1. Record Nr. UNINA9910367747103321

Autore	Kodogiannis Vassilis S
Titolo	Applications of Computational Intelligence to Power Systems
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019
ISBN	3-03921-761-5
Descrizione fisica	1 online resource (116 p.)
Soggetti	History of engineering and technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Electric power systems around the world are changing in terms of structure, operation, management and ownership due to technical, financial, and ideological reasons. Power systems keep on expanding in terms of geographical areas, asset additions, and the penetration of new technologies in generation, transmission, and distribution. The conventional methods for solving the power system design, planning, operation, and control problems have been extensively used for different applications, but these methods suffer from several difficulties, thus providing suboptimal solutions. Computationally intelligent methods can offer better solutions for several conditions and are being widely applied in electrical engineering applications. This Special Issue represents a thorough treatment of computational intelligence from an electrical power system engineer's perspective. Thorough, well-organised, and up-to-date, it examines in detail some of the important aspects of this very exciting and rapidly emerging technology, including machine learning, particle swarm optimization, genetic algorithms, and deep learning systems. Written in a concise and flowing manner by experts in the area of electrical power systems who have experience in the application of computational intelligence for solving many complex and difficult power system problems, this Special Issue is ideal for professional engineers and postgraduate students entering this exciting field.