

3 seminars from Beihang University

Thursday, September 19, 2024
14h, F050

Smart Design of Turbo-machinery Bearings Driven by the Physics-based and Machine Learning Approach Xiaomeng TONG



Xiaomeng TONG

Xiaomeng Tong is an associate professor in the School of Automation Science and Electric Engineering at Beihang University. He has a variety of research interests, including multi-physics modeling, hydrodynamic bearing design, and CAE/CAM software development. He led multiple projects, including those funded by the National Natural Science Foundation of China, and won the best paper award from the ASME Journal of Tribology. He received his Ph.D. from Texas A&M University in 2018 for his research in the multi-physics modeling of turbomachinery. Before that, he was a research engineer at GE Global Research Center in New York State, USA, where he focused on vibration and gas bearing analysis. From 2018 to 2021, he was a software scientist at Ansys Inc. in California to develop the multi-physics solver for commercial software. Dr. Tong began his current position at Beihang University in 2021, where he conducted research related to CAE/CAM software development assisted by machine learning and finite element analysis in turbomachinery, and renewable energy devices such as hydrogen compressors, etc. (tongxiaomeng@buaa.edu.cn)

Component importance measures for complex mechatronics system Chao ZHANG



Chao ZHANG

Chao Zhang received the B.S. and Ph.D. degrees in mechanical engineering from Beihang University, Beijing, China, in 2008 and 2014, respectively. He is currently an associate professor in mechatronic engineering with the School of Automation Science and Electrical Engineering, Beihang University, Beijing, China. In 2012 he was with the Department of Mechanical Engineering, School of Engineering, University of Alberta, working as a Research Scholar. His research interests include fault diagnosis, reliability design, reliability testing, maintenance strategy and resilience optimization of hydraulic systems. (cz@buaa.edu.cn)

Distributed Compressed Air Energy Storage System (DCAES) for Renewable Energy: New Principles and Methods Weiqing XU



Weiqing XU

He studied Mechanical and Electronic Engineering at Beihang University in September 2007 and obtained my PhD in Engineering in June 2013. Jointly trained doctoral student at Tokyo Institute of Technology in Japan and visiting scholar at the University of Nottingham in the UK. In September 2015, he was appointed as a lecturer at the School of Automation Science and Electrical Engineering of Beihang University. In August 2020, he was appointed as an associate professor, mainly engaged in scientific research in the fields of precision detection and energy-saving control of pneumatic systems, distributed energy and new energy storage, hydrogen energy storage and transportation, and other new energy fields. He served as a member of the Fluid Transmission and Control Branch of the Chinese Society of Mechanical Engineering and the second youth editorial board member of the journal "Oil and Gas Storage and Transportation".