

# ATMAE 2017 Conference Schedule-Blocks



**Sessions last 22 ½ minutes each and are scheduled in a 45 minute block**  
**\*Schedule Subject to Change**

| <b>Thursday, November 2</b>  |  |                           |
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| <b>8:00 AM – 8:45 AM</b>   |  |                           |
| Meeting the Future Educational Needs of Manufacturing Today  | Mr. Jake Hildebrant, Murray State University<br>Mr. Sidney Martin, Murray State University   | Administration            |
| Practice What You Teach  | Dr. Randell Peters, Indiana State University<br>Dr. Michael Hayden, Indiana State University   | Administration            |
| Success factors for engineering technology transfers   | Dr. Gretchen Mosher, Iowa State University   | Administration            |
| Enabling a 100% Online Certificate Program in Quality: Benefits and Challenges                                 | Dr. John Earshen, SUNY/Buffalo State   | Administration            |
| Information-Seeking Behaviors of Construction Professionals  | Dr. James Jones, Ball State University   | Construction              |
| The Effect of Swine-Waste Biochar on the Early-Age Setting and Compressive Strength of Cement Pastes           | Dr. Andrea Ofori-Boadu, North Carolina A & T State University<br>Dr. Musibau Shofoluwe, North Carolina A & T State University<br>Mr. Frederick Aryeetey, North Carolina A & T State University | Construction              |
| Smart Home: Privacy and Cyber Protection   | Dr. Preet Gill, Lawrence Technological University<br>Dr. Konnie Kustron, Eastern Michigan University   | EECT                      |
| Increasing the Efficiency of a Wind Turbine  | Dr. Faruk Yildiz, Sam Houston State University<br>Dr. Mehmet Goksu, Millersville University  | EECT                      |
| Customize the robotic end effector by CAD modeling and simulation  | Dr. Ni Wang, Eastern Kentucky University<br>Dr. Yuqiu You, Ohio Unviersity<br>Dr. Sanghyun Lee, Morehead State University  | EECT                      |
| Using Cognex Vision for Part ID and Analysis: Tutorials, Labs, and YouTube                                     | Mr. Michael Wiles, Millersville University<br>Mr. Nicholas Bozzelli, Millersville University<br>Dr. John Wright, Millersville University<br>Mr. Quentin Kilgore, Millersville                  | EECT                      |
| Introduction to the Johnson & Johnson Operating System   | Dr. David Hoffa, Johnson & Johnson   | Management                |
| Re-evaluating traditional paths to market for industrial products  | Dr. Rod Flanigan, University of Nebraska – Kearney<br>Dr. Jacob Bishop, University of Nebraska - Kearney   | Management                |
| Electric Guitar: Concept to Product  | Dr. Gary Mahoney, Berea College  | Teaching Innovations (TI) |
| Teaching Manufacturing and Sustainability in a Manufacturing Class with the U.S. Life Cycle Inventory Database | Dr. Mehmet Bahadir, Murray State University  | Teaching Innovations (TI) |

| <b>Thursday, November 2<br/>8:00 AM – 8:45 AM</b>   |   |                           |
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| Stacking credentials with industry partnerships and support   | Mr. Steve Williams, Utah State University<br>Mrs. Trina Nye, Utah State University<br>Dr. Trevor Robinson, Utah State University  | Teaching Innovations (TI) |
| Lean Gamification between Industry and University   | Dr. Ahmed Deif, California Polytechnic State University   | Teaching Innovations (TI) |
| <b>Thursday, November 2<br/>9:00 AM – 9:45 AM</b>   |   |                           |
| Comparing enrollment trends in ATMAE accredited programs to projected workforce demand  | Dr. Trevor Robinson, Utah State University<br>Dr. Richard Miller, Ohio Northern University<br>Dr. Feng Jao, Ohio Northern University  | Administration            |
| Curriculum and Instruction Basics for the Engineering Technology Educator   | Dr. Randell Peters, Indiana State University<br>Dr. Michael Hayden, Indiana State University  | Administration            |
| Developing a Successful Outcomes-Based Assessment Process   | Dr. James Jones, Ball State University<br>Dr. Tarek Mahfouz, Ball State University  | Administration            |
| Enterprise Risk Management: A Credible Approach for Integrating Risk Management into a Department of Technology                       | Dr. Jeenson Sheen, Norfolk State University<br>Mr. Charles Hunt, Norfolk State University<br>Dr. Munir Sulaiman ,Norfolk State University   | Administration            |
| Thermal Imaging and Infrared Applications in the Construction Industry  | Dr. Sherif Attallah, Ball State University<br>Dr. Tarek Mahfouz, Ball State University<br>Mr. Gary Birk, Ball State University  | Construction              |
| On Building Automation System (BAS) and High-Performance Green Buildings  | Dr. Shinming Shyu, Eastern Michigan University  | Construction              |
| Building Affordable Laboratory Equipment to Conduct Energy Experiments for Alternative Energy Classes                                 | Dr. Ulan Dakeev, Texas A&M University-Kingsville<br>Dr. Faruk Yildiz, Sam Houston State University  | EECT                      |
| Designing and Testing Sensors to Assist in Coral Restoration  | Dr. Gary Mahoney, Berea College   | EECT                      |
| Building a Solar Charged Electric Go-Kart   | Mr. Tanmay Pant, Eastern Illinois University<br>Dr. Peter Liu, Eastern Illinois University<br>Dr. Rendong Bai, Eastern Illinois University<br>Dr. Jerry Cloward, Eastern Illinois University      | EECT                      |
| Performance Analysis of Stand-Alone Hybrid Energy Systems in Rowan County KY  | Mr. Femi Oyeniran, Morehead State University<br>Mr. Saihiranmitra Mudiki, Morehead State University<br>Dr. Hans Chapman, Morehead State University<br>Dr. Nilesh Joshi, Morehead State University | EECT                      |
| Absolutely the best platform skills workshop ever: How to use your people presence and PowerPoint to reach Millennials and Homelander | Dr. Kimberley Gordon, University of Arkansas-Fort Smith   | Management                |
| Assessing Complexity as a Critical Factor in Managing Technology Projects   | Mr. Curtis Stock, Indiana State University  | Management                |
| Using Critical Thinking Question Matrices as a way to improve Affective Learning and Develop Critical Thinking Skills                 | Dr. Denise Gravitt, Western Illinois University   | Teaching Innovations (TI) |
| Universal Instructional Design and Delivery   | Dr. James Jones, Ball State University<br>Mr. Gary Birk, Ball State University<br>Mrs. Valerie Birk, Ball State University  | Teaching Innovations (TI) |

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| Virtual Scenario for Maintenance Training   | Mr. Adolfo Samudio Cano, Morehead State University<br>Dr. Jorge Ortega Moody, Morehead State University<br>Mr. Michael Edlin, Morehead State University<br>Mr. Saihiranmitra Mudiki, Morehead State University                        | Teaching Innovations (TI) |
| <b>Thursday, November 2<br/>9:00 AM – 9:45 AM</b>   |   |                           |
| Analysis of Students' Perspectives on Success Factors in Engineering Technology Majors  | Mr. Todd Alberts, Indiana State University  | Teaching Innovations (TI) |
| <b>Thursday, November 2<br/>10:15 AM – 11:00 AM</b>   |   |                           |
| LSS Applied to the Academic Department  | Dr. Randell Peters, Indiana State University<br>Dr. Michael Hayden, Indiana State University  | Administration            |
| Four Pillars and Proposed B.S. Manufacturing Engineering Technology Program at SUNY/Buffalo State   | Dr. Mohan Devgun, SUNY/Buffalo State  | Administration            |
| Stepping through degrees: a stackable credential model  | Dr. Trevor Robinson, Utah State University<br>Mr. Steve Williams, Utah State University<br>Mrs. Trina Nye, Utah State University  | Administration            |
| A Description Review of AACSB and ATMAE Accreditation Standards and their impact on faculty compensation  | Dr. Ahmed Zargari, Morehead State University<br>Dr. Sam Nataraj, Morehead State University<br>Ms. Fatemeh Davoudi Kakhki, Iowa State University   | Administration            |
| Scheduling Requirements for Civil versus Commercial Projects for CM Graduates   | Dr. John Reposo Jr., Eastern Michigan University  | Construction              |
| Thirsty For a Solution: Using Waste Plastic Bottles as an Additive to Enhance Asphalt Characteristics in Roadway Design                                     | Dr. Carol Lamb, Youngstown State University<br>Ms. Hayley Marchio, Youngstown State University  | Construction              |
| Multi-Layer Behavioral Motion for Complex Robotic Control with >10 DoF  | Mr. Kevin Wagner, Millersville University<br>Dr. John Wright, Millersville University   | EECT                      |
| Objective Evaluation of Mobile Robot Trajectories using Multiple View Geometry  | Dr. Sangho Park, Central Connecticut State University   | EECT                      |
| The Feasibility Study of Photovoltaics in Eastern Kentucky: The implementation of Microprocessor Powered Adaptive Photovoltaic Tracking Systems with MATLAB | Dr. Yuqiu You, Ohio University<br>Dr. Ni Wang, Eastern Kentucky University  | EECT                      |
| Enacting Active Compliant Visual Robotic Control: Setup, Configuration, and Applications  | Mr. Nicholas Bozzelli, Millersville University<br>Mr. Michael Wiles, Millersville University<br>Dr. John Wright, Millersville University<br>Mr. Kevin Wagner, Millersville University<br>Mr. Quentin Kilgore, Millersville University | EECT                      |
| Improvement of Supply Chain Transactions by Applying Lean   | Dr. Kanchan Das, East Carolina University<br>Dr. P. Rao, University of Northern Iowa  | Management                |
| Analysis of Efficiency Ratios and Profitability of US Food Processing Industry: An Empirical Study  | Dr. Nilesh Joshi, Morehead State University   | Management                |
| Using Escape Rooms to Teach Problem Solving in a Technology Management Classroom  | Dr. Sophia Scott, Southeast Missouri State University<br>Ms. Laura Gohn, Southeast Missouri State University  | Teaching Innovations (TI) |
| IoTNet: Enhancing Cyber Security Education  | Dr. David Hua, Ball State University<br>Dr. Edward Lazaros, Ball State University<br>Dr. Christopher Davison, Ball State University   | Teaching Innovations (TI) |
| A Virtual Environment for Learning Radiation Emergency Response   | Dr. HuiRu Shih, Jackson State University<br>Miss Kawandrea Spann, Jackson State University<br>Miss Ebony Davis, Jackson State University  | Teaching Innovations (TI) |

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| Development of an Interdisciplinary Cyber security Laboratory for Information Technology and Automation & Controls Engineering Technology Programs | Dr. William Clyburn, Indiana State University<br>Dr. Xiaolong Li, Indiana State University | Teaching Innovations (TI) |
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| <b>Thursday, November 2<br/>11:15 AM – 12:00 PM</b>  |  |                           |
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| Providing real world experiences for students through collaborations with local non-profit organizations   | Mrs. Janet Fick, Ball State University<br>Dr. James Jones, Ball State University<br>Ms. Jennifer Warrner, Ball State University                                | Administration            |
| learning: Models and Policies for Adoption and Integration   | Dr. Christopher Davison, Ball State University<br>Dr. David Hua, Ball State University<br>Dr. Edward Lazaros, Ball State University                            | Administration            |
| Use of the fuzzy Delphi Method for a qualification-based contractor selection in the construction of bulk processing facilities                      | Miss Nurhaizan Mohd Zainudin, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University  | Construction              |
| Using Explain Everything App for Creating Instructional Support Videos for Statics and Strengths of Materials Courses                                | Dr. Denise Gravitt, Western Illinois University  | Construction              |
| Synchronous and Asynchronous content delivery in online and hybrid courses.  | Dr. Alister McLeod, Indiana State University<br>Dr. Jim Smallwood, Indiana State University  | Distance Learning         |
| A Quantitative Evaluation of Students' Learning Outcomes in "Principles of Injury Prevention" Online Course  | Ms. Fatemeh Davoudi Kakhki, Iowa State University  | Distance Learning         |
| Cyber Security Testing Framework of Internet of Things Devices   | Dr. David Hua, Ball State University<br>Dr. Edward Lazaros, Ball State University<br>Dr. Christopher Davison, Ball State University                            | EECT                      |
| Factors Affect Students' Adoption of Digital Technology in Learning Process  | Dr. Bilquis Ferdousi, Eastern Michigan University  | EECT                      |
| Gardens & interactive elements in Hospital Pediatric Units: Parental Affective Perceptions   | Mrs. Gidaa Alamry, Eastern Michigan University   | EECTE                     |
| User acceptance of new technology in mandatory adoption scenario: Understanding the effect of users' internal traits and technology characteristics. | Mr. Varun Chhabra, Iowa State University<br>Dr. Shweta Chopra, Iowa State University<br>Dr. Prashant Rajan, Iowa State University                              | Management                |
| Implementation of KaiNexus tool for lean healthcare in Mary Greeley Medical Center: Employee perspective   | Miss Bhagyashri Parab, Iowa State University<br>Dr. Shweta Chopra, Iowa State University<br>Dr. Sree Nilakanta, Iowa State University                          | Management                |
| Implementation of Advanced Technology Training for the Manufacturing Workforce   | Dr. Farzin Heidari, Texas A&M University-Kingsville<br>Dr. Ulan Dakeev, Texas A&M University-Kingsville  | Manufacturing             |
| Emergency Preparedness Games   | Dr. HuiRu Shih, Jackson State University<br>Miss Kawandrea Spann, Jackson State University   | Teaching Innovations (TI) |
| Toward ABET Accreditation of Information Assurance and Cyber Defense Program: Process and Challenges ... A case Study at Eastern Michigan University | Prof. Munther Abualkibash, Eastern Michigan University<br>Prof. James Banfield, Eastern Michigan University<br>Dr. Suleiman Ashur, Eastern Michigan University | Teaching Innovations (TI) |
| From Handshakes to You're Hired: Incorporating Professionalism into the Curriculum   | Ms. Jennifer Warner, Ball State University   | Teaching Innovations (TI) |
| <b>Thursday, November 2<br/>1:15 PM – 2:00 PM</b>  |  |                           |
| The Accidental Leader: Transitioning from Technology Faculty to Administration   | Dr. Tarek Mahfouz, Ball State University<br>Dr. James Jones, Ball State University   | Administration            |
| TEACHING PROJECT LEAD THE WAY: TEACHERS' EXPERIENCE AND OPINIONS   | Ms. Melisa Stebbins, Pittsburg State University<br>Dr. Tatiana Goris, Pittsburg State University   | Administration            |

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| Utilization of Lean and Quality Management Systems in Civil Engineering and Construction Management                                 | Mr. Joseph Curd, Morehead State University  | Construction              |
| Effectiveness of Responsive Facade Systems in Improving Lighting Performance of Building  | Ms. Negar Heidari Matin, Eastern Michigan University<br>Prof. Ali Eydgahi, Eastern Michigan University<br>Prof. Shimming Shyu, Eastern Michigan University  | Construction              |
| Enabling a 100% Online Certificate Program in Quality: Preparation of Distance Instructors  | Dr. John Earshen, SUNY/Buffalo State  | Distance Learning         |
| <b>Thursday, November 2</b>   |   |                           |
| <b>1:15 PM – 2:00 PM</b>  |   |                           |
| Developing electronics curricula: Shifting from a traditional approach to project based distance approach                           | Dr. Trevor Robinson, Ohio Northern University   | Distance Learning         |
| Machine Ethics: Challenges and Importance for Educators   | Dr. Christopher Davison, Ball State University<br>Dr. David Hua, Ball State University<br>Dr. Edward Lazaros, Ball State University   | EECT                      |
| Evaluating the Factors in Fenestration Systems that Impact the Energy Consumption in Commercial High Rise Buildings in Saudi Arabia | Mrs. Nadia Arafah, Eastern Michigan University  | EECT                      |
| Experimental Projects to Demonstrate Reliability and Viability of Potential Renewable Energy Sources                                | Dr. Ulan Dakeev, Texas A&M University-Kingsville<br>Dr. Faruk Yildiz, Sam Houston State University<br>Dr. Mehmet Goksu, Millersville University   | EECT                      |
| Smart Home Technologies Enabled by Smart Grid   | Mr. Tajdar Ahmed, Eastern Illinois University<br>Dr. Rendong Bai, Eastern Illinois University<br>Dr. Wuthigrai Boonsuk, Eastern Illinois University<br>Dr. Peter Liu, Eastern Illinois University | EECT                      |
| Data Analysis Using Statistical Process Control: A Case for a Cold Rolled Coil  | Dr. Eli Aba, Pittsburg State University<br>Mr. Yuga Sunkarasetti, Pittsburg State University  | Management                |
| Digitization and automation of global supply chains for risk mitigation.  | Mr. Gaganpreet Hundal, Purdue University<br>Mr. Akshay Gupta, Purdue University   | Management                |
| Teaching Process Simulations in Manufacturing and Technology Programs   | Prof. Samuel Obi, San Jose State University   | Manufacturing             |
| Trends in Materials Topics and Pedagogy   | Dr. Randell Peters, Indiana State University<br>Dr. Michael Hayden, Indiana State University  | Manufacturing             |
| Teaching Critical Reading and Responsiveness for the Mobile Age   | Dr. Vigyan Chandra, Eastern Kentucky University<br>Dr. Ray Richardson, Eastern Kentucky University  | Teaching Innovations (TI) |
| Teaching 101: Foundations of Successful Instruction   | Dr. Kimberley Gordon, University of Arkansas, Forth Smith   | Teaching Innovations (TI) |
| <b>Thursday, November 2</b>   |   |                           |
| <b>2:15 PM – 3:00 PM</b>  |   |                           |
| Breaking Up Is Hard to Do: Leading through Unit Dissolution   | Dr. James Jones, Ball State University  | Administration            |
| A comparative analysis of faculty compensation between ATMAE, ABET, and AACSB accredited programs.                                  | Dr. Sam Nataraj, Morehead State University<br>Dr. Ahmad Zargari, Morehead State University<br>Ms. Fatemeh Davoudi Kahki, Iowa State University  | Administration            |
| Predicting Concrete Mechanical Properties via Computational Technique Approach  | Dr. Ahmed Mohamed, Indiana State University<br>Prof. Randell Peters, Indiana State University   | Construction              |
| Implementing a Student-Driven Solar Awareness Project   | Dr. Sherif Attallah, Ball State University<br>Dr. James Jones, Ball State University<br>Mrs. Janet Fick, Ball State University  | Construction              |
| Using Mobile Devices in Online Education  | Dr. Edward Lazaros, Ball State University<br>Dr. David Hua, Ball State University<br>Dr. Christopher Davison, Ball State University   | Distance Learning         |

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| A Study to Determine the Pros and Cons of Effective Use of Respondus Lockdown Monitor  | Dr. Cynthia Horta Martinez, University of Central Missouri<br>Mr. Reece Holcombe, University of Central Missouri  | Distance Learning         |
| Virtual commissioning for Industrial Automation  | Saihiranmitra Mudiki, Morehead State University<br>Dr. Jorge Alberto Ortega Moody, Morehead State University<br>Andres Salinas-Hernandez, Technological Institute of Queretaro          | EECT                      |
| Design of a Hybrid Solar Photovoltaic and Thermal Unit to Analyze Weather Effects on Solar Cell Power Output   | Dr. Faruk Yildiz, Sam Houston State University<br>Dr.Keith Coogler, Sam Houston State University  | EECT                      |
| <b>Thursday, November 2<br/>2:15 PM – 3:00 PM</b>  |   |                           |
| Performance Analysis for Time-of-Flight Ranging Sensor   | Mr .Aditya Patel, Eastern Illinois University<br>Mr. Seyedmasoud Naseri, Eastern Illinois University<br>Dr. Wutthigrai Boonsuk, Eastern Illinois University                             | EECT                      |
| Characterization of AuBe Ohmic Contact with the p-GaAs Base Used for Heterojunction Bipolar Transistors  | Mr.Jinming Wan, Morehead State University<br>Dr. Qingzhou Xu, Morehead State University   | EECT                      |
| Application of Statistical Process Control to a University Website   | Dr. Eli Aba, Pittsburg State University<br>Mr. Praveen Guraja, Pittsburg State University   | Management                |
| A decision analysis of a six monthly distribution program for food grains in Punjab  | Mr. Abhay Grover, Iowa State University<br>Dr. Shweta Chopra, Iowa State University<br>Dr. Caroline Krejci, Iowa State University   | Management                |
| The Future of Human/Machine Interaction: Collaborative Robotics  | Dr. William Clyburn, Indiana State University<br>Mr. Oscar Henriquez, Indiana State University  | Manufacturing             |
| What manufacturing and service businesses can learn from the airline industry!   | Dr. Merwan Mehta, East Carolina University  | Manufacturing             |
| Digitally Augmenting Curriculum Delivery   | Dr. Charles Weiss, Clemson University   | Teaching Innovations (TI) |
| Using strengths-based leadership in a senior capstone course   | Dr. Gretchen Mosher, Iowa State University  | Teaching Innovations (TI) |
| <b>Thursday, November 2<br/>3:30 PM – 4:15 PM</b>  |   |                           |
| In Case of Emergency: How Technology Programs Can Help Develop the Next Generation of Emergency Management Professionals   | Dr. Jessica Murphy, Jackson State University  | Administration            |
| Does offering certifications assist in the recruitment of undergraduate majors?  | Dr. Mark Miller, University of Texas at Tyler<br>Dr. Heshium Lawrence, University of Texas at Tyler   | Administration            |
| Building Performance and Human Health: A Study On Breathable Building Envelope and Intelligent Air Distribution Systems  | Na Han, Eastern Michigan University<br>Dr. Shinming Shyu, Eastern Michigan University   | Construction              |
| The Effect of Swine-Waste Biochar on the Flow and Water Absorption Characteristics of Cement Pastes  | Dr. Andrea Ofori-Boadu, North Carolina A & T State University<br>Dr. Musibau Shofoluwe, North Carolina A & T State University<br>Mr. Rico Kelley, North Carolina A & T State University | Construction              |
| 100% Online versus The Classroom: The Optimal Pedagogical Strategy as Demonstrated through Higher Statistically-Significant Grade Performance by Undergraduate and Graduate Students Studying University-Level Quality Systems Engineering | Prof. Joe Long, University of Central Missouri<br>Prof. Troy Ollison, University of Central Missouri<br>Prof. Jeff Ulmer, University of Central Missouri                                | Distance Learning         |
| Increasing Student Satisfaction in Online Courses  | Dr. Edward Lazaros, Ball State University   | Distance Learning         |
| Data Hiding Method in Digital Image Steganography  | Dr.Biju Bajracharya, Ball State University<br>Dr.David Hua, Ball State University   | EECT                      |

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|  | Dr.Christopher Davison, Ball State University   |                           |
| Optimization of a Solar Power Plant Using an Automated Control System  | Joseph Kelly, South Louisiana Community College<br>Gholam Massiha, University of Louisiana at Lafayette   | EECT                      |
| In-situ Integration of MEMS Switches to Realize Reconfigurable Multifunctional Antennas                                      | Dr .Qingzhou Xu, Morehead State University  | EECT                      |
| A Microsoft Kinect-based Gesture System to Enhance 3D Visual Communication in Virtual Collaboration                          | Dr. Yi-hsiang Chang, Illinois State University<br>Ms. Narda Hamilton, University of North Dakota<br>Dr. Dave Yearwood, University of North Dakota | Graphics                  |
| <b>Thursday, November 2</b><br><b>3:30 PM – 4:15 PM</b>  |   |                           |
| Discrete Event Simulation Curriculum Effectiveness   | Professor Paul Nutter, Ohio Northern University   | Manufacturing             |
| Applying Traction/Friction to Prevent Injuries via Slips, Trips, and Falls: Practical and Sustainable Solutions              | Mr. Charles Hunt, Norfolk State University<br>Dr. Jeenson Sheen, Norfolk State University<br>Dr. Munir Sulaiman, Norfolk State University         | Safety                    |
| Developing and Testing an Authentic Safety Assessment  | Mr. Wesley Chang, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University   | Safety                    |
| Successful USGBC LEED® Lab™ Implementation   | Dr. James Jones, Ball State University<br>Mrs. Janet Fick, Ball State University  | Teaching Innovations (TI) |
| Developing Effective Visual Representation Schemes to Improve and Measure Student Skills in Circuit Analysis Education       | Dr. Sangho Park, Central Connecticut State University   | Teaching Innovations (TI) |
| <b>Thursday, November 2</b><br><b>4:30 PM – 5:15 PM</b>  |   |                           |
| Funding and Finance Strategies for ATMAE Student Chapters  | Mr. Daniel Vazquez, Millersville University of Pennsylvania<br>Mr. Joseph Wright, Millersville University of Pennsylvania                         | Administration            |
| Putting Military Skills to Good Use: Veterans in STEM  | Dr. Ivan Mosley , Texas Southern University<br>Dr. Dominick Fazarro. University of Texas  | Administration            |
| Challenges and Lessons Learned for Smart City Development: A Guide to Success  | Dr. Tarek Mahfouz, Ball State University<br>Dr. James Jones, Ball State University<br>Dr. Sherif Attallah, Ball State University                  | Construction              |
| Knowledge Management in Construction Industry: A path Towards Complete Integration   | Mr. Saeed Bahidrah, Eastern Michigan University<br>Dr. Kasim Korkmaz, Eastern Michigan University   | Construction              |
| Recruiting Strategies for Online Programs  | Dr. Edward Lazaros, Ball State University<br>Dr. Christopher Davison, Ball State University<br>Dr. David Hua, Ball State University               | Distance Learning         |
| Stakeholder reactions to using e-learning as an alternative to snow days   | Dr. David Hua, Ball State University<br>Dr. Edward Lazaros, Ball State University<br>Dr. Christopher Davison, Ball State University               | Distance Learning         |
| Can application of a split protocol design improve Unsolicited Message transactions in the Distributed Network Protocol 3.0? | Dr. Patrick Appiah-Kubi, University of Maryland University College<br>Mr. Anand Richard, Saint Joseph's College                                   | EECT                      |
| Teaching Finite State Machines (FSMs) as Part of a Programmable Logic Control (PLC) Course                                   | Dr. Curtis Cohenour, Ohio University  | EECT                      |
| Strategies to Convert a Face-to-Face Color Management Course to an Online Format based on Perceptions of Students            | Dr. Devang Mehta, North Carolina A&T State University   | Graphics                  |
| Modeling and Improvement of Transmission   | Mr. Elliott Davis, Eastern Kentucky University<br>Dr. Ni Wang, Eastern Kentucky University  | Graphics                  |

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| Best Practices in Sustainable Supply Chain Management  | Dr. James Smallwood, Indiana State University   | Manufacturing             |
| Firefighter Fall Notification System: Design and Development                                 | Dr. David Hua, Ball State University<br>Dr. Christopher Davison, Ball State University  | Safety                    |
| Pragmatic use of technology for tracking kidnapped victims in Nigeria                        | Dr. Osileke Osipitan, New York State DOT<br>Dr. Biju Bajracharya, Ball State University   | Safety                    |
| Understanding technology barriers to help facilitate the Plant Breeding E-Learning in Africa | Mr. Levin Koshy, Iowa State University<br>Dr. Shweta Chopra, Iowa State University<br>Dr. Walter P. Suza, Iowa State University | Teaching Innovations (TI) |

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| <b>Thursday, November 2</b><br><b>4:30 PM – 5:15 PM</b>   |   |                           |
| First-Year Mechatronic Experiences: Towards Predicting Student Motivation   | Mr. John Haughery, Iowa State University<br>Dr. Raj Raman, Iowa State University<br>Dr. Steven Freeman, Iowa State University       | Teaching Innovations (TI) |
| Constructing the Future of Tomorrow: The Effect of Communication Style on Team Performance  | Dr. Sophia Scott, Southeast Missouri State University<br>Ms. Aarya Khanal, Southeast Missouri State University                      | Teaching Innovations (TI) |
| <b>Friday, November 3</b><br><b>8:00 AM – 8:45 AM</b>   |   |                           |
| Curricula of ATMAE Accredited University Programs: Building a Composite   | Dr. Mark Doggett, Western Kentucky University   | Administration            |
| Building Our Workforce for Tomorrow: The application of reverse curricular mapping to align employment expectations to education and training in the manufacturing sector | Dr. Ryan Walker, Mississippi State University   | Administration            |
| Perception of Women Working in the Construction Industry  | Ms. Jennifer Warrner, Ball State University<br>Dr. Sherif Attallah, Ball State University<br>Mr. Mike Mezo, Ball State University   | Construction              |
| BIM and Wearable Technologies: The Future of Construction Safety Management   | Dr. James Stein, Eastern Michigan University<br>Mr. Tolulope Borisade, Eastern Michigan University                                  | Construction              |
| Online Program Recruiting Strategy Success in the Midwest   | Dr. Edward Lazaros, Ball State University   | Distance Learning         |
| Virtualization: Implementation and Growth, Policies and Management  | Dr. Christopher Davison, Ball State University<br>Dr. Edward Lazaros, Ball State University<br>Dr. David Hua, Ball State University | Distance Learning         |
| Building a 20/20 view of the network: Open-source tools for mapping the system and traffic flow   | Dr. Vigyan Chandra, Eastern Kentucky University   | EECT                      |
| Harvesting Electromagnetic Radiation for Renewable Energy Use   | Ms. Erika Murray, Eastern Illinois University   | EECT                      |
| Employers' Expectations of Graduates Technical & Managerial Competencies in the Digital Graphics & Print Media Industry: A Study of New England States Region             | Dr. Naik Dharavath, Central Connecticut State University  | Graphics                  |
| Exploring the Benefits of Collaborative Design using Onshape: A Full-Cloud, 3D CAD That Runs on a Web Browser.  | Dr. Doug Koch, University of Central Missouri   | Graphics                  |
| Implementing 3D Printer to Produce Parts for Medical Applications   | Dr. Gholam Massiha, University of Louisiana at Lafayette  | Manufacturing             |
| Critical thinking and decision making integration into fluid power laboratory safety training   | Mr. Saxon Ryan, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University   | Safety                    |
| Industrial Safety Management: Hazard Identification and Risk Control  | Yu-Chun Chou, Texas A&M University - Kingsville   | Safety                    |



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| Automatic Identification Data Capture towards Robust Material Handling, a Key Learning Pedagogy for Warehousing Class  | Dr. Mohammed Ali, University of Texas at Tyler   | Teaching Innovations (TI) |
| A study to develop a four-week instructional workshop in Organizational Dynamics and a model for assessing and forecasting potential enrichment opportunities in technology leadership | Dr. Cynthia Horta-Martinez, University of Central Missouri<br>Dr. Ronald Woolsey, University of Central Missouri | Teaching Innovations (TI) |

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| <b>Friday, November 3</b><br><b>9:00 AM – 9:45 AM</b>   |   |                           |
| Project Managing Your Accreditation Process Successfully and Smoothly   | Ms. Pamela McGee, Minnesota State University  | Administration            |
| Community College and 4-Year School Partnerships  | Dr. Sharon Rouse, Mitchell Community College<br>Robert Chin, East Carolina University   | Administration            |
| Faculty Lead Student Competition: Designing and Building a Concrete Canoe   | Dr. Ahmed Mohamed, Indiana State University<br>Dr. Michael Williamson, Indiana State University   | Construction              |
| Distance Learning Technologies and the Virtual Classroom  | Dr. Christopher Davison, Ball State University<br>Dr. David Hua, Ball State University<br>Dr. Biju Bajracharya, Ball State University                     | Distance Learning         |
| <b>Friday, November 3</b><br><b>9:00 AM – 9:45 AM</b>   |   |                           |
| A Low Cost Control System Laboratory for Engineering Management and Technology (ETM) Students                     | Dr. Curtis Cohenour, Ohio University  | EECT                      |
| Using Device Level Ring Topology to Increase Network Reliability in Mission Critical Industrial Control Systems   | Dr. William Clyburn, Indiana State University<br>Mrs. Edith Wittenmyer, Indiana State University  | EECT                      |
| Gamification: Increase student engagement by gamifying your classroom   | Dr. Carl Blue, University of Southern Maine   | Graphics                  |
| Augmented Reality in the Classroom: Development of a stationary bicycle with virtual environment for new learners | Dr. Ulan Dakeev, Texas A&M University-Kingsville<br>Dr. Farzin Heidari, Texas A&M University-Kingsville<br>Dr. Faruk Yildiz, Sam Houston State University | Graphics                  |
| STUDY OF ALUMINUM OXIDE PARTICLES ON MILD STEEL BY HEAT TREATMENT PROCESS FOR ANTI CORROSION                      |   | Manufacturing             |
| Learning Requirements for Manufacturing Organizations   | Dr. Teresa Clark, Murray State University<br>Mr. Sidney Martin, III, Murray State University  | Manufacturing             |
| Predicting Elastic, Bulk, and Shear Modulus for Cement Clinkers under Varying Pressure Conditions.                | Dr. Ahmed Mohamed, Indiana State University<br>Dr. Ali Shahhosseini, Indiana State University   | Micro/<br>Nanotechnology  |
| Assessment of the Condition of Power-Take-Off Guarding Systems on Farm Machinery                                  | Miss Joy Sheldon, Indiana State University<br>Dr. Ernest Sheldon, Indiana State University  | Safety                    |
| Understanding human performance modes in occupational safety  | Mr. Daniel Borkowski, Indiana State University  | Safety                    |
| Measurement and use of critical thinking in a fluid power course  | Mr. Saxon Ryan, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University   | Teaching Innovations (TI) |
| Integrated STEM Assessment Design: Challenges and Opportunities   | Dr. Paul Asunda, Purdue University  | Teaching Innovations (TI) |
| <b>Friday, November 3</b>   |   |                           |

| <b>10:15 AM – 11:00 AM</b>   |  |                              |
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| A comparative study of 2-year technology programs accredited by ATMAE and ETAC of ABET   | Robert Chin, East Carolina University<br>Dr. Sharon Rouse, Mitchell Community College  | Administration               |
| Stronger together: How developing a joint ATMAE accreditation report is streamlining individual program operations             | Dr. Vigyan Chandra, Eastern Kentucky University<br>Dr. Dennis Field, Eastern Kentucky University<br>Dr. Ray Richardson, Eastern Kentucky University  | Administration               |
| Preparing Educators for the Online Platform  | Dr. Edward Lazaros, Ball State University<br>Dr. David Hua, Ball State University<br>Dr. Christopher Davison, Ball State University  | Distance Learning            |
| <b>Friday, November 3</b>  |  |                              |
| <b>10:15 AM – 11:00 AM</b>   |  |                              |
| Three-dimensional RGB-D Camera Sensor Usage for Industrial Robotics Applications   | Dr. Wutthigrai Boonsuk, Eastern Illinois University  | EECT                         |
| Satellite Tracking Control Implemented in Matlab®+   | Dr. Curtis Cohenour, Ohio University   | EECT                         |
| UX Design: A Sample Lesson Plan for the Graphics Curriculum  | Dr. Hope Carroll, UW-Stout   | Graphics                     |
| RepRap 2.0: Moving from Filament to Resin  | Dr. Yi-hsiang Chang, Illinois State University<br>Mr. William Walker, University of North Dakota<br>Mr. Zackary Vacura, University of North Dakota<br>Ms. Shae Bonifacio, University of North Dakota | Micro/<br>Nanotechnology     |
| Analysis of Blood Flow in an Aorta when cholesterol or fat content is present on the inside walls                              | Mr. Akhil Mankala, Texas A&M University Kingsville   | Micro/<br>Nanotechnology     |
| The Prediction and Classification of Occupational Incidents Severity Using Workers' Compensation Data                          | Dr. Steven Freeman, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University  | Safety                       |
| Air Quality and Noise Assessment in Confinement Livestock Facilities   | Mr. Alexander McDaniel, Indiana State University<br>Dr. Ernest Sheldon, Indiana State University   | Safety                       |
| The Preceptorial: Rigorous Small Group Educational Experiences Using Industry Partners   | Dr. Tim Obermier, University of Nebraska Kearney   | Teaching<br>Innovations (TI) |
| Addressing the Needs of Non-Math Majors in Math Intensive Courses  | Dr. Kerrie Taber, University of Arkansas Fort Smith  | Teaching<br>Innovations (TI) |
| <b>Friday, November 3</b>  |  |                              |
| <b>11:15 AM – 12:00 PM</b>   |  |                              |
| Academic Outreach and Student Recruitment Programs to Attract Youth to STEM Programs through Mobile Renewable Energy Education | Dr. Faruk Yildiz, Sam Houston State University   | Administration               |
| A Marketing/Recruiting Strategy for your STEM Program  | Dr. James Smallwood, Indiana State University  | Administration               |
| Accelerating Tomorrow's Robotic Applications through visualization: Experiential learning using Visionary Render               | Dr. Jesus Pagan, Ohio University   | EECT                         |
| Etcher Z-Axis Adjustment   | Mr. Lucas Poynter, Eastern Kentucky University<br>Dr. Ni Wang, Eastern Kentucky University<br>Dr. Vigs Chandra, Eastern Kentucky University  | EECT                         |
| Nano-Scale Level Simulation Model for Quasi-Static Laboratory Compression Test   | Dr. Ahmed Mohamed, Indiana State University<br>Prof. Randell Peters, Indiana State University  | Micro/Nanotechnology         |

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| Bulk Mechanically Alloyed Oxide Dispersed Copper for Solid-State Foaming                                       | Mr. Joseph Wright, Millersville University of Pennsylvania<br>Mr. Roger Welsh, Millersville University of Pennsylvania<br>Dr. Mark Atwater, Millersville University of Pennsylvania   | Micro/Nanotechnology      |
| Potential Health Impact of Radiofrequency Radiation on Humans  | Dr. Tatiana Goris, Pittsburgh State University<br>Dr. Eli Aba, Pittsburg State University<br>Ms. Janaki Koppolu, Pittsburg State University<br>Mrs. Marina Fligor, HANAU Health Group | Safety                    |
| Constructing the Open Road: Teaching with IoT and Ambient Internet Technologies                                | Dr. Vigyan Chandra, Eastern Kentucky University<br>Dr. Ni Wang, Eastern Kentucky University<br>Dr. Sergio Sgro, Eastern Kentucky University   | Teaching Innovations (TI) |
| Trends for getting Technology Teachers in the K-12 classrooms  | Mr. Darnell Austin, California State University, Fresno   | Teaching Innovations (TI) |
| Characterizing number of days away from work (DAFW) using information in workers' compensation claims database | Dr. Sai Ramaswamy, Wenatchee Valley College<br>Dr. Gretchen A. Mosher, Iowa State University  | Distant Learning          |
| Does geographic variation influence occupational injury trends? Evidence from research literature.             | Dr. Sai Ramaswamy, Wenatchee Valley College<br>Dr. Charles Schwab, Iowa State University<br>Dr. Gretchen Mosher, Iowa State University  |                           |