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| Nota di contenuto | Feature Extraction and Classification -- Fiber Segmentation Using Constrained Clustering -- A New Multi-Task Learning Technique to Predict Classification of Leukemia and Prostate Cancer -- A Benchmark for Geometric Facial Beauty Study -- An Effective Feature Extraction Method Used in Breath Analysis -- Classification of Diabetics with Various Degrees of Autonomic Neuropathy Based on Linear and Nonlinear Features Using Support Vector Machine -- Diabetes Identification and Classification by Means of a Breath Analysis System -- Automatic Measurement of Vertical Cup-to-Disc Ratio on Retinal Fundus Images -- Tongue Image Identification System on Congestion of Fungiform Papillae (CFP) -- Newborn Footprint Recognition Using Band-Limited Phase-Only Correlation -- Radii Solaris Extraction through Primitive Modelling -- A DIAMOND Method for Classifying Biological Data -- Tongue Image Texture Segmentation Based on Gabor Filter Plus Normalized Cut -- Chaos Synchronization Detector Combining Radial Basis Network for Estimation of Lower Limb Peripheral Vascular Occlusive Disease -- Classification of Wrist Pulse Blood Flow Signal Using Time Warp Edit Distance -- Computerized Pork |

Quality Evaluation System -- Abnormal Image Detection Using Texton
 Method in Wireless Capsule Endoscopy Videos -- Active Contour
 Method Combining Local Fitting Energy and Global Fitting Energy
 Dynamically -- Optic Disc Detection by Multi-scale Gaussian Filtering
 with Scale Production and a Vessels' Directional Matched Filter --
 Retinal Vessel Centerline Extraction Using Multiscale Matched Filter and
 Sparse Representation-Based Classifier -- Pulse Waveform
 Classification Using ERP-Based Difference-Weighted KNN Classifier --
 Health Care -- Development of a Ubiquitous Emergency Medical Service
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 Based Non-rigid Registration Using Quaternion Subdivision -- A Sparse
 Decomposition Approach to Compressing Biomedical Signals -- A
 Comparative Study of Color Correction Algorithms for Tongue Image
 Inspection -- An Mean Shift Based Gray Level Co-occurrence Matrix for
 Endoscope Image Diagnosis -- A Novel Criterion for Characterizing
 Diffusion Anisotropy in HARDI Data Based on the MDL Technique.

Sommario/riassunto

In the medical field, personal medical feature data, especially
 digital images, can be referred to as medical biometrics. Such data are
 produced in ever-increasing quantities and used for diagnostics and
 therapy purposes. Medical biometric research aims to use personal
 medical features in different formats such as - ages, signals and other
 sources to solve medical problems and to provide high performance
 services in the medical field. Medical biometric systems integrate
 multidisciplinary technologies in biology, medicine, electronics,
 computing, and statistics. The importance of computer-aided diagnosis
 and therapy has drawn

more and more attention worldwide and laid the foundation for modern medicine

with excellent potential for promising applications such as telemedicine and
 Web-based healthcare.

The 2010 International Conference on Medical Biometrics (ICMB2010) placed
 emphasis on efficient and effective medical biometric technologies and
 systems. It provided a central forum for researchers, engineers and
 vendors from different disciplines to exchange the most recent results,

identify future directions and challenges, and initiate possible collaborative research and system development. We are pleased that this conference attracted a large number of high-quality research papers that reflect the increasing interests and popularity in this fast-growing field. The conference proceedings contain 45 papers which were selected through a strict review process, with an acceptance rate at 38%. Each paper was assessed by three independent reviewers. All of the accepted papers were presented in either oral (20) or poster (25) sessions at the conference in conjunction with three special sessions on State-of-the-Art of Computer-Aided Detection/Diagnosis (CAD), Modernization of Traditional Chinese Medicine (TCM) and Effective Healthcare.
