1. Record Nr. UNINA9910745587603321 Autore Sun Jiayue Titolo Adaptive Dynamic Programming: For Chemotherapy Drug Delivery / / by Jiayue Sun, Shun Xu, Yang Liu, Huaguang Zhang Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024 Pubbl/distr/stampa 981-9959-29-2 **ISBN** [1st ed. 2024.] Edizione 1 online resource (XV, 135 p. 40 illus., 38 illus. in color.) Descrizione fisica 629.8 Disciplina Soggetti Control engineering Robotics Automation Drug delivery systems Control, Robotics, Automation **Drug Delivery** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Preface -- Acknowledgements -- Chapter 1 Introduction -- Chapter 2 Nota di contenuto Neural Networks-Based Immune Optimization Regulation Using Adaptive Dynamic Programming -- Chapter 3 Optimal Regulation Strategy for Nonzero-Sum Games of the Immune System Using Adaptive Dynamic Programming -- Chapter 4 Evolutionary Dynamics Optimal Research-Oriented Tumor Immunity Architecture -- Chapter 5 N-Level Hierarchy-Based Optimal Control to Develop Therapeutic Strategies for Ecological Evolutionary Dynamics Systems -- Chapter 6 Combination Therapy-Based Adaptive Control for Organism Using Medicine Dosage Regulation Mechanism.-Chapter 7 Adaptive Virotherapy Strategy for Organism with Constrained Input Using Medicine Dosage Regulation Mechanism -- References. This open access book focuses on the practical application of Adaptive Sommario/riassunto Dynamic Programming (ADP) in chemotherapy drug delivery, taking into account clinical variables and real-time data. ADP's ability to adapt to changing conditions and make optimal decisions in complex and uncertain situations makes it a valuable tool in addressing pressing

challenges in healthcare and other fields. As optimization technology

evolves, we can expect to see even more sophisticated and powerful solutions emerge.