

1. Record Nr.	UNINA9911047662103321
Autore	Axenie Cristian
Titolo	Applied Antifragility in Technical Systems : From Principles to Applications / / by Cristian Axenie, Meisam Akbarzadeh, Michail A. Makridis, Matteo Saveriano, Alexandru Stancu
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2026
ISBN	3-031-90425-7
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (182 pages)
Collana	SpringerBriefs in Computer Science, , 2191-5776
Altri autori (Persone)	AkbarzadehMeisam MakridisMichail A SaverianoMatteo StancuAlexandru
Disciplina	004.0151
Soggetti	Computer science Algorithms Artificial intelligence - Data processing Machine learning Robotics Theory and Algorithms for Application Domains Design and Analysis of Algorithms Data Science Machine Learning
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Multistability and Intrinsic Antifragility -- Inherited Antifragility -- Induced Antifragility -- Conclusions and Open Research Questions.
Sommario/riassunto	The book purpose is to build a foundational knowledge base by applying antifragile system design, analysis, and development in technical systems, with a focus on traffic engineering, robotics, and control engineering. The authors are interested in formalizing principles and an apparatus that turns the basic concept of antifragility into a tool for designing and building closed-loop technical systems that behave beyond robust in the face of uncertainty. As coined in the

book of Nassim Taleb, antifragility is a property of a system to gain from uncertainty, randomness, and volatility, opposite to what fragility would incur. An antifragile system's response to external perturbations is beyond robust, such that small stressors can strengthen the future response of the system by adding a strong anticipation component. The work of the Applied Antifragility Group in traffic control and robotics, led by the authors, provides a good overview on the current research status.
