



Department of
Mechanical Engineering
The University of Hong Kong



SEMINAR

Nonlinear vibration energy harvesters: Dynamics and experiments

Date: 14 July, 2025 (Monday)
Time: 2:30 p.m.
Venue: Room 7-34 and 7-35, Haking Wong Building
HKU

Speaker: Professor Shengxi Zhou
School of Aeronautics
Northwestern Polytechnical University
Xi'an
China



Abstract:

Over the past few decades, there has been remarkable progress in the development of low-powered smart wireless sensors and portable devices. However, a major challenge lies in providing continuous power sources for these sensors and devices. Meanwhile, there is a lot of vibration energy produced by mechanical equipment, vehicles, wind, etc. How to efficiently utilize such vibration energy is of great interest. Thus, vibration energy harvesting which can be considered as new green energy may solve above challenging issue. Based on recent research progress of his group, this presentation will discuss dynamics and experiments of nonlinear vibration energy harvesters.

Biography:

Dr. Shengxi Zhou is currently a professor (full) in the School of Aeronautics at Northwestern Polytechnical University, China. He has a wide range of research interests including vibration energy harvesting, nonlinear dynamics, vibration isolation, piezoelectric robots, signal processing, etc. He has published more than 100 research papers and received more than 10,000 citations in Google Scholar (H-index: 55). He has given more than 60 Keynote/Invited Talks in academic conferences/universities/institutes. He is an Associate Editor of Mechanical Systems and Signal Processing, and ASME Journal of Computational and Nonlinear Dynamics. He is an Editorial Board Member of Smart Materials and Structures, and Applied Nonlinear Dynamics and Vibrations.

ALL INTERESTED ARE WELCOME

For further information, please contact Prof. Xiaofan Li at 3917 7904.