1. Record Nr. UNINA9910484750703321 Autore Bhaskar K. Titolo Plates: theories and applications / / K. Bhaskar, T. K. Varadan Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2021] ©2021 **ISBN** 3-030-69424-0 Edizione [1st ed. 2021.] 1 online resource (XI, 282 p. 101 illus., 1 illus. in color.) Descrizione fisica Disciplina 624.1776 Soggetti Plates (Engineering) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Definition of a Thin Plate -- Classical Plate Theory -- A Critical Nota di contenuto Assessment of Classical Plate Theory -- Analysis of Rectangular Plates -- Analysis of Circular Plates -- Shear Deformation Theories --Variable Thickness Plates -- Plate Buckling due to Non-Uniform Compression -- Non-Linear Flexure and Vibrations -- Post-Buckling Behaviour -- Index. . This book covers the essentials of developments in the area of plate Sommario/riassunto structures and presents them so that the readers can obtain a quick understanding and overview of the subject. Several theoretical models are employed for their analysis and design starting from the classical thin plate theory to alternatives obtained by incorporation of appropriate complicating effects or by using fundamentally different assumptions. The book includes pedagogical features like end-ofchapter exercises and worked examples to help students in selflearning. The book is extremely useful for the senior undergraduate and postgraduate students of aerospace engineering and mechanical

engineering.