



Center for Acoustic Studies

The "Acoustic Testing Center - Zhao Kui Building" of the Department of Systems Engineering and Naval Architecture at National Taiwan Ocean University is a noise testing facility accredited by the Taiwan Accreditation Foundation (TAF) under ISO/IEC 17025:2005 and certified by the Environmental Protection Administration as an environmental testing institution.

The acoustic laboratory in the "Acoustic Testing Center - Zhao Kui Building" features two chambers, two testing platforms, and one tunnel. The two chambers refer to two fully reverberant rooms; the two platforms are for floor impact sound testing and material dynamic stiffness testing; and the tunnel is a wind tunnel for testing silencer insertion loss. In the future, it will integrate with the original facilities of the Vibration and Noise Engineering Research Center, including the acoustics laboratory, noise and vibration testing laboratory, propeller noise and underwater acoustic field laboratory, and structural and material dynamic stiffness laboratory, to meet various related standard testing requirements. Currently, the laboratory can provide comprehensive testing for industry needs, including acoustic facilities and materials' sound insulation performance, sound absorption performance, floor impact sound buffering and insulation performance, and silencer insertion loss testing, solving a major problem of insufficient testing capacity in the industry.

The Ocean University's Vibration and Noise Engineering Research Center has been established for over 20 years, accumulating rich research and development experience. The acoustics laboratory received TAF's ISO/IEC 17025:2005 accreditation in October 2018; the noise and vibration testing laboratory obtained

certification from the Environmental Protection Administration in July 2014. Over the years, the center has executed more than 110 scientific research projects, producing 11 PhDs and 245 master's graduates, all performing well in the industry. Additionally, it has conducted over 500 commissioned tests and measurements related to materials' vibration, noise, and acoustic properties, earning recognition and praise from the building materials industry and design engineering consulting firms.