

Contents

Monitoring During Anesthesia: Physiology	1
Catherine M. Creighton	
Monitoring Equipment	13
Catherine M. Creighton	
The Mechatronics Inside the Animal Kingdom	27
Nadja Johnson Bressan	
Frameworks and Platforms for Monitoring Animal Health and Wellness in Human Care and in the Wild	39
Carolyn McGregor AM and Nadja Johnson Bressan	
Functional Sensory and Biomedical Applications of Cellulose Nanocrystals as a Sustainable Source of Material	61
Amin Babaei-Ghazvini and Bishnu Acharya	
Introduction to Veterinary Engineering Teaching Veterinary Anatomy: How Biomedical Engineering Has Changed Its Course	77
Tammy Muirhead	
Designing Immersive Environments for Extreme Environments	93
Tobias Cibis, Eagan Boire, and Nadja Johnson Bressan	
3D Printed Models for Veterinary Anatomy Teaching	125
W. Ben Stoughton	
Veterinary Surgery: Overview and Recent Achievements	139
Adam T. Ogilvie	
Index	155