

1. Record Nr.	UNINA9910688307503321
Autore	Lissenden Clifford J.
Titolo	Ultrasonic Guided Waves / / Clifford J. Lissenden
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2020
Descrizione fisica	1 online resource (376 pages) : illustrations
Disciplina	624
Soggetti	Civil engineering Ultrasonic equipment
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The propagation of ultrasonic guided waves in solids is an important area of scientific inquiry, primarily due to their practical applications for nondestructive characterization of materials, such as nondestructive inspection, quality assurance testing, structural health monitoring, and providing a material state awareness. This Special Issue of Applied Sciences covers all aspects of ultrasonic guided waves (e.g., phased array transducers, meta-materials to control wave propagation characteristics, scattering, attenuation, and signal processing techniques) from the perspective of modeling, simulation, laboratory experiments, or field testing. In order to fully utilize ultrasonic guided waves for these applications, it is necessary to have a firm grasp of their requisite characteristics, which include that they are multimodal, dispersive, and are comprised of unique displacement profiles through the thickness of the waveguide.</p>