1. Record Nr. UNINA9910483508803321

Titolo	Machining and machinability of fiber reinforced polymer composites / / Mohamed Thariq Hameed Sultan [and four others] editors
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2021] Â©2021
ISBN	981-334-153-X
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIV, 335 p. 221 illus., 148 illus. in color.)
Collana	Composites Science and Technology , , 2662-1819
Disciplina	620.118
Soggetti	Fibrous composites
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1: Critical thrust force analyses and their effects on drilling FRP composites -- Chapter 2: Effect of drill geometry design on reduction of delamination damage in drilling FRP composites -- Chapter 3: Chapter 4: Innovative method for quantifying delamination damage in drilling FRP composites -- Chapter 5: Numerical and analytical approaches in drilling or machining of FRP composites -- Chapter 6: Cryogenics and thermal effects of drilling FRP composites on delamination damage and surface integrity -- Chapter 7: Study on tool wear and its effect on FRP composites machining -- Chapter 8: Tribological aspect in machining synthetic and natural fibre composites -- Chapter 9: Feed control method as a new method to reduce delamination during drilling of FRP -- Chapter 10: Chapter: Impact of induced damage due to drilling and machining on mechanical properties of FRP composites (including tensile and flexural strength) -- Chapter 11: Recent advances in drilling and machining natural fibre or cellulose fibre composite -- Chapter 12: Chapter: Experimental and analytical studies of abrasive water-jet machining of FRP composites -- Chapter 13: Chapter: Novel method for laser processing of FRP composites -- Chapter 14: Vibration assisted drilling and milling for reduction of damage on FRP composites -- Chapter 15: Energy demand in machining FRP composites -- Chapter 16: Safety and environmental issues or concern in machining FRP composites.
Sommario/riassunto	This book covers current advances and practices in machining fibre-

reinforced polymer composites under various conventional and nonconventional processes. It presents recent research and practices for effective and efficient machining of difficult-to-cut material, providing the technological ‘know-how’ on delamination-free of drilling, milling, trimming, and other cutting processes on fibre-reinforced polymer composites. It also guides the reader on the selection of optimum machining parameters, tool materials, as well as tool geometry. This book is of interest to academicians, students, researchers, practitioners, and industrialists working in aerospace, automotive, marine, and construction industries. .