

January 3–7–SciTech 2022

San Diego, CA. From its creation in 1963, the American Institute of Aeronautics and Astronautics (AIAA) has organized conferences to serve the aerospace profession as part of its core mission. Spanning over 70 technical discipline areas, AIAA's conferences provide scientists, engineers, and technologists the opportunity to present and disseminate their work in structured technical paper and poster sessions, learn about new technologies and advances from other presenters, further their professional development, and expand their professional networks. The AIAA Science and Technology Forum and Exposition (AIAA SciTech) has continued to grow in each succeeding year, drawing participants from around the globe. SciTech participants tackle the most pressing issues impacting the future of aerospace, while the technical program presents innovative research and technologies that offer solutions. The newly developed hybrid format allows attendees to attend, present and interact virtually or in-person. For more information, visit www.aiaa.org

January 25–27–AGMA Fundamentals of Gear Design and Analysis

Clearwater Beach, FL. Offered by AGMA, attendees will gain a solid and fundamental understanding of gear geometry, types and arrangements, and design principles. Starting with the basic definitions of gears, conjugate motion, and the Laws of Gearing, learn the tools needed to understand the inter-relation and coordinated motion operating within gear pairs and multi-gear trains. Basic gear system design process and gear measurement and inspection techniques will also be explained. In addition, the fundamentals of understanding the step-wise process of working through the iterative design process required to generate a gear pair will be reviewed. Learn more here: www.agma.org/education/advanced-courses/2022-fundamentals-of-gear-design-and-analysis/.

January 25–27–IPPE 2022

Atlanta, GA. The International Production & Processing Expo is the world's largest annual poultry, meat and feed industry event of its kind. A wide range of international decision-makers attend this annual event to network and become informed on the latest technological developments and issues facing the industry. The 2022 IPPE will provide a full week of education programs, in addition to new technology, events on the show floor and networking opportunities with key leaders from the animal food, meat and poultry industries. The vast trade show floor will showcase the most current innovations, equipment and services used in the production and processing of animal food, meat and poultry products. Combining the expertise from the American Feed Industry Association, North American Meat Institute and U.S. Poultry & Egg Association, IPPE will also feature countless hours of dynamic education sessions focused on the latest industry issues. For more information, visit ippexpo.org.

March 5–12–IEEE Aerospace Conference 2022

Big Sky, MT. The International IEEE Aerospace Conference, with AIAA and PHM Society as technical cosponsors, is organized to promote interdisciplinary understanding of aerospace systems, their underlying science and technology, and their applications to government and commercial endeavors. The annual, week-long conference is set in a stimulating and thought-provoking environment. The 2022 conference will be the 43rd in the series. Plenary sessions feature internationally prominent researchers working on frontiers of science and engineering that may significantly impact the world we live in. Registrants are briefed on cutting edge technologies emerging from and intersecting with their disciplines. Each year, a large number of presentations are given by professionals distinguished in their fields and by high-ranking members of the government and military. For more information, visit www.aeroconf.org.

March 21–24–Gear Dynamics and Gear Noise Short Course 2022

Columbus, OH. The purpose of this unique short course is to provide a better understanding of the mechanisms of gear noise generation, methods by which gear noise is measured and predicted, and techniques employed in gear noise and vibration reduction. Over the past 40+ years about 2,450 engineers and technicians from over 380 companies have attended the Gear Noise Short Course. The course is of particular interest to engineers and technicians involved in the analysis, manufacture, design specification, or utilization of simple and complex gear systems. Industries that find this course helpful include the automotive, transportation, wind-energy, process machinery, aircraft, appliance, general manufacturing, and all gear manufacturers. The course material is covered in such a way that the fundamentals of gearing, gear dynamics, noise analysis and measurements are covered first. This makes the course appropriate to the gear designer with minimal knowledge of noise and vibration analysis as well as to the noise specialist with little knowledge of gears. For more information, visit www.nvhgear.org.

March 22–24–Gearbox CSI

Concordville, PA. A good understanding of individual failure modes and the failure scenarios that led to the actual system failure is an essential skill to designing gear/bearing systems that will operate properly for their full design life. In this course, instructors will define and explain the nature of many gear and bearing failures and discuss and describe various actual failure scenarios. In addition, a detailed primer on bearing technology prefaces the failure scenario discussions. Attendees will gain a better understanding of various types of gears and bearings. For more information, visit www.agma.org/education/advanced-courses/2022-gearbox-csi/.