1.	Record Nr.	UNINA9910367749803321
	Autore	Bui Tinh Quoc
	Titolo	Advances in Mechanical Problems of Functionally Graded Materials and Structures
	Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019
	ISBN	3-03921-659-7
	Descrizione fisica	1 electronic resource (262 p.)

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The book deals with novel aspects and perspectives in functionally graded materials (FGMs), which are advanced engineering materials designed for a specific performance or function with spatial gradation in structure and/or composition. The contributions mainly focus on numerical simulations of mechanical properties and the behavior of FGMs and FGM structures. Several advancements in numerical simulations that are particularly useful for investigations on FGMs have been proposed and demonstrated in this Special Issue. Such proposed approaches provide incisive methods to explore and predict the mechanical and structural characteristics of FGMs subjected to thermoelectromechanical loadings under various boundary and environmental conditions. The contributions have resulted in enhanced activity regarding the prediction of FGM properties and global structural responses, which are of great importance when considering the potential applications of FGM structures. Furthermore, the presented scientific scope is, in some way, an answer to the continuous demand for FGM structures, and opens new perspectives for their practical use.