

2009 International Conference on Biomedical and Pharmaceutical Engineering

(ICBPE 2009)

**Singapore
2-4 December 2009**



IEEE Catalog Number: CFP0978A-PRT
ISBN: 978-1-4244-4763-3

TABLE OF CONTENTS

Self-Recognition of DNA – From Life Processes to DNA Computation.....	1
<i>W. Benjamin</i>	
Geometrical and Texture Features Estimation of Lung Cancer and TB Images Using Chest X-ray Database	9
<i>S.A. Patil, V.R. Udupi, C.D. Kane, A.I. Wasif, J.V. Desai, A.N. Jadhav</i>	
Development of an Ultrasound Thrombolysis System for Artificial Hearts	16
<i>S. Tsujimura, Y. Sankai</i>	
Analysis of a Novel Magnetic Stimulation System: Magnetic Harmonic Multi-Cycle Stimulation (MHMS)	22
<i>S.M. Goetz, T.H. Weyh, H.G. Herzog, T.U. Muenchen</i>	
Synergism from Combination of Platinums in Ovarian Cancer.....	28
<i>F. Huq, A. Alshehri, P. Beale, J.Q. Yu</i>	
A Cardiovascular Model for Blood Pressure Control Systems.....	31
<i>P.C.A. Ang, B.W. Ang, K.Y. Zhu</i>	
Feature Selection and Classification for Wireless Capsule Endoscopic Frames	39
<i>P. Khun, Z. Zhuo, L. Yang, L. Liyuan, L. Jiang</i>	
An Alternative Index for Monitoring Microcirculatory Blood Flow: The Beat-to-beat Microcirculatory Blood Flow Variability	45
<i>H. Hsiu, W.C. Hsu, C. Hsu</i>	
A Preliminary Study on the Correlation of Frequency Components between Finger PPG and Radial Arterial BP Waveforms.....	49
<i>H. Hsiu, C.L. Hsu, T.L. Wu</i>	
A Voting and Predictive Neural Network System for use in a New Artificial Larynx.....	53
<i>M.J. Russell, D.M. Rubin, T. Marwala, B. Wigdorowitz</i>	
Basic Study of a New Diagnostic Modality by Non-invasive Measurement of the Electrical Impedance Tomography (EIT) on Localized Tissues	57
<i>K. Okazaki, A. Tangoku, T. Morimoto, K. Hattori, R. Kotani, E. Yasuno, M. Akutagawa, Y. Kinouchi</i>	
The Unique Gene Expression Profile of the Anti-tumour Agent, Cisplatin, Compared with its Clinically Ineffective Isomer, Transplatin	62
<i>V. Murray, A. Galea</i>	
MiBank: A Web-based Integrated Medical Information System for Traumatic Brain Injury	67
<i>S. Tang, Z. Zhang, B. Pang, C.C. Lim, B. Ang, C. Lee, C. Tan, T. Gong, R. Liu, Q. Tian</i>	
Pervasive Real-Time Biomedical Monitoring System.....	72
<i>A. Cheriyan, A. Jarvi, Z. Kalbarczyk, R. Iyer, K. Watkin</i>	
Non-invasive Measurement of Blood Flow Using Magnetic Disturbance Method	80
<i>C. Phua, G. Lissorgues</i>	
In-vitro Screening and Docking Study of Fosinopril and its Analogs	84
<i>S. Kini, J. Chaudhary, S. Arora</i>	
Aceclofenac Ethosomes for Enhanced Transdermal Delivery	88
<i>L. Shaila, D. Vivek</i>	
Recognition of Follicles in Ultrasound Images of Ovaries using Geometric Features	92
<i>P.S. Hiremath, J. Tegnoor</i>	
Analysis of Diffuse Reflectance Spectra of Various Skin Conditions by Principal Component Method	100
<i>S. Prince, S. Malarvizhi</i>	
A New Wavelet Based Algorithm for Estimating Respiratory Motion Rate Using UWB Radar.....	104
<i>M. Baboli, S. Ghorashi, N. Saniei, A. Ahmadian</i>	
An Accurate and Robust Algorithm for Detection of Heart and Respiration Rates Using an Impulse-Based UWB Signa	107
<i>M. Baboli, A. Sharafii, A. Ahmadian, M. Nambakhsh</i>	
A Framework for Simulation of UWB System for Heart Rate Detection	111
<i>M. Baboli, A. Sharafii, A. Ahmadian, S. Karimifard</i>	
Use of a Rotary Bioreactor for Growth and Differentiation of Mesenchymal Stem Cells.....	116
<i>X.S. Teh, Y.C. Chng, W.S. Chong, T.T. Foo</i>	
An Improved Echo Tracking Algorithm for Arterial Distensibility Measurements	124
<i>J. Jayaraj, V. Jayashankar</i>	
Formulation and Physical Characterization of Microemulsions Containing Isotretinoin.....	129
<i>S. Ramlil, B. Ross, I. Gentle</i>	

Risk of Rupture Analysis for Advanced Level of AAA Under Combined Physiological And Physical Conditions	136
<i>I. Taib, K. Osman, M. Kadir, M. Padzillah</i>	
Screening of Plant Macaranga Peltata for its Antioxidant, Antimicrobial and Cytotoxicity Activity.....	142
<i>M. Verma, P. Raj, H. Chandrasekhar, J. Rao, N. Udupa</i>	
Comparison of AdaBoost and Logistic Regression for Detecting Colorectal Cancer Patients with Synchronous Liver Metastasis.....	145
<i>J. Wen, X. Zhang, Y. Xu, Z. Li, L. Liu</i>	
Numerical Simulation for Nasal Flow with Partial Inferior Turbinectomy-A Turbulent Model.....	151
<i>X. Chen, H. Lee, V. Chong, D. Wang</i>	
In Silico Modeling of Pharmaceutical Formulation using Artificial Neural Networks.....	154
<i>S. Piriayaprasarth, V. Patomchaiwiwat, P. Sriamonsak</i>	
Anticancer Activity of Hypericum Mysorense	159
<i>H. Chandrasekhar, P. Raj, J. Rao, N. Udupa</i>	
Genome-Wide Association Study for Glaucoma	162
<i>J. Liu, Z. Zhang, S. Chin, Y. Teo, W. Wong, N. Tan, J. Lim, S. Lu, H. Li, T. Wong</i>	
Noise Reduction in DEXA Image based on System Noise Modeling	167
<i>J.W. Kwon, S.I. Cho, Y.B. Ahn, Y.M. Ro</i>	
Advances in the Development of Ultraviolet Sterilization System for Specific Biological Applications.....	173
<i>S. Ravichandran, B. Dan, L. Yi, T. Kwoon, T. Kang, S. Isa, S. Kumar</i>	
Nonlinear Mixed Effects Pharmacokinetic/Pharmacodynamic Analysis of the Cholinesterase Inhibitor Pyridostigmine Bromide in Chinese Males.....	178
<i>S. Yong, L. Keong, M. Shabbir, J. Lee</i>	
A Comparison Analysis Between Partial Least Squares and Neural Network in Non-invasive Blood Glucose Concentration Monitoring System.....	182
<i>C. Ming, P. Raveendran, P. Chew</i>	
Structural and Fluid Transport Characterization of Bio-scaffolds based on 3D Imaging Data	186
<i>B. Notarberardino, P.G. Young, G.R. Tabor, L. Hao, I.G. Turner, A. Harkara</i>	
Design of Portable ARM Processor based ECG Module For 12 lead ECG Data Acquisition and Analysis.....	189
<i>C. Ghule, D.G. Wakde, G. Virdi, N. Khodke</i>	
Design of HMI for Multipurpose Electrocardiography Using Higher Level Language (Visual C++).....	197
<i>C. Ghule, D.G. Wakde, G. Virdi</i>	
Automatic Detection of the Macula in the Retinal Fundus Image by Detecting Regions with Low Pixel Intensity	201
<i>N.M. Tan, D.W.K. Wong, J. Liu, W.J. Ng, Z. Zhang, J.H. Lim, Z. Tan, Y. Tang, H. Li, S. Lu, T.Y. Wong</i>	
Enhancement of Optic Cup Detection from ARGALI using Key Points	206
<i>D.W.K. Wong, N.M. Tan, J. Liu, Z. Tan, Y. Tang, Z. Zhang, J.H. Lim, W.J. Ng, H. Li, S. Lu, T.Y. Wong</i>	
Experimental Study on Blood Flow Rate Measurement using Intravascular Catheter.....	211
<i>S. Tan, C. Lam, W. Lim</i>	
AS1411 Aptamer for Targetable Photosensitizer Delivery	215
<i>M.J. Shieh, Y.A. Shieh, P.S. Lai</i>	
Biochemical Studies on the Effect of Medicinal Plants Gymnema and Andrographis Species on Diabetes Induced Wistar Rats	221
<i>A. Rani, K. Venkatesh, P. Chakrapani</i>	
Tremor Quantification and Its Measurements on Parkinsonian Patients	224
<i>K. Harish, M. Rao, R. Borgohain, A. Sairam, P. Abhilash</i>	
Designing Hypothesis of Some 2,4 -Disubstituted- Phenoxy Acetic Acid Derivatives as A Crth₂ Receptor Antagonist: A QSAR Approach	227
<i>A. Jain, R.K. Agrawal</i>	
Identification of Hearing Disorder by Multi-Band Entropy Cepstrum Extraction from Infant's Cry	231
<i>M. Jam, H. Sadjedi</i>	
Photosensitizing Drugs Loaded Stable Carrier- Artificial Oil Bodies	236
<i>Y.C. Chiou, P.S. Lai</i>	
Reversal of Multidrug Resistance Using Poly(L-lactide)-vitamin E TPGS Micelles in Breast Cancer Cell	239
<i>P.Y. Li, P.S. Lai, C.C. Lin</i>	
Identifying Patterns of Conformational Changes in HLA-A*0201-related Immunological Activities	244
<i>C. Otto, S. Handoko, K. Keong</i>	
Using Survival Models to Analyze the Effects of Social Attributes on Length of Stay of Stroke Patients	250
<i>C.K. Kwoh, K.H. Lee, T.V. Le</i>	

Prediction of Paroxysmal Atrial Fibrillation by Dynamic Modeling of the PR Interval of ECG	255
<i>M. Arvaneh, H. Ahmadi, A. Azemi, M. Shajiee, Z.S. Dastgheib</i>	
A Surgical Training Simulator for Temporal Bone Anatomy Education	260
<i>W. Xie, W. Kong, E. Song, Q. Zhang</i>	
Author Index	