1.	Record Nr.	UNINA9910483998803321
	Titolo	Evolutionary Machine Learning Techniques : Algorithms and Applications / / edited by Seyedali Mirjalili, Hossam Faris, Ibrahim Aljarah
	Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
	ISBN	981-329-990-8
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (287 pages)
	Collana	Algorithms for Intelligent Systems, , 2524-7565
	Disciplina	006.31
	Soggetti	Computational intelligence Artificial intelligence Neural networks (Computer science) Computational Intelligence Artificial Intelligence Mathematical Models of Cognitive Processes and Neural Networks
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Sommario/riassunto	This book provides an in-depth analysis of the current evolutionary machine learning techniques. Discussing the most highly regarded methods for classification, clustering, regression, and prediction, it includes techniques such as support vector machines, extreme learning machines, evolutionary feature selection, artificial neural networks including feed-forward neural networks, multi-layer perceptron, probabilistic neural networks, self-optimizing neural networks, radial basis function networks, recurrent neural networks, spiking neural networks, neuro-fuzzy networks, modular neural networks, physical neural networks, and deep neural networks. The book provides essential definitions, literature reviews, and the training algorithms for machine learning using classical and modern nature-inspired techniques. It also investigates the pros and cons of classical training algorithms. It features a range of proven and recent nature-inspired algorithms used to train different types of artificial neural networks, including genetic algorithm, ant colony optimization, particle swarm

optimization, grey wolf optimizer, whale optimization algorithm, ant lion optimizer, moth flame algorithm, dragonfly algorithm, salp swarm algorithm, multi-verse optimizer, and sine cosine algorithm. The book also covers applications of the improved artificial neural networks to solve classification, clustering, prediction and regression problems in diverse fields.