

# *NAMRC/MSEC/ICM&P Conference 2017*

*June 4 - June 8, 2017 - Los Angeles, California*

## **Welcome to the International Manufacturing Research Conference 2017!**

The Viterbi School of Engineering at the University of Southern California (USC) is hosting the 2017 International Manufacturing Research Conference June 4 - 8, 2017. The conference is the foremost international forum for applied research and industrial applications in manufacturing and design and will combine the following three organizations:

- 45th North American Manufacturing Research Conference (NAMRC), sponsored by the North American Manufacturing Research Institution of the Society of Manufacturing Engineers (NAMRI/SME)
- American Society of Mechanical Engineers (ASME) International Manufacturing Science and Engineering Conference (MSEC 2017)
- Japan Society of Mechanical Engineers (JSME) International Conference on Materials Processing (ICM&P 2017), sponsored by the JSME and ASME

The University of Southern California, located in the heart of Los Angeles, is one of the world's leading private research universities. Los Angeles is a global center for arts, technology and international business. The greater Los Angeles area is the second-largest urban region in the United States containing about 13 million people. The USC campus is about 1 mile from Korea town, 2 miles to Little Tokyo and Chinatown, and a quick subway ride to Santa Monica beach. The weather in Los Angeles is mild all year and in June, the average low is 57°F and the average high is 78°F. The campus is conveniently located next to many forms of public transportation making it very easy to visit.

The conference will be held on the main campus and includes keynote and technical presentations, expert panels, student poster presentations, industry partner exhibitions, an early career forum, lab tours and a reception at The California Science Center located in Exposition Park, directly across the street from campus.

Mark your calendar now for June 4 - 8 and start planning your visit to Los Angeles in 2017!





The University of Southern California is a leading private research university located in Los Angeles – a global center for arts, technology and international business. It is home to the College of Letters, Arts and Sciences and 21 exceptional academic schools and units. USC's Health Sciences campus houses renowned specialized care and research in cancer, stem cell and regenerative medicine, orthopedics and sports medicine. The university is the largest private sector employer in the city of Los Angeles, responsible for \$5 billion annually in economic activity in the region.

### USC History

Los Angeles was a rough-and-tumble frontier town in the early 1870s, when a group of public-spirited citizens led by Judge Robert Maclay Widney first dreamed of establishing a university in the region. It took nearly a decade for this vision to become a reality, but in 1879 Widney formed a board of trustees and secured a donation of 308 lots of land from three prominent members of the community – Ozro W. Childs, a Protestant horticulturist; former California governor John G. Downey, an Irish-Catholic pharmacist and businessman; and Isaias W. Hellman, a German-Jewish banker and philanthropist. The gift provided land for a campus as well as a source of endowment, the seeds of financial support for the nascent institution.

When USC first opened its doors to 53 students and 10 teachers in 1880, the “city” still lacked paved streets, electric lights, telephones and a reliable fire alarm system. Today, USC is home to more than 41,000 students and nearly 3,800 full-time faculty and is located in the heart of one of the biggest metropolises in the world.

### At A Glance

- Located in Los Angeles, California
- 21 Schools and Academic Units
- 43,000 enrolled undergraduate, graduate and professional students
- 10,321 enrolled international students
- More than 375,000 living alumni in the Trojan Family
- \$4.7 billion endowment (as of June 30, 2015)



# 2017 ASME MANUFACTURING SCIENCE AND ENGINEERING CONFERENCE (MSEC2017)\*

## MSEC 2017 Technical Tracks and Symposia

### Track 1: Additive Manufacturing

1. Additive Manufacturing Process Improvements for Microstructure and Material Properties ([Call for Papers](#))
2. Additive Manufacturing Process Improvements for Part Functionality([Call for Papers](#))
3. Advances in Micro- and Nano-Additive Manufacturing ([Call for Papers](#))
4. Environmental Sustainability of Additive Manufacturing Processes ([Call for Papers](#))
5. Quality Assurance in Additive Manufacturing Systems: Integrated Sensing and Control ([Call for Papers](#))

### Track 2: Processes

1. Advances and Challenges in Joining and Assembly Processes ([Call for Papers](#))
2. Advances in Assisted / Augmented Manufacturing Processes([Call for Papers](#))
3. Advances in Modeling, Analysis, and Simulation of Manufacturing Processes ([Call for Papers](#))
4. Advances in Nontraditional manufacturing Processes ([Call for Papers](#))
5. Innovations in Materials Forming Processes ([Call for Papers](#))
6. Scalable Nanomanufacturing Processes ([Call for Papers](#))

### Track 3: Materials

1. Advances in Composites Manufacturing Processes([Call for Papers](#))
2. Advances in Materials and Manufacturing Processes for Energy Technologies ([Call for Papers](#))
3. Advances in Processing of Polymers and Polymer-Based Composites([Call for Papers](#))
4. Surface and Sub-Surface Functionalization ([Call for Papers](#))
5. Tribology of Material Removal/Deformation Processes and Machinery ([Call for Papers](#))

### Track 4: Manufacturing Equipment and Systems

1. Advances in Cyber Physical Systems, Stochastic Modeling, and Sensor Networks in Advanced Manufacturing ([Call for Papers](#))
2. Advances in Data Analytics and Engineering Modeling for Intelligent Manufacturing Systems([Call for Papers](#))
3. Advances in Data Management for the Digital Thread in Manufacturing ([Call for Papers](#))
4. Advances in Multi-axis and Multi-tasking Machine Tools([Call for Papers](#))
5. Cloud Manufacturing ([Call for Papers](#))
6. Competitive Manufacturing ([Call for Papers](#))

7. High Performance Computing and Artificial Intelligence for Cyber-Manufacturing ([Call for Papers](#))
8. Innovations in Equipment Design, Tooling, and Control/Automation to Enhance Manufacturing Processes ([Call for Papers](#))
9. Intelligent Maintenance Decision Making of Manufacturing Systems([Call for Papers](#))
10. Monitoring, Sensing, and Control for Intelligent Machining and Inspection([Call for Papers](#))
11. Nanomanufacturing of Multi-functional Systems ([Call for Papers](#))
12. Process-Machine-Interactions (PMI) in Advanced Manufacturing ([Call for Papers](#))

### **Track 5: Bio and Sustainable Manufacturing**

1. Advances in Analysis, Design, and Manufacturing of Biomedical Devices ([Call for Papers](#))
2. Advances in Biomanufacturing of Tissue-Engineered Scaffolds and Cellular/Tissue Constructs ([Call for Papers](#))
3. Manufacturing Process Characterization for System Level Sustainability Assessment ([Call for Papers](#))
4. Sustainability in Smart Manufacturing: Analysis, Metrics, and Modeling Tools ([Call for Papers](#))

### **Paper Submission**

Authors are encouraged to submit an abstract and full manuscript for review by **November 17, 2016** via the conference website. Final revised manuscripts must be submitted by **March 08, 2017**. The [copyright transfer form](#) must be filled out and the presenting author must [pre-register](#) by April 06, 2017 or the paper will be withdrawn from the conference. ***No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at <https://www.asme.org/events/msec>***

### **Presentation Only Option for Authors From Industry:**

Authors from industry who may not get permission to submit full papers are allowed to give presentation only at MSEC 2017. Those who are interested should submit an abstract.

Symposium organizers will assess the abstracts and discuss with the authors to determine if the materials they intend to present are suitable for the conference. ***This option is not available for authors from Academia.***