

## ATMAE 2018 Annual Conference

### **Topical Tracks**

#### **Administration**

Academic administration issues (i.e., program and curricula development, Course objectives, Outlining course competencies, Program funding, Grant-writing, recruitment, retention, outreach to industry, external relations & partnerships, accreditation, assessment, etc.) which are not limited to a specific topical area.

#### **Construction**

Proposals on a broad range of topics within the Construction & Construction Management area are welcome. Proposals involving technology, nanotechnology, and knowledge management in construction are particularly encouraged.

#### **Distance Learning**

Proposals on the following subtopics are particularly encouraged: Best practices in online teaching; strategies for developing online, hybrid and blended delivery formats; Technologies and innovations in distance education; Pedagogical aspects of online instruction; Instructor/student interaction in online classes; Online and distance advising; Workload of online instructors vs. F2F; Professional development in distance education; Assessment and Evaluation methods for distance courses and programs; Proctoring strategies; Managing growth in distance education; Training & support for distance instructors; Support for distance students; Budget and cost-benefit of distance education; Marketing distance courses and programs; Distance learning ethics and copyright; organizational issues in distance education; electronic portfolio in online courses; and learning management systems (LMS) features.

#### **Electricity, Electronics, Computer Technology & Energy Issues**

All subtopics within the EECT area are welcome. Proposals on the following subtopics are encouraged: Automation and Control Systems; Computer Applications and Networking; Cyber Security; Health Informatics, Electronic Military and Security Applications; Data Mining and Machine Learning; Robotics and Computer Vision; Simulation and Game Development; Databases and Data Warehouses; Bioinformatics, Software Technology, Optics and Optoelectronics; Embedded Systems, Sensor Networks, Devices and Semiconductors; Electromagnetics and Microwaves; Instrumentation & Measurements; Signal and Image Processing; Cloud Computing, Power Technology and Electronics; Alternative Energies, Technologies, and Energy Conservation.

#### **Graphics**

All graphics-based subject matter and technologies, including Computer Aided Design, the Graphic Communications, Technical Illustration, Digital and Graphic Imaging, Digital Photography, Rendering and Animation, Gaming, Multimedia, Web Publishing, Conventional and Digital Printing, 3D Printing and Prototyping, Color Management and Data Management and Variable Data Printing. Proposals on the following subtopics and research are particularly encouraged: Graphic Innovations, Student Mentoring, Grant-writing; Networking, Sustainability, Visual Communications, Connections & Innovations, Packaging, Data, Analytics, Visualization, Info-graphics, Interactivity, Mobile and New Media.

#### **Management**

This track includes all industry and/or technology management related issues, including topics in Project Management, Risk Management, Quality Management, Financial Management,

Operations Management, People Management, and Self-Management/Ethics. Other subject matter may include Technology Management Body of Knowledge, Technology Management vs. General Management, Manufacturing Industry Management, Service Industry Management, Leadership and Technology Portfolio Management.

### **Manufacturing**

This track includes all manufacturing-based subject matter and technologies. Proposals addressing the topic of Global Manufacturing/US competitiveness, Manufacturing Processes, Manufacturing Systems, Automation and Robotics, Industrial Mechanics, Welding Technology, Agile Manufacturing, Microtechnology and Nanotechnology Issues.

### **Micro/Nanotechnology**

Proposals on the following subtopics are particularly encouraged: Nanotechnology fabrication; nanomaterials; nanomaterial safety; microtechnology; product applications (sensors, biomedical, photovoltaics, flow membranes, etc.), academic program development, and external partnering. Nano-manufacturing, and the growing field of Direct Digital Manufacturing (DDM) Rapid Prototyping Processes such as FDM, Polyjet, or SLS are particularly encouraged.

### **Safety**

All topics within the broad field of occupational safety and health are welcome. Proposals focusing on the following topics and research are especially encouraged: Worker safety in diverse fields; Hazard identification, analysis, and communication; Innovative safety intervention in the classroom or workplace; Workplace security and violence prevention programs; Nanotechnology and microtechnology safety issues.

### **Teaching Innovations (TI)**

Implementing new pedagogy, technology, strategy, techniques in the classroom - How and why? What were the results? Proposals on the following subtopics are particularly encouraged: How to address industry needs; Delivering curriculum to meet industry partner needs; Training students for immediate entry to work force; Development of "Soft skills"; How to get industry involved in your class room; Involving industry so they hire your graduates, Adopting new technologies for use in the classroom as well as lab, Overview and presentations of effective use of trainers in a lab setting (what types of equipment are instructors using, which do they feel does the best job, etc.).

### **WITMAE (Women in Technology, Management and Applied Engineering)**

The WITMAE paper track will accept papers and presentations related to the challenges and solutions for women and under-represented persons in STEAM disciplines and industry. Topics relating to workplace challenges for under-represented persons or groups, teaching challenges for diverse student populations, recruitment challenges or success strategies for diverse worker and/or students in programs, etc. are highly suitable for this track.