1. Record Nr. UNINA9910165154903321 Autore Mahamood Rasheedat Modupe Titolo Functionally Graded Materials / / by Rasheedat Modupe Mahamood, Esther Titilayo Akinlabi Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-53756-3 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XXI, 103 p. 50 illus., 17 illus. in color.) Collana Topics in Mining, Metallurgy and Materials Engineering, , 2364-3293 620.11 Disciplina Soggetti Structural materials Manufactures Lasers **Photonics** Structural Materials Manufacturing, Machines, Tools, Processes Optics, Lasers, Photonics, Optical Devices Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Introduction to Functionally Graded Materials -- Types of Functionally Nota di contenuto Graded Materials and their Areas Of Application -- Processing Methods of Functionally Graded Materials -- Additive Manufacturing of Functionally Graded Materials -- Experimental Analysis of Functionally Graded Materials from Laser Deposition Process (Case Study) -- Future Research Direction in FGM and Summary. This book presents the concept of functionally graded materials as well Sommario/riassunto as their use and different fabrication processes. The authors describe the use of additive manufacturing technology for the production of very complex parts directly from the three dimension computer aided design of the part by adding material layer after layer. A case study is also presented in the book on the experimental analysis of functionally

graded material using laser metal deposition process.