

**June 9-10—Manufacturing Innovations Conference—Technologies for Oil and Gas.** Hyatt Regency Calgary, Alberta, Canada. Organized by the Society of Manufacturing Engineers' Oil and Gas Steering Committee, this event is designed to cover new and existing manufacturing technologies with the goal of becoming more competitive in the global marketplace. Among the presenters are lean practitioners and business leaders to speak about how innovation in people management can lead to unrivaled results and a positive change in culture. Keynote panel discussions focus on manufacturing influences on final product delivery and creating manufacturing competitiveness with lean culture. Technical presentations will be provided in subjects such as alternative material uses, material constraints that lead to product innovations, specialty alloys, rapid prototyping for cast components, ultrasonic testing of welded components, precision machining for oil and gas components and increasing component performance with post-process treatments.

**June 17-19—Competitive Manufacturers Conference.** Chicago Marriott Schaumburg, Schaumburg, Illinois. The Competitive Manufacturers Conference brings industry experts and practitioners together to share the latest technical information, provide the tools to transform day-to-day operations and become successful "next generation" manufacturers. The information addressed is intended to provide answers and directions for the future to attendees. The best practices and leading-edge techniques to keep a company thriving in a difficult economy will be discussed. Lean manufacturing practices and applications is another topic that will be discussed, featuring case studies, culture and enabling technologies. Collaboration strategies and tools are additional subjects emphasizing outsourcing and supply chain strategies. Manufacturing innovations and a technology watch are other primary focus areas. Industry experts will discuss questions of waste removal practices, business transformation, product development and operational excellence. For more information, visit [www.sme.org](http://www.sme.org).

**June 17-20—OPTATEC.** Frankfurt Exhibition Centre, Frankfurt, Germany. The ninth OPTATEC international trade fair is for future optical technologies, components, systems and manufacturing. Suppliers and users of optical technology attend to view new industrial optics, opto-electronics and laser technology. Optical technologies are the basis for a range of industrial fields including machine and apparatus engineering, metalworking, precision engineering, automotive engineering, aerospace industries, research institutions and medical device technologies. The trade fair consists of expert seminars, an exhibitor forum and an analysts' conference, which is organized by SPECTARIS, the German Industry Association for Optical, Medical and Mechatronic Technologies. The event is held every two years, and this year's installment has already demonstrated growth, with more booth floor space being booked and exhibiting companies traveling from 25 countries. For more information, visit [www.optatec-messe.com](http://www.optatec-messe.com).

**June 23-25—SAE International Powertrains, Fuels and Lubricants Congress.** Shanghai Marriott Hongqiao Hotel, Shanghai, China. SAE's first conference in China will encompass more than 250 new papers about technological innovations for advanced engines and powertrains, control and calibration systems, fuels, emissions and lubricants. The keynotes and plenary sessions will all be available with immediate translations. The conference includes a technical panel discussing emissions legislation and air quality objectives with panelist insight on adapting, developing and applying regional controls. Another panel discussion is about business growth among the transforming social, political and economic landscape in China, which will be led by executives from automotive, oil and supplier companies. Some of the technical sessions will look at hybrids, fuel cells, lubricants and bearing systems, small engine technology, general emissions, exhaust system modeling, engine controls and advanced lubricants. For more information, visit [www.sae.org/pflchina](http://www.sae.org/pflchina).

**July 8-10—Experiment Design Made Easy Workshop.** San Francisco. Learn how to make breakthrough improvements using design of experiments (DOE) techniques as a guide for experiments and strategic analysis and to select appropriate designs. The workshop, organized by the software company Stat-Ease, covers the powerful two-level factorial designs. This is an introductory workshop that follows the standard approach outline in Douglas Montgomery's book *Design and Analysis of Experiments*. Some skills that are covered include how to interpret analysis of variance, discover hidden interactions, exploit efficient fractional designs and determine when to use transformations. Registration is available online at [www.statease.com](http://www.statease.com). For more information, call (612) 378-9449.

**September 16-18—Basic Gear Noise Short Course.** Gear Dynamics and Gear Noise Research Laboratory. The Ohio State University, Columbus, Ohio. For more than 29 years the Basic Gear Noise Short Course has been offered by The Ohio State University's Gearlab as a tool for gear designers and noise specialists challenged by gear noise and transmission design problems. The course shows participants how to design gears so that major excitations of gear noise, such as transmission error, dynamic friction forces and shuttling forces, are reduced. The course teaches the basics of gear noise generation and gear noise measurement, in addition to gear rattle, transmission dynamics and housing acoustics. Instructors will demonstrate specialized gear analysis software and several Ohio State gear test rigs. Attendees are invited to share specific gear and transmission noise concerns in an interactive workshop session. For more information, contact Jonny Harianto, OSU Department of Mechanical Engineering, 201 West 19th Avenue, Columbus, OH 43210; phone (614) 688-3952, fax (614) 292-3163, e-mail [harianto.1@osu.edu](mailto:harianto.1@osu.edu), or visit [www.gearlab.org](http://www.gearlab.org).