Sound & Vibration Measurements –
ME 459/659 Spring 2019

invites ME students and faculty to a unique presentation on practical engineering

Tuesday, March 26 2019,
8:00-9:15 am JCAIN 206

Case Studies on Vibration Problems in Oil-Free Microturbomachinery

by
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Abstract

Eco-friendly technologies are becoming more popular and important. High speed gas foil bearings enable oil-free turbomachinery, compact and with a low footprint. The lecture introduces oil-free micro-turbomachinery (<250 kW) for industrial use and details three case studies of troubleshooting rotordynamic problems. The study includes vibration measurements, rotordynamic analysis for problem identification, and simple solution techniques to reduce unfavorable vibrations in turbo blowers for wastewater treatment plants and in a turbocompressor-electric motor for eco-friendly passenger vehicles.

Presenter Bio

Tae Ho Kim (aggie class of 2007) joined the School of Mechanical Engineering in Kookmin University, Seoul, Korea in 2012. Previously, he worked for the Korea Institute of Science and Technology (KIST) as a Senior Research Scientist. He received B.S. and M.S. degrees in mechanical engineering from Hanyang University (Korea) in 2000 and 2002, respectively, and a Ph.D. degree in mechanical engineering from Texas A&M University in 2007.

Prof. Kim has won multiple awards from ASME: 2013 Tribology Division Burt L. Newkirk Award for young investigator and Journal of Tribology 2010 & 2012 Best Paper Award. Dr Kim is an Associate Editor for the ASME Journal of Engineering for Gas Turbines and Power. His main research fields are gas/fluid film bearings, analysis and experimental evaluation, and structural/rotordynamic analysis of high speed rotating machinery.

Tae-Ho is a former TurboLab student and presently is a cisiting Scholar at ME- TAMU

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