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Soggetti	Composite construction Mechanics of solids Fluid-structure interaction
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Nota di contenuto	Introduction -- Experimental Study of FSI with Impact Loading -- Numerical Modeling of FSI under Dynamic Loading -- FSI Effect on Frequencies, Mode Shapes, and Modal Curvatures -- FSI Study with Cyclic Loading -- FSI Study of Structures Containing Fluid -- Structural Coupling by FSI -- Composite Structures Moving in Fluids.
Sommario/riassunto	This is the first book presenting dynamic responses and failure of polymer composite structures as they interact with internal and/or external fluid media. It summarizes authoritative research carried out by the author in the past decade on various aspects of Fluid-Structure Interaction (FSI) to present important effects of FSI on composite structures. The topics include impact loading on composite structures with air-back, water-back, or containing water; FSI effects on frequencies, mode shapes, and modal curvatures; cyclic loading for fatigue failure with FSI; coupling of independent composite structures by fluid media; and moving composite structures in water. Numerical techniques for FSI are also presented. Research was conducted both experimentally and numerically to complement each other. The book offers a timely, comprehensive information to fluid-structure interaction of composite structures for students, researchers or practicing engineers. .

