

1. Record Nr.	UNINA9911034479103321
Autore	Harik Ramy
Titolo	Automated Fiber Placement : Status, Challenges, and Evolution
Pubbl/distr/stampa	Warrendale : , : SAE International, , 2025 ©2025
ISBN	1-4686-0307-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (278 pages)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Discover the cutting-edge technology driving the next generation of aerospace, automotive, and space exploration. Automated Fiber Placement: Status, Challenges, and Evolution offers a comprehensive dive into AFP?an innovative method that?s transforming how complex, lightweight structures are built. Over the last 50 years, fiber-reinforced composites have revolutionized industries, particularly aerospace, with carbon fiber reinforced polymers at the forefront. AFP has enabled lighter, more durable aircraft with reduced fuel consumption and improved longevity. As the aerospace industry advances with new platforms like the Boeing 787 and Airbus A350, AFP continues to evolve, integrating machine learning and automation to deliver higher efficiency and lower costs. This book serves as an essential guide, presenting a decade of research in clear, accessible language. Whether you're a student, engineer, or industry professional, you'll gain a thorough understanding of AFP and its transformative potential. Learn how it supports the rise of advanced air mobility and sustainable structures for commercial and defense aircraft, space habitats, and beyond. Join us on the journey to the future of composite materials and manufacturing, where AFP stands as the key to unlocking new possibilities for a more sustainable, efficient, and innovative world. (9781468603057 9781468603064 9781468603071 <a href="https://doi.org/10.4271/9781468603064">https://doi.org/10.4271/9781468603064</a> )

