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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	PREFACE; CONTENTS; I. CELL MECHANICS; IMAGING AND MECHANICAL PROPERTIES OF GUINEA PIG OUTER HAIR CELLS STUDIED BY ATOMIC FORCE MICROSCOPY; DEVELOPMENT OF A NOVEL MICRO TENSILE TESTER FOR SINGLE ISOLATED CELLS AND ITS APPLICATION TO VISCOELASTIC ANALYSIS OF AORTIC SMOOTH MUSCLE CELLS; SHEAR DEPENDENT ALBUMIN UPTAKE IN CULTURED ENDOTHELIAL CELLS; BIOMECHANICAL AND BIOTRIBOLOGICAL IMPORTANCE OF SURFACE AND SURFACE ZONE IN ARTICULAR CARTILAGE; II. CELL RESPONSE TO MECHANICAL STIMULATION OSTEOBLASTIC MECHANOSENSITIVITY TO LOCALIZED MECHANICAL STIMULUS DEPENDS ON ORIENTATION OF CYTOSKELETAL ACTIN FIBERSMICROBIOMECHANICAL PROPERTIES OF CULTURED ENDOTHELIAL CELLS ESTIMATED BY ATOMIC FORCE MICROSCOPY; EFFECTS OF MECHANICAL STRESSES ON THE MIGRATING BEHAVIOR OF ENDOTHELIAL CELLS; III. TISSUE ENGINEERING; ENGINEERING APPROACHES TO REGULATE CELL DIFFERENTIATION AND TISSUE REGENERATION; A NEW THEORY ON THE LOCALIZATION OF VASCULAR DISEASES; AUTOMORPHOGENESIS OF LOAD BEARING FIBROUS TISSUES:

GENERATION OF TENSILE STRESS, CELL ALIGNMENT, AND MATRIX DEFORMATION BY FIBROBLASTS
 IV. COMPUTATIONAL BIOMECHANICS
 NOTE ON ANISOTROPIC PROPERTIES OF CANCELLOUS BONE AND TRABECULAE: ELASTICITY AND HARDNESS; APPLICATION OF COMPUTATIONAL BIOMECHANICS TO CLINICAL CARDIOVASCULAR MEDICINE; BIOMECHANICAL STUDY FOR SKELETAL MUSCLE INJURY AND A VIEW OF MICRO-BIOMECHANICS FOR MICROSTRUCTURE OF MUSCLE; MECHANICAL BEHAVIOR AND STRUCTURAL CHANGES OF CELLS SUBJECTED TO MECHANICAL STIMULI: DEFORMATION, FREEZING, AND SHOCK WAVES; SUBJECT INDEX; A; B; C; D; E; F; G; H; I; K; L; M; N; O; P; Q; R; S; T; U; V; W; Y

Sommario/riassunto

This book is essential reading for those interested in understanding current trends of research in the area of biomechanics at micro- and nanoscale levels. It details the research carried out to date in this field by fourteen prominent researchers as part of a four-year government supported project which commenced in 2003.

2. Record Nr.

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Autore

Kyamakya Kyandoghere

Titolo

Recent Advances in Machine Learning Techniques and Sensor Applications for Human Emotion, Activity Recognition and Support // edited by Kyandoghere Kyamakya, Fadi Al Machot, Habib Ullah, Florenc Demrozi

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Altri autori (Persone)

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 UllahHabib
 DemroziFlorenc

Disciplina

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Soggetti

Computational intelligence
 Machine learning
 User interfaces (Computer systems)
 Human-computer interaction
 Computational Intelligence
 Machine Learning
 User Interfaces and Human Computer Interaction

Lingua di pubblicazione	Inglese
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Nota di contenuto	Decoding Human Essence Novel Machine Learning Techniques and Sensor Applications in Emotion Perception and Activity Detection -- Leveraging Context-Aware Emotion and Fatigue Recognition through Large Language Models for Enhanced Advanced Driver Assistance Systems ADAS -- ECG based Human Emotion Recognition Using Generative Models -- An evolutionary convolutional neural network architecture for recognizing emotions from EEG signals -- Analyzing the Potential Contribution of a Meta Learning Approach to Robust and Effective Subject Independent Emotion related Time Series Analysis of Bio signals -- A Multibranch LSTM CNN Model for Human Activity Recognition -- Importance of Activity and Emotion Detection in the field of Ambient Assisted Living -- Real Time Human Activity Recognition for the Elderly VR Training with Body Area Networks -- An Interactive Metamodel Integration Approach IMIA for Active and Assisted Living Systems.
Sommario/riassunto	This book explores integrating machine learning techniques and sensor applications for human emotion and activity recognition, creating personalized and effective support systems. It covers state-of-the-art machine learning techniques and large language models using multimodal sensors. Enhancing the quality of life for individuals with special needs, particularly the elderly, is a key focus in Active and Assisted Living (AAL) research. Unlike other literature, it emphasizes support mechanisms along with recognition, using metamodel integration for adaptable AAL systems. This book offers insights into technologies transforming AAL for researchers, students, and practitioners. It is a valuable resource for developing responsive and personalized support systems that enhance life quality in smart environments. It is also essential for advancing the understanding of machine learning and sensor technologies in AAL and emotion recognition. .