

WZL Offers Seminar on Trends in Manufacturing Soft Gears

“Attendees learn about the developments outside their companies, for example, about new, alternative gear manufacturing processes,” says Prof. Dr.-Ing. Dr.-Ing. E.h. Fritz Klocke, who heads the manufacturing technology division of WZL at Aachen University in Germany.

WZL, the German acronym for Laboratory for Machine Tools and Production Engineering, is a leading research center on processes used to manufacture gears. Also, on Nov. 29–30, WZL will be the site of a seminar, “Trends in Soft Gear Manufacturing.” The conference is for managers and experts involved in R&D, design, process engineering, production management, and manufacture of gears.

Attendees will be informed of recent developments in gear manufacturing, in prevailing cutting processes and in alternative processes, such as the precision forging of gears and in creating gears via powder metallurgy.

“It’s a good idea to be up-to-date on these processes and what are the capabilities of these processes,” Klocke says.

The seminar will consist of about 16 up-to-date presentations from experts and scientists about the manufacture of pre-heat treated gears. The presentations will cover an industrial perspective on soft gear manufacture, technology and trends in the dry manufacture of soft gears, tool technology, the manufacture of large-module gears, as well as sintering and forming of gears.

Scheduled presenters include representatives from Ceme-Con, Ceratizit, Erasteel, ESKA Automotive, GKN, Gleason-Pfauter, O-Oka, Samputensili, SEW Eurodrive and WZL itself. Each presentation will be followed by a question-and-answer session. Also, the conference will feature simultaneous translation of presentations into English.

“WZL wants to offer a platform to exchange the latest developments and experiences for everybody’s benefit,” Klocke says. First held in 2002, the seminar takes place every two years.

The seminar will be held for the first time in WZL’s new building, which was completed in July ’05.



Besides hearing presentations, attendees will be able to tour the WZL laboratory Nov. 29. “We usually have some demonstrations of our gear manufacturing machines,” Klocke says.

Klocke describes the seminar as an opportunity for attendees to learn about innovations in tools, machine tools and production processes, updating themselves

about conventional and alternative processes, and as an opportunity for attendees to increase productivity and reduce costs in their own facilities. Also, the seminar is a chance to meet various experts in the international gear community. Sometimes, the conference even results in new ideas for research projects.

The seminar is limited to about 150 attendees, and the deadline to register is Nov. 22. Also, before the deadline, registrations may not be accepted once the seminar reaches its maximum number of participants.

Attendees have to reserve their own hotel rooms in Aachen. WZL, however, offers hotel recommendations to people registering for the seminar. The hotels are about 10 minutes by car from the seminar building.

The registration fee is 695€, about \$880. Attendees receive 20% rebates if their companies are members of the WZL Gear Research Circle. The fee covers copies of the presentations, both printed copies in a proceedings book and electronic copies on a compact disc. The fee also covers a buffet dinner Nov. 29 in downtown Aachen and lunch on Nov. 29 and 30.

For more information:

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September 11–15—AGMA Training School for Gear Manufacturing—Basic Course. Richard J. Daley College, Chicago, IL. Curriculum includes classroom and hands-on training on subjects such as hobbing, shaping and inspection. \$750 for AGMA members, \$850 for non-members. For more information, contact the AGMA by phone at (703) 684-0211 or by e-mail at fentress@agma.org.

September 13–15—Basic Gear Noise Short Course. Department of Mechanical Engineering, Ohio State University, Columbus, OH. Lectures on gear noise, gear design parameters and manufacturing errors are interspersed with demonstrations of the measurement and computer software capabilities of the Gear Dynamics and Gear Noise Research Lab. The concept of gear transmission error is presented along with methods of predicting transmission errors from design and manufacturing data. The second and third day's lectures discuss gear system dynamics and acoustics, gear rattle, signal processing and case histories. \$1,450 for the basic course or \$2,200 if taken with the advanced course. For more information, contact the GearLab by phone at (614) 688-3952 or on the Internet at www.gearlab.org.

September 18–19—Advanced Gear Noise Short Course. Department of Mechanical Engineering, Ohio State University, Columbus, OH. Dedicated to individuals who already attended the basic course. Possible topics include computer modeling, transmission error prediction, general system dynamics, bearing/casing dynamics, gear rattle models, experimental approaches, modal analysis of casings, acoustic radiation, advanced signal processing, sound quality analysis and transmission error measurement. \$950 for the advanced course or \$2,200 if taken with the basics course. For more information, contact the GearLab by telephone at (614) 688-3952 or on the Internet at www.gearlab.org.

September 19–22—Metal Gear Design & Manufacturing Course. Universal Technical Systems facility, Rockford, IL. Basic and advanced gear design theory. An hour of gear design consulting on the last day is included. \$1,250. For more information, contact UTS by phone at (815) 963-2220 or on the Internet at www.uts.com.

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September 25–28—Gear China. Shanghai International Exhibition Center, Shanghai, China. Featuring standard and special gears, gear production and testing equipment, cutting tools and machine accessories. Buyers are targeted in the aerospace, automotive/motorcycle, construction, electronics, food, general machinery, machine components, and related industries. For more information, contact Business and Industrial Trade Fairs Ltd. by phone at (852) 2865-2633 or by e-mail at enquiry@bitf.com.hk. e-mail at enquiry@bitf.com.hk.

October 10–12—Expo Metalmecanica. Expo Guadalajara, Guadalajara, Mexico. An exhibition of Mexico's metalworking industry and the tools, equipment, materials, supplies and services they utilize. Co-located with Mexico's Design and Manufacturing Technology Week. Registration is free. For more information, contact Roc Exhibitions by phone at (630) 271-8210 or on the Internet at www.rocexhibitions.com.

October 22–24—AGMA Fall Technical Meeting. Grosvener Resort, Orlando, FL. Preliminary lineup of presentations covers four categories: optimizing design, standards and micropitting, application analysis, and bevel gears. \$545 for AGMA members, \$845 for non-members. For more information, contact the AGMA by phone at (703) 684-0211 or on the Internet at www.agma.org.

October 24–26—Plastic Gear Fundamentals: Design and Manufacturing. Universal Technical Systems facility, Rockford, IL. Includes academic presentations by the GearLab at Ohio State University's Department of Mechanical Engineering, Ticona, UFE and UTS. Topics include robust design methods, application of non-standard proportions, generating coordinates for mold cavities, and inspection and quality control issues. One hour of one-on-one instructor consultation time is included. \$1,250. For more information, contact UTS by phone at (815) 963-2220 or on the Internet at www.uts.com.

October 31–November 2—Shot Peening/Blast Cleaning Workshop. Indianapolis Marriott Downtown, Indianapolis, IN. Three days of instruction on the shot peening and blast cleaning industry. Product design engineers, machine operators, foremen, supervisors, maintenance and quality engineers all benefit from the workshop. Thirty-nine instructors will cover 49 industry topics. Before Sept. 8, the cost is \$725 for one participant, \$625 each for two to three people and \$550 each for four or more. After Sept. 8, the cost is \$850 for one person, \$750 each for two to three and \$650 each for four or more. For more information, contact Electronics Inc. by phone at (574) 256-5001 or on the Internet at www.shotpeener.com.

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