

# 2014 Purdue Conferences

Compressor Engineering Refrigeration and Air Conditioning High Performance Buildings



# ANNOUNCEMENT AND CALL FOR PAPERS



#### **General Chair**

Eckhard A. Groll

International Compressor Engineering Conference Chair

W. Travis Horton

International Refrigeration and Air Conditioning Conference Chair

James E. Braur

International High Performance Buildings Conference Chair

Thanos Tzempelikos

**Short Course Chairs** 

Ming Qu, Orkan Kurtulus

**Student Paper Competition Chair** 

Panagiota Karava

**ENDORSING AND COOPERATING ORGANIZATIONS** 































# CONFERENCE VENUE, DATES, ACTIVITIES

Date: Monday, July 14, 2014 at 10 a.m. - Thursday, July 17, 2014 at 5:00 p.m. Location: Purdue University West Lafayette Campus - West Lafayette, IN

The conferences technical sessions run simultaneously enabling attendees to attend sessions of interest from any conference. Conference registration includes online access to the conference schedule, presented papers and all social networking events. The conferences will be conducted in English.

### PROPOSED SESSION TOPICS

Compressor Engineering Conference



**Scroll Compressors Screw Compressors Rotary Compressors** Reciprocating Compressors

Dynamic Compressors Novel Compressor Mechanisms and Concepts Numerical Modeling of Compressors Thermal Management Valve Design and Analysis Compressors for Alternative Refrigerants Compressors for Air and Industrial Gases CO2 Compressors and Expanders Compressor Efficiency Enhancements Tribology and Lubrication in Compressors Noise Identification and Reduction Variable Speed Compressor Technologies **Capacity Modulation Concepts** Compressor Testing and Evaluation

Refrigeration and A/C Conference



Refrigerant Assessments
Refrigerant & Oil Properties
Lubrication Characterization & Design
Heat & Mass Transfer Enhancements
Heat Transfer and Pressure Drop Characterization
Heat Exchanger Modeling and Design
Micro-Channel Heat Exchangers
Throttles and Expanders
Domestic, Commercial, and Industrial Refrigeration
Heat Pumps

Quasi-Steady and Dynamic HVAC&R Equipment Modeling Advanced Controls for HVAC&R Equipment Automated Diagnostics for HVAC&R Equipment Vapor Compression Cycle Enhancements

Transportation Air Conditioning Equipment

Alternative Cooling and Heating Technologies Heat-Driven Refrigeration Systems Power and Co-Generation Systems High Performance Buildings Conference\*



Solar Energy Utilization in Buildings
Net Zero Energy Buildings
Renewable Energy Systems in Buildings
Geothermal Systems
Smart Buildings, Controls and Automation
Radiant Systems
Air Flow Modeling
Heat Transfer in Buildings
Ventilation & Indoor Air Quality
Building Envelope Systems and Facades
Indoor Environment
Visual and Thermal Comfort
Building Materials
Lighting and Daylighting
Building Performance Monitoring and Diagnostics
Low-energy Cooling and Natural Ventilation
Sustainable & Green Building Technologies
Building Simulation & Energy Modeling
Case Studies & Integrated Building Design

\*The High Performance Buildings conference will include an industry forum with presentations and discussions about innovative building systems and technologies.



### SHORT COURSES

#### Compressors

- Organized by Herrick Laboratories' faculty and graduate students
- Focus on positive displacement compressor modeling, such as scroll, rotary and reciprocating compressors
- Review and description of the mathematical modeling techniques to analyze positive displacement compressors, including submodels for leakage, valve, heat transfer and frictional losses
- Present parametric studies that investigate the impact of variation in geometric parameters on compressor performance.

#### Refrigeration

- Organized by the U.S. National Committee of the IIR in collaboration with Herrick Laboratories' faculty
- Focus on numerical optimization techniques for HVAC&R systems and components
- Review of software tools available commercially or open source
- $\bullet$  Case studies with respect to performances, economics and life cycle assessment
- Recognized experts from around the world will share their knowledge and real-world experiences.

# ABSTRACT AND PAPER SUBMISSION

**Abstract & Paper Submission** 

- m/2014Purdue to submit online. • Visit \
- Choose most closely related topic area
- Submit your 500 word abstract and after acceptance, an 8 page paper.
- Please note that presenting authors must be registered by the March 16, 2014 manuscript deadline.
- Abstracts and papers must be submitted in English.

### STUDENT PAPER COMPETITION

The conference organizing committee is pleased to invite students to submit abstracts for the 2014 Student Best Paper Award Competition. The following gives the eligibility information and other parameters for the competition:

- Students at the undergraduate level and graduate level at the time of submission are eligible to compete.
- Students must be the first author on the papers and must present their work at the conferences to compete.

Cash prizes will be awarded.

	DEADLINES	FEES
Abstract submission	December 20, 2013	
Abstract acceptance notification and instructions to authors for manuscript preparation	January 31, 2014	
Manuscripts submission deadline	March 31, 2014	
Notification to presenting authors of acceptance or rejection of manuscripts	April 28, 2014	
Pre-registration for the conferences ends. Final version of the papers must be uploaded at this time	May 16, 2014	
Presenting author registration	March 31, 2014	\$650
Student author registration	May 16, 2014	For I paper \$250 For 2 papers \$450 For 3 papers \$650
Non-author registration	May 30, 2014	Before May \$700 After May \$800
Student registration (non-author)	May 16, 2014	\$300
Short courses registration	May 31, 2014	Before Deadline \$650 After Deadline \$725
Groups of 6 attendees from the same employer receive 1 complimentary registration for every 5 paid registrations. Group registration fees are \$3,500 before May 30, 2014, and \$4,000 after May 30, 2014.		

### **IMPORTANT FACTS**

- Conference Registration will be available online starting in January 2014 at www.conf.purdue.edu/compressor2014
- · Companies wishing to register using a wire transfer will need to contact Kathy Walters directly at kw@purdue.edu or 765-494-2758. Note that additional wire transfer fees are included.
- · All fees must be paid in U.S. funds and drawn on a U.S. bank. Fees paid in advance but not used will be refunded upon written request by June 25, 2014. We are not responsible for costs incurred due to cancellation.
- If you require a letter of invitation to obtain your travel visa, please contact Kim Stockment at kstockme@purdue.edu.
- For additional registration information, daily schedule, etc please visit https://engineering.purdue.edu/Herrick/Events/2014Conf/index.html
- Continuing Education Units (CEU's) may be available.

Ray W. Herrick Laboratories 197 South Russell St. West Lafayette, IN 47906-2099



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# PAST CONFERENCE EVENT SPONSORS

















## **CONTACT INFORMATION**

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