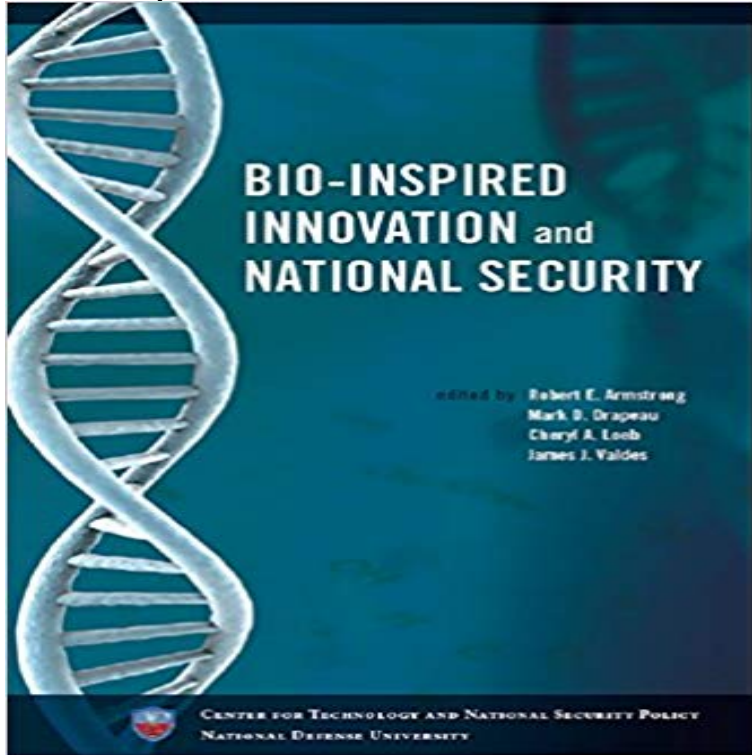


Bio-inspired Innovation and National Security



This volume is about applications of the biological sciences, here called biologically inspired innovations, to the military. Rather than treating biology as a series of threats to be dealt with, such innovations generally approach the biological sciences as a set of opportunities for the military to gain strategic advantage over adversaries. These opportunities range from looking at everything from genes to brains, from enhancing human performance to creating renewable energy, from sensing the environment around us to harnessing its power. Table of Contents List of Illustrations Foreword Andrew W. Marshall Introduction part one Perspectives on Biological Warfare chapter 1 Biotech Impact on the Warfighter Thomas X. Hammes Chapter 2 New Biological Advances and Military Medical Ethics Edmund G. Howe chapter 3 The Life Sciences, Security, and the Challenge of Biological Weapons: An Overview Michael Moodie Chapter 4 Biological Warfare: A Warfighting Perspective John B. Alexander part two Biomolecular Engineering chapter 5 Abiotic Sensing James J. Valdes, Andrew Ellington, William E. Bentley, Roy G. Thompson, and James P. Chambers chapter 6 Biosensors and Bioelectronics Dimitra Stratis-Cullum and James Sumner chapter 7 Bioenzymes and Defense Adrienne Huston chapter 8 Bioenergy: Renewable Liquid Fuels Michael Ladisch chapter 9 Bio-inspired Materials and Operations Erica R. Valdes part three Bio-inspired Machines chapter 10 Learning Unmanned Vehicle Control from Echolocating Bats Eric W. Justh chapter 11 Neurorobotics: Neurobiologically Inspired Robots Jeffrey Krichmar chapter 12 Biomimetic, Sociable Robots for Human-Robot Interaction Eleanore Edson, Judith Lytle, and Thomas McKenna chapter 13 Biomechanically Inspired Robotics John Socha and Justin Grubich chapter 14 Biological Automata

and National Security Yaakov Benenson part four Human Applications chapter 15 Enhanced Human Performance and Metabolic Engineering James J. Valdes and James P. Chambers chapter 16 Functional Neuroimaging in Defense Policy Richard Genik III, Christopher Green, and David C. Peters II chapter 17 Forging Stress Resilience: Building Psychological Hardiness Paul Bartone chapter 18 Neuroplasticity, Mind Fitness, and Military Effectiveness Elizabeth Stanley chapter 19 Bio-inspired Network Science Joao Hespanha and Francis Doyle III Part five Implications for the Department of Defense chapter 20 Ethics and the Biologized Battlefield: Moral Issues in 21st-century Conflict William D. Casebeer chapter 21 Legal Issues Affecting Biotechnology Joseph Rutigliano, Jr. chapter 22 Building the Nonmedical Bio Workforce for 2040 Timothy Coffey and Joel Schnur Conclusion About the Contributors About the Author

Bio-Inspired Innovation and National Security - Biological Warfare, Biomolecular Engineering, DARPA, Abiotic Sensing, Biosensing and Bioelectronics, - 17 secWatch PDF [DOWNLOAD] Bio-Inspired Innovation and National Security READ ONLINE by Bio-Inspired Innovation and National Security [Robert Armstrong, Mark Drapeau, Cheryl Loeb, James Valdes] on . *FREE* shipping on qualifyingBio-Inspired Innovation and National Security. Filesize: 4.12 MB. Reviews. This pdf is indeed gripping and interesting. It is definitely simplistic but shocks withinSkickas inom 3-6 vardagar. Kop Bio-Inspired Innovation and National Security av Edited By Robert E Armstrong, Mark D Drapeau, Cheryl A Loeb pa .Title : Bio-Inspired Innovation and National Security. Corporate Author : NATIONAL DEFENSE UNIV WASHINGTON DC CENTER FOR TECHNOLOGY ANDGet this from a library! Bio-inspired innovation and national security. [Robert E Armstrong National Defense University. Center for Technology and NationalBio-InSPIRED InnoVATION and nATIOnAL SECuRITY Robert E. Armstrong Mark D. Drapeau Cheryl A. Loeb James J. Valdes edited by Center for TechnologyGet this from a library! Bio-inspired innovation and national security. [Robert E Armstrong National Defense University. Center for Technology and NationalBio-inspired innovation and national security part five. iMPLICATIONS FOR THE DEPARTMENT OF DEFENSE chapter 20 ethics and the Biologized Battlefield: Moral issuesBio-InSPIRED InnoVATION and nATIOnAL SECuRITY Robert E. Armstrong Mark D. Drapeau Cheryl A. Loeb James J. Valdes edited by Center for TechnologyPrice, review and buy Bio-Inspired Innovation and National Security by Robert E. Armstrong, Mark D. Drapeau, Cheryl A. Loeb - Paperback at best price and