Michigan Tech*

#### **Paper #063**

#### **Integrating Cobots in Engineering Technology Education**

*Ana Djuric, Wayne State University;*

*Vukica Jovanovic, Old Dominion University;*

*Tatiana Goris, Purdue University;*

*Otilia Popescu, Old Dominion University*

#### **Paper #101**

#### **Investigating Effects of Stereo Baseline Distance on Accuracy of 3D Projection for Industrial Robotic Applications**

*Wutthigrai Boonsuk, Eastern Illinois University*

#### **Abstract #144**

#### **Interactive Robot Applications in K-16 Education: A Review of Cases and Challenges**

*Jin Zhu, University of Northern Iowa*

#### **Paper #148**

#### **Integrating Open-Source Resources in Robotics Education**

*Haoyu Wang, Central Connecticut State University;*

*Biao Zhang, ABB Inc., US Corporate Research;*

*Paul Resetarits, Central Connecticut State University*

# Daily Schedule – Tuesday

Tuesday, November 8, 2016

**8:30–10:15am Cypress 1**

## **MFG 105: Topics in Manufacturing II**

**Session Chair: Sean June**  
(Western Carolina University)

### **INVITED SPEAKER #167**

### **OSHA Data Initiative's (ODI) Meaning and Findings**

*Scott Arias, Eastern Kentucky University*

### **Abstract #067**

### **Tuning of Cascade Control Structures Subject to Process Constraints**

*Vassilios Tzouanas, University of Houston-Downtown*

### **Abstract #078**

### **A Novel RFID Tag Antenna for an Intelligent Library System**

*Deon Lucien, Georgia Southern University; Sungkyun Lim, Georgia Southern University*

### **Abstract #097**

### **Nanomanufacturing Utilizing the Triple-Helix Concept for Workforce Development**

*Alton Kornegay, North Carolina A&T State University; Bankole Fasanya, Laulima Government Solutions*

### **Paper #126**

### **Optimizing Thermoforming of High-Impact Polystyrene (HIPS) Trays by Design-of-Experiments (DOE) Methodologies**

*Vishal Dhagat, University of Connecticut Storrs; Ravindra Thamma, Central Connecticut State University*

**8:30–10:15am Cypress 2**

## **ITC 405: Topics in Program Accreditation**

**Session Chair: Eunice Yang**  
(University of Pittsburgh Johnstown)

# Daily Schedule – Tuesday

## Paper #086

### **An Optimal Mapping Framework for ABET Criteria 3 (a-k) Student Outcomes into the Newly Proposed (1-7) Student Outcomes**

*Rami Haddad, Georgia Southern University;  
Youakim Kalaani, Georgia Southern University;  
Adel El Shahat, Georgia Southern University*

## Paper #119

### **A Systematic Approach to Pursue ABET Accreditation**

*Shuju Wu, Central Connecticut State University;  
Xiaobing Hou, Central Connecticut State University*

## Paper #120

### **An Accreditation Assessment Management System**

*Xiaobing Hou, Central Connecticut State University;  
Shuju Wu, Central Connecticut State University*

## Paper #121

### **Do Certifications Make a Difference with the Recruitment of Graduate Students for Industrial Management Programs?**

*Mark Miller, The University of Texas at Tyler;  
Shirl Donaldson, The University of Texas at Tyler*

## **8:30–10:15am Cypress 3**

### **ENG 207: Wastewater and Properties of Fluids**

#### **Session Chair: Sanjay Tewari**

(Louisiana Tech University)

## Paper #004

### **Study of the Role of Adhesive Forces During Liquid-Mediated Contacts Separation**

*Prabin Dhital, Minnesota State University—Mankato;  
Shaobiao Cai, Minnesota State University—Mankato*

## Paper #045

### **Modelling Fluid Flow Through a Flexible Tube**

*Abdessamad Mehdari, Mohammed V University;  
Mohamed Hasnaoui, Royal Air Force School;  
Mohamed Agouzoul, Mohammed V University*

## Abstract #170

### **Emerging Water Contaminants: Assessment of Sources, Associated Risk and Options for Treatment Methods**

*Sanjay Tewari, Louisiana Tech University;  
Ashique Ahmed, Louisiana Tech University*

# Daily Schedule – Tuesday

**8:30–10:15am Cypress 4**

## **EDU 307: Topics in Education—Simulations**

### **Session Chair: Mikhail Moshkov**

(King Abdullah University of Science and Technology)

#### **Paper #057**

#### **Real-Time Data Collection and Processing in Open-Loop and Closed-Loop Systems**

*Jean Jiang, Purdue University Northwest;  
Li Tan, Purdue University Northwest*

#### **Paper #062**

#### **Low-Cost Solutions for Wireless Communication Systems for Undergraduate Engineering Technology Students**

*Otilia Popescu, Old Dominion University;  
Vukica Jovanovic, Old Dominion University;  
Ana Djuric, Wayne State University*

#### **Paper #132**

#### **BioRubeBot: A Multi-Discipline Approach to Capstone Projects in Biology and Computer Science**

*Adam Lewis, Athens State University;  
Sara Cline, Athens State University'  
Leigh Hester, Athens State University*

#### **Abstract #147**

#### **Integrated Laboratory Testing and FEM-Simulation of Materials in Teaching and Research**

*Mekonnen Tesfay Tesfu, Baden-Wuerttemberg Cooperative State University (GERMANY)*

#### **Paper #162**

#### **Cognitive Training Programs with EEG Headset**

*Zhipeng Huang, Purdue University Northwest;  
Yingjie Li, Shanghai University;  
Wanlin Dong, Purdue University Northwest;  
Wenxi Li, Purdue University Northwest;  
Xiaoli Yang, Purdue University Northwest*

**8:30–10:15am Magnolia A**

## **EDU 305: Topics in Education—Capstone Courses**

### **Session Chair: Edie Schmidt**

(Purdue University)

# Daily Schedule – Tuesday

## Paper #002

### **Capstone Design Course: Evaluation of Outcomes and Senior Design Projects**

*Mohan Devgun, State University of New York College at Buffalo;*

*David Kukulka, State University of New York College at Buffalo*

## Paper #025

### **Students' Reflections in an Engineering Technology Capstone Course: Technical, Team Formation, and Communication Issues, Dealing with Ambiguity**

*Anne Lucietto, Purdue University;*

*Sergey Dubikovsky, Purdue University*

## Abstract #041

### **Incorporating Descriptive Simulation of Integrated Manufacturing Systems to an Engineering Technology Capstone Course**

*Yuqiu You, Ohio University;*

*Neil Littell, Ohio University*

## Paper #080

### **Combining Engineering and Engineering Technology Programs into a Single Capstone Design Sequence**

*Blake Stringer, Kent State University;*

*Maureen McFarland, Kent State University*

## Paper #117

### **New Capstone Design Course Combining Architectural and Engineering Aspects of Building Design**

*Abolhassan Astaneh-Asl, University of California Berkeley;*

*Gary Black, University of California Berkeley*

**10:15–10:30am**

**Refreshment Break**

**10:30–12:30pm Cypress 1**

**MFG 106: Construction—Concrete and Sand**

**Session Chair: Ravindra Thamma**

(Central Connecticut State University)

# Daily Schedule – Tuesday

## Paper #051

### **Thermal Performance of a Recycled Aggregate Utilizing Building Energy Simulation Programs**

*Thomas Nicholas, University of North Carolina at Charlotte;*

*Tara Cavalline, University of North Carolina at Charlotte;*

*Dixie Johnson, University of North Carolina at Charlotte;*

*Morgan Laney, University of North Carolina at Charlotte*

## Abstract #064

### **Sugarcane Fiber-Reinforced Bricks as a Sustainable Construction Material**

*Christian Bock-Hyeng, North Carolina A&T State University;*

*Andrea Ofori-Boadu, North Carolina A&T State University;*

*Emmanuel Yamb-Bell, The University of Bamenda;*

*Musibau Shofoluwe, North Carolina A&T State University*

## Paper #098

### **Concrete with Enhanced Ductility Using Structural Microfibers**

*Shane Palmquist, Western Kentucky University;*

*Ramyasree Annam, Western Kentucky University*

## Paper #115

### **Epistemic Uncertainty Effects on Resistance Factors Calibrated from FHWA Drilled Shafts in Sands Static Top-Down Tests**

*Jiliang Li, Purdue University Northwest;*

*Jinyuan Zhai, The University of Akron;*

*Li Tan, Purdue University Northwest*

**10:30–12:30pm Cypress 2**

## **ITC 406: Topics in Information Technology**

### **Session Chair: Lev Levitin**

*(Boston University)*

## Paper #019

### **Social Media and Its Impact on Quality of Communication Management**

*Paul Thomas, Purdue University;*

*Kevin Dittman, Purdue University*

# Daily Schedule – Tuesday

## Paper #054

### **Writing for Publication**

*Marilyn Dyrud, Oregon Institute of Technology*

## Abstract #085

### **How Does Social Media Marketing Impact Orangeburg County's Economy through Tourism?**

*C'Nell Boone, Claflin University;  
Emily Crawford, Claflin University*

## Paper #125

### **Identification and Control of HIV Drug Therapy Using Fuzzy Systems**

*Samir Talssi, University Hassan II (MOROCCO);  
Noura Yousfi, University Hassan II (MOROCCO)*

## **10:30–12:30pm Cypress 3**

**No presentations scheduled in this time slot  
for this room.**

## **10:30–12:30pm Cypress 4**

**No presentations scheduled in this time slot  
for this room.**

## **10:30–12:30pm Magnolia A**

### **EDU 306: Topics in Curriculum Development and Teaching II**

**Session Chair: Matthias Pleil**  
(University of New Mexico)

## Abstract #024

### **Cloud-Based Applications in Engineering Drawing Education**

*Serdar Tumkor, University of Pittsburgh at  
Johnstown;*

## Paper #056

### **Effective Integration of Advanced Mobile Technology for Course Delivery in Information Technology Programs**

*Bilquis Ferdousi, Eastern Michigan University*

# Daily Schedule – Tuesday

## Paper #072

### **Design of Voice Control Interface for a Microwave Oven**

*Suzanne Keilson, Loyola University*

## Paper #103

### **Quality for Manufacturing: Integrating a Flipped Classroom Model with a Project-Based Approach**

*Shirl Donaldson, The University of Texas at Tyler; Paul McPherson, Purdue University*

**12:30pm Conference Program Ends**

---

# Authors by Page Number

Abdallah, Mohammed—20  
Abu-Aisheh, Akram—14, 20  
Adibfar, Akbar—19  
Agouzoul, Mohamed—29  
Ahmed, Ashique—29  
Alaraje, Nasser—24, 27  
Alba-Flores, Rocio—26  
Al-Deen Almousa, Salah—14  
Ameli, Ali—16  
Ameli, Hossein—19  
Ameli, Mohammad—16, 19  
Aminian, Farzan—17  
Aminian, Mehran—17  
Annam, Ramyasree—32  
Arias, Scott—28  
Astaneh-Asl, Abolhassan—22, 31  
Augusma, Imani—26  
Baskaran, Manoj—26  
Batt, Nicholas—16  
Batzel, Todd—23  
Bekouche, Noureddine—20  
Bhuiyan, Mohammad—21  
Bijapur, Mohammad—19  
Black, Gary—31  
Bock-Hyeng, Christian—32  
Boone, C’Nell—33  
Boonsuk, Wutthigrai—27  
Borme, Andrew—23  
Brockman, Timothy—26  
Brodke, Michelle—13, 23  
Brown, Fredericka—16  
Cai, Shaobiao—29  
Cavalline, Tara—32  
Chae, Myungjin—26  
Chandra, Vigyan (Vigs)—24  
Cheney, Austin—18  
Coogler, Keith—14  
Coursey, Todd—21  
Craig, Colby—18  
Crawford, Emily—33  
Cunha, Sarah—14  
Czuchry, Andrew Sr.—13  
Czuchry, Andrew Jr.—13  
Dakeev, Ulan—19  
Desai, Niranjan—22  
Devgun, Mohan—31  
Dhagat, Vishal—25, 28  
Dhital, Prabin—29  
Dietz, Eric—18, 22  
Dittman, Kevin—32  
Djuric, Ana—24, 27, 30  
Doggett, Mark—17  
Donaldson, Shirl—13, 18, 24, 29, 34  
Dong, Wanlin—30  
Dubikovsky, Sergey—31  
Dyrud, Marilyn—33  
El Shahat, Adel—15, 29  
Elsawy, Ahmed—15  
Esmaeili, Mohammadjafar—14  
Eydgahi, Ali—14

---

---

Fasanya, Bankole—28  
Ferdousi, Bilquis—33  
Fink, Rainer—26  
Fischer, Gregor—22  
Frazier, Nathan—15  
Georgakis, Christos—22  
Godbey, Jess—16  
Goksu, Mehmet—20  
Goris, Tatiana—18, 27  
Graham, Drew—26  
Haddad, Rami—15, 29  
Hamidi, Mohsen—25  
Hartman, Sara—16  
Hasan, Muhammad—26  
Hasan, Omar—14  
Hasnaoui, Mohamed—29  
Hawley, Harmonie—16  
Heidari, Farzin—19  
Hoffman, Jason—16  
Holzer, Corey—22  
Hou, Xiaobing—29  
Houston, Brian—24  
Huang, Zhipeng—30  
Hylton, Pete—23  
Ingalsbe, Dana—16, 25  
Israr, Toqueer—17  
Jahan, Muhammad—17  
Jetley, Sudershan—14  
Jiang, Jean—30  
Johnson, Dixie—32  
Jovanovic, Vukica—21, 24, 27, 30  
June, Sean—16  
Kalaani, Youakim—15, 29  
Kanu, Rex—20  
Kashibhatla, Bhavana—19  
Katsioloudis, Petros—24  
Kaul, Sudhir—16  
Keilson, Suzanne—34  
Khoury, Sam—17  
Kirby, Adam—18  
Kluse, Christopher—23  
Kornegay, Alton—28  
Krauter, Stefan—16  
Kronland, Michael—15  
Kukulka, David—31  
Kuruppalil, Zaki—13  
Lagresse, Roger—24  
Lamb, Sarah—20  
Lane, Robert—15  
Laney, Morgan—32  
Lauria, Dominick—20  
Lawrence, Christopher—23  
Leach, Taylor—23  
Leak, Nicholas—15  
Lee, Yoonill—13  
Leon, Roberto—21  
Levitin, Lev—22  
Lewis, Kendal—15  
Li, Hong—19  
Li, Jiliang—32  
Li, Wenxi—30  
Li, Yingjie—30  
Lim, Sungkyun—28  
Littell, Neil—16, 31

---

---

Litwhiler, Dale—16  
Lopez, Barbara—21, 27  
Lovelace, Raquel—16  
Lucien, Deon—28  
Lucietto, Anne—31  
Marbut, Terry—16  
Marker, Chris—25  
McFarland, Maureen—31  
McKirahan, James—18  
McPherson, Paul—34  
Mehdari, Abdessamad—29  
Meulebroeck, Lyle—26  
Michaeli, Jennifer—21  
Miller, Mark—29  
Mkpong-Ruffin, Idong—23  
Moshkov, Mikhail—17  
Moslehpoour, Saeid—16, 19  
Myers, Todd—13  
Newton, Kathryne—13, 24  
Ngwira, Steve—15  
Nicholas, Thomas—32  
Ofori-Boadu, Andrea—32  
Osipitan, Osileke—23  
Palmquist, Shane—32  
Parmar, Siddharth—27  
Pleil, Matthias—21, 27  
Polanco, Michael—21  
Polastri, Patricia—25  
Popescu, Otilia—21, 24, 27, 30  
Qadran, Meysam—19  
Qian, Xin—22  
Rahman, Mohammad—18  
Rajai, Mark—18  
Ramakrishnan, Tyagi—26  
Randall, Joseph—15  
Raza, Sajid—23  
Raza, Syed—23  
Reed, Kyle—26  
Reese, George—24  
Resetarits, Paul—27  
Ringleb, Stacie—21  
Rios, Fernando—26  
Rowe, Dale—14, 25  
Ruggles, Karen—20  
Ruggles, Roger—20  
Ryan, Kelly—16  
Rykalova, Yelena—22  
Sadat-Hossieny, Morteza—17  
Schmidt, Edie—18  
Scott, Jack—21  
Sergeyev, Aleksandr—18, 24, 27  
Sergeyeva, Irina—18  
Setoodehnia, Ali—19  
Shofoluwe, Musibau—32  
Shrestha, Binisha—14  
Spotts, Thomas—20  
Sretsy, Gug—21  
Stout, Thomas—24  
Strbac, Goran—19  
Stringer, Blake—31  
Suyambu, Muthuvel—26  
Tabbakhha, Maryam—22  
Talssi, Samir—30, 33  
Tan, Li—30, 32

---

---

Tesfay Tesfu, Mekonnen—30  
Thamma, Ravindra—18, 25, 28  
Thomas, Paul—32  
Torres, Mauricio—17  
Towley, David—26  
Tumkor, Serdar—33  
Tzouanas, Vassilios—28  
Ulrich, Doug—15  
Varmazani, Shohreh—17  
Viggiano, Antonella—25  
Waggoner, Todd—25  
Wang, Haoyu—27  
Winders, Whitney—25  
Womack, Cory—15  
Wu, Shuju—29  
Yamb-Bell, Emmanuel—32  
Yanamala, Sumanth—19  
Yang, Baijian—22  
Yang, Eunice—24  
Yang, Xiaoli—30  
Yates, Justin—21  
Yildiz, Faruk—14, 15, 19, 20  
You, Yuqiu—31  
Yousfi, Noura—30, 33  
Zeng, Zhen—18  
Zhai, Jinyuan—32  
Zhang, Biao—27  
Zhu, Jin—27

---

# Notes

**Embassy Suites Orlando**  
**4955 Kyngs Heath Road**  
**Kissimmee, FL 34746**  
**Meeting Rooms are**  
**MAGNOLIA BALLROOM "A"**  
**CYPRESS 1-4**

