FEDSM 2020 CALL FOR PAPERS Submit Abstract.

Abstract Submission Deadline: December 2, 2019 (*firm deadline*)

The ASME Fluids Engineering Division (FED) cordially invites you to participate in their upcoming Fluids Engineering Division Summer Meeting (FEDSM) at the Rosen Shingle Creek in Orlando, Florida, USA. **FEDSM2020** solicits paper contributions from all areas of fluids mechanics, encompassing both fundamental and application. The tracks/topics covered during this event include, *but are not limited to*, the following:

1) Fluid Applications & Systems (FASTC) Track

Topic 1-1	Fluid Machinery Symposium	Topic 1-9	Multiphase Flow Applications
Topic 1-2	Pumping Machinery Symposium	Topic 1-10	Propulsion
Topic 1-3	Atmospheric and Oceanic Flows	Topic 1-11	Rotating Machinery / Turbomachinery
Topic 1-4	Automotive Flows	Topic 1-12	Pipeline Transport in the Petroleum, Oil, and Gas Industry from Exploration to Delivery
Topic 1-5	Combustion		
Topic 1-6	Environmental Flows	Topic 1-13	FAS Poster Presentations
Topic 1-7	Industrial Fluid Mechanics	Topic 1-14	FAS Graduate Student Scholarship Competition
Topic 1-8	Fluid Power Systems		

2) Fluid Measurement & Instrumentation (FMITC Track

Topic 2-1	Fluid Measurement and Instrumentation	Topic 2-7	Data Processing / Algorithms in Fluid Measurements
Topic 2-2	Noninvasive Measurements in Single and Multiphase Flows	Topic 2-8	Experimental Facilities in Fluid Mechanics
		Topic 2-9	FMI Poster Presentation
Topic 2-3	Fluid Dynamics of Wind Energy	Topic 2-10	FMI Graduate Student Scholarship Competition
Topic 2-4	Uncertainty Quantification in Flow Measurements	Topic 2-11	FMI Flow Visualization Image Competition Entry
Topic 2-5	Novel Techniques in Fluid Mechanics	Topic 2-12	FMI Flow Visualization Video Competition Entry
Topic 2-6	Volumetric or Tomographic Techniques in Fluids Mechanics		

3) Fluid Mechanics (FMTC) Track

Topic 3-1	Advances in Fluids Engineering Education	Topic 3-9	Materials Processing and Manufacturing Processes
Topic 3-2	Aerospace	Topic 3-10	Transport Phenomena in Mixing
Topic 3-3	Fluid Power	Topic 3-11	CFD Verification and Validation
Topic 3-4	Bio-Inspired and Biomedical Fluid Mechanics	Topic 3-12	Boundary Layer Flows
Topic 3-5	Turbulent Flows	Topic 3-13	High-Speed Flows
Topic 3-6	Flow Manipulation and Active Control	Topic 3-14	Vortex Dynamics
Topic 3-7	Active Fluids	Topic 3-15	FM Poster Presentations
Topic 3-8	Transport Phenomena in Energy Conversion	Topic 3-16	FM Graduate Student Scholarship Competition

4) Multiphase Flow (MFTC) Track

Topic 4-1	Numerical Methods for Multiphase Flows	Topic 4-9	Erosion, Slurry, Sedimentation
Topic 4-2	Experimental Methods for Multiphase Flows	Topic 4-10	Multiphase Flows in Petroleum Engineering
Topic 4-3	Cavitation	Topic 4-11	Multiphase Flows in Nuclear Engineering
Topic 4-4	Gas-Liquid Flows	Topic 4-12	Compressible Multiphase Flows (Turbulent Mixing)
Topic 4-5	Liquid-Solid Flows	Topic 4-13	Open Forum on Multiphase Flows - Work in Progress
Topic 4-6	Gas-Solid Flows	Topic 4-14	MF Poster Presentations
Topic 4-7	Bubble, Droplet, and Aerosol Dynamics	Topic 4-15	MF Graduate Student Scholarship Competition
Topic 4-8	Interfacial Phenomena and Flows		

5) Computational Fluid Dynamics (CFDTC) Track

Topic 5-1	Applied CFD		Topic 5-8	Emerging Methods in CFD
Topic 5-2	CFD Development		Topic 5-9	Open Source CFD Applications
Topic 5-3	DNS, LES and Hybrid-RANS/LES Methods		Topic 5-10	Applications of CFD in Medicine and Biomedical Systems
Topic 5-4	Fluid Structure Interaction (including IBM)			
Topic 5-5	Computational Marine Hydrodynamics		Topic 5-11	Multi-physics Simulation
Topic 5-6	Computational Turbulent Combustion		Topic 5-12	Panel: Quantum Computing in CFD
Topic 5-7	Optimization, Data-based Simulations, and Machine Learning		Topic 5-13	CFD Poster Presentations
			Topic 5-14	CFD Graduate Student Scholarship Competitions

6) Micro & Nano Fluid Dynamics (MNFDTC) Track

Topic 6-1	Modelling and Simulation in Microfluidics		Topic 6-7	Digital or Droplet Microfluidics
Topic 6-2	Micro- and Nanoscale Thermofluidic Science and Devices		Topic 6-8	Micro/Nano Fabrication Techniques for Microfluidics System
Topic 6-3	Biologically Enabled Microfluidics and Biomicrofluidics		Topic 6-9	Micro Fuel Cell and Microfluidic/Nanofluidic Based Energy Storage
Topic 6-4	Micro-Total-Analysis Systems (MicroTAS) and Lab-On-A-Chip Applications		Topic 6-10	Complex Fluids and Nano-Particles
			Topic 6-11	Engineering Education in Micro/Nano Fluidics
Topic 6-5	Sensors and Transducers for Microfluidic Applications		Topic 6-12	Energy Applications of Micro-and Nano-scale Devices
			Topic 6-13	MNFD Poster Presentations
Topic 6-6	Optics and Photonics in Micro-and Nanofluidic Systems		Topic 6-14	MNFD Graduate Student Scholarship Competition

To submit, please visit the conference website and click on Submit Abstract. If you have submitted to ASME conferences in the past, simply login with your credentials. If you are new, then please create a user account. After you have logged into the submission site, simply follow the instructions. **Please note, you need to select a technical track and a topic. You will then be asked to submit an abstract with between 400 to 600 words.**

Graduate students can also submit an abstract to the Graduate Student Scholarship Topic listed under the first 6 technical tracks. The Graduate Students Steering Committee (GSSC) will evaluate the submitted papers and announce the scholarship awards during AJK2019.

To enter the **Flow Visualization Competition** submit an abstract for **Image** to Track 2-11 or **Video** to Track 2-12. Videos can be uploaded upon approval of abstract.

Conference Venue
Rosen Shingle Creek Resort & Conference Center (link embedded)
9939 Universal Blvd, Orlando, Florida 32819
Toll Free: 1 (866) 996-9939   Local: (407) 996-9939

Travel by Air
Orlando International Airport (link embedded)
Distance to the Conference Venue – Rosen Shingle Creek 11.4 miles
Nearby Universal Studios, Sea World, and Disney World

Things to do in Orlando Florida   (link embedded)