

June 12–14—AGMA Gear Failure Analysis Seminar

St. Louis, Missouri. Explore gear failure analysis in this hands-on seminar where students not only see slides of failed gears but can hold and examine those same field samples close up. Experience the use of a microscope and take your own contact pattern from field samples. Gear engineers, users, researchers, maintenance technicians, lubricant experts, and managers should consider attending. Instructors include Rod Budny (RBB Engineering) and Andy Milburn (Milburn Engineering, Inc.). For more information, visit www.agma.org/education/advanced-courses/2019-gear-failure-analysis/.

June 23–26—Powdermet 2019 Sheraton Grand, Phoenix, Arizona. The leading North American technical conference on powder metallurgy and particulate materials, Powdermet 2019 is a hub for technology transfer for professionals from every part of the industry, including buyers and specifiers of metal powders, tooling and compacting presses, sintering furnaces, furnace belts, powder handling and blending equipment, quality-control and automation equipment, particle-size and powder-characterization equipment, consulting and research services, and more. It is co-located with the Additive Manufacturing with Powder Metallurgy (AMPM 2019) conference where attendees will have access to over 200 technical presentations from worldwide experts on the latest research and development. A new metal additive manufacturing tutorial will take place Sunday, June 23 from 1:30pm - 4:30pm. Powdermet is sponsored by the Metal Powder Industries Federation and APMI International. For more information, visit www.mpif.org.

July 10–11—Dritev 2019 Bonn, Germany. Increased CO₂ discussions, sustainable mobility and electrified drives: The automotive transmission world is changing. Why the understanding of the transmission changes, how it is to be understood as part of the overall powertrain and why cross-component know-how becomes more and more important are some of the subjects that will be discussed. Attendees can expect more than 1,500 developers, around 100 international exhibitors and 80 specialist lectures on one of the world's largest networking platforms for powertrain and transmission development. A special thematic focus of the Dritev 2019 is on the special topic Noise Vibration Harshness (NVH), which is both audible and tactile vibrations in motor vehicles in the range from 20 Hz to 100 Hz. Innovative analysis techniques identify these vibrations, reduce them and thus increase ride comfort for the passengers. Another special topic is the increase in powertrain power density. For more information, visit www.dritev.com.

July 10–12—AGMA Bevel Gear System Design

Oak Lawn, Illinois. Learn how to design and apply bevel gears systems from the initial concept through manufacturing and quality control and on to assembly, installation and maintenance. Engage in a practical hands-on guide to the bevel gear design, manufacture, quality control, assembly, installation rating, lubrication and, most especially, application. Engineers, technicians, and others involved in the selection, application and/or design of bevel gear systems should attend. Ray Drago is the instructor. For more information, visit www.agma.org/education/advanced-courses/2019-bevel-gear-system-design/.

July 23–24—8th WZL Gear Conference USA

Westminster, Colorado. Attendees can expect a selection of presentations from the research portfolio of WZL including information on gear design, manufacturing, gear checking, and testing. Highlights include requirements for hard finishing, gear optimization, superfinishing, trends in gear production, Internet of production, gear hobbing, gear modifications and a workshop tour of Kapp/Niles in Boulder. For 50+ years the annual WZL Gear Conference in Aachen, Germany, has been the basis for the exchange of experiences and close cooperation between the members of the WZL Gear Research Circle. The WZL Gear Conference takes place for two days which are exclusively devoted to the latest research on gear design, manufacturing, and testing for the North American market. Register at www.kapp-niles.com/index.php?id=811&L=4.

August 6–8—8th CAR Management Briefing Seminars

Grand Traverse Resort, Traverse City, Michigan. The Center for Automotive Research (CAR) MBS leads the industry in providing a context for auto industry stakeholders to discuss critical issues and emerging trends while fostering new industry relationships in daily networking sessions. Seminars include targeted sessions on manufacturing strategy, vehicle lightweighting, connected and automated vehicles, advanced powertrain, supply chain, sales forecasting, purchasing, talent and designing for technology, future factories, design optimization, the mobility ecosystem and more. CAR MBS 2019 will focus on the auto industry's commitment to change, across the spectrum of technology, strategy, mobility, policy, and manufacturing issues. This August, join us to connect with more than 1,000 stakeholders, representing automakers, suppliers, startups, media, government, and academia. For more information, visit www.cargroup.org.

August 20–22—AGMA Detailed Gear Design

Clearwater Beach, Florida. This class, taught by Raymond Drago of Drive System Technology, will provide gear engineers, gear designers and application engineers with: a basic introduction to gear theory and standardization; practical considerations and limitations associated with the application of standard AGMA/ISO durability rating analyses; investigation of the differences in stress states among the various surface durability failure modes, including pitting, spalling, case crushing and subcase fatigue; extended load capacity analysis techniques; consideration of friction in the calculation of surface compressive stresses; and much more. The course is designed for gear engineers, gear designers, application engineers, and others who are responsible for interpreting gear design or who want to better understand all aspects of gear design. AGMA members: \$1,395 for first registrant from a company, \$1,195 for additional registrants. Member rate is \$1,895 for first registrant, \$1,695 for additional registrants. Non-member rate is \$2,395, \$2,195 for additional registrants. Register at www.agma.org.