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| Autore | Singh Rajat Emanuel |
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| Descrizione fisica | 1 online resource (191 pages) |
| Altri autori (Persone) | Singh |
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| Soggetti | Biomedical engineering<br>Biomechanics<br>Biomedical Engineering and Bioengineering<br>Biomechanical Analysis and Modeling |
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| Nota di contenuto | Biomechanical Engineering -- Techniques for the analysis of biological motion -- Statistical Analysis approach in biomechanics -- Artificial Intelligence in detecting movement patterns -- Phase plane analysis of dynamic movement -- Mechanical Models (Hill Type Model) -- Neural and contractile model of motor units (Fuglevand Model) -- Cellular model (Renshaw Cells Model) -- Control theory and stability for postural stability, movement regulation -- Neurophysiological aspects of asymmetric gait: Study on Transfemoral amputees -- Neurophysiological aspects of restored muscle coordination: Study on Spinal Cord Injury. . |
| Sommario/riassunto | This book bridges the gap between biomechanics and engineering and presents advanced concepts and techniques for the analysis of motion in biological systems. Advanced theoretical and computational concepts applied to motion analysis of biological systems are presented, as well as how these concepts can assist in identifying strategies and developing methodologies for effective rehabilitation, and even detecting movement-related disorders. This is an ideal book for biomedical engineers, physical therapists, and researchers and students studying motion analysis of biological systems. |