1. Record Nr. UNINA9910484618903321 Autore Chaki Sudipto Titolo Modelling and Optimisation of Laser Assisted Oxygen (LASOX) Cutting: A Soft Computing Based Approach / / by Sudipto Chaki, Sujit Ghosal Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-04903-5 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (ix, 56 pages) Collana SpringerBriefs in Computational Intelligence, , 2625-3704 Disciplina 671.5 671.53 Soggetti Computational intelligence Manufactures Artificial intelligence Computational Intelligence Manufacturing, Machines, Tools, Processes Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Preface -- Chapter 1. LASOX Cutting: Principles and Evolution --Chapter 2. Integrated Soft Computing Based Methodologies for Modelling -- Chapter 3. Modelling and Optimisation of LASOX Cutting of Mild Steel: A Case Study. This book presents the basics of the Laser Assisted Oxygen (LASOX) Sommario/riassunto cutting process, its development, advantages and shortcomings, together with detailed information on the research work carried out to date regarding the modelling and optimization of the process. It introduces two integrated soft computing-based models consisting of Artificial Neural Networks (ANN-GA and ANN SA) for the modelling and optimization of LASOX cutting. It also includes an in-depth discussion on the basic working algorithms of soft computing tools such as Artificial Neural Networks, Genetic Algorithms, Simulated Annealing etc. The book not only provides an approach to optimizing LASOX by means of soft computing-based integrated models, but also illustrates

the practical implementation of the proposed models.