Session M1A
Biochips & Bioinstrumentation I

Date: December 11, 2006
Time: 1330 - 1530
Room: Bergomont

M1A.1 Electrooculogram based Instrumentation and Control System (IC System) and its Applications for Severely Paralysed Patients
A Rajan, *R G Shivakeshavan, *V R Jayaraman
Sathyabama University, INDIA
*Anna University, INDIA

M1A.2 Rapid Differentiation of Pharmaceutical Biomolecules: Ginseng and Adulterants
Y L K Yap, C S Lim, *S Y Chan, **Y W Chan
Nanyang Technological University, SINGAPORE
*National University of Singapore, SINGAPORE
**Singapore General Hospital, SINGAPORE

M1A.3 Design and Rapid Constructions of Microstructures in Optical Fibers using CO2 Laser-Their Potentials for Biosensor Application
R Irawan, S C Tjin, C M Tay, K M Tan
Nanyang Technological University, SINGAPORE

M1A.4 Electrochemical Study of a DNA Base Probe based on Anticancer Drug Dacarbazine
R Zhang, X Wang
Southeast University, CHINA

M1A.5 The Effect of UV Irradiation on the Binding of Anticancer Drug Doxorubicin to DNA in the Presence of TiO2 Nanoparticles Binding Drug to DNA
M Song, X Wang
Southeast University, CHINA

M1A.6 Evaluation of Speech Intelligibility for Feedback Adaptive Active Noise Cancellation Headset
J H Lin, *S T Tang, **W R Han, **C Y Chuang, **P T Liu, **S T Young
Kun Shan University, TAIWAN
*Yuanpei Institute of Science and Technology, TAIWAN
**National Yang-Ming University, TAIWAN
**Session M1B**

Biomedical Imaging & Visualization I

**Date:** December 11, 2006  
**Time:** 1330 - 1530  
**Room:** Jasmine

**M1B.1**  
Extraction of the Breast Cancer Tumour in Mammograms using Genetic Active Contour  
G Rezai-Rad, M Kashanian  
Iran University of Science and Technology, IRAN

**M1B.2**  
Automatic Gridding of Rotated Microarray Images  
C Le Brese, J J Zou  
University of Western Sydney, AUSTRALIA

**M1B.3**  
A Histogram-Based Fast Enhancement Algorithm for CT Head Images  
J Yin, X Tian, Z Tang, *Y Sun  
Macao University of Science and Technology, MACAU S.A.R.  
*Tsinghua University, CHINA

**M1B.4**  
Retrospective Cluster Size Thresholding for MRF-based Detection of Activated Regions in fMRI  
S A Sadananthan, V Zagorodnov  
Nanyang Technological University, SINGAPORE

**M1B.5**  
Statistical Surface Wavelets Model for Multiscale and Spatial-Localized Medical Image Analysis  
National University of Singapore, SINGAPORE  
*Singapore Bioimaging Consortium, SINGAPORE

**M1B.6**  
A Monopole Probe Loaded by two Parasitic Elements for MRI 1.5 Tesla  
M Mohammadzadeh, *S A Ghasempour Shirazi  
Information and Communications Technology Faculty, IRAN  
*University of Applied Science and Technology, IRAN
Session M1C

Biomedical Signal Processing I

Date: December 11, 2006
Time: 1330 - 1530
Room: Lavender 1

M1C.1 Minimum Relative Entropy (MRE) Method for Fuzzy Based Classification of Epilepsy Risk Levels from EEG Signals
R S Ponnu, H Rajaguru
Thiagarajar College of Engineering, INDIA

M1C.2 Speech-like Analysis of Snore Signals for the Detection of Obstructive Sleep Apnea
A K Ng, T S Koh, *E Baey, **K Puvanendran
Nanyang Technological University, SINGAPORE
*Respironics Incorporated, SINGAPORE
**Singapore General Hospital, SINGAPORE

M1C.3 Developing Hidden Markov Models for Aiding the Assessment of Preterm Babies' Health
D S Lee, J Roscoe, *G Russell
University of Canterbury, NEW ZEALAND
*Christchurch Women's Hospital, NEW ZEALAND

M1C.4 A Novel Pattern Recognition Technique for Quantification of Heart Rate Variability
National Institute of Technology, Calicut, INDIA
*Santhy Hospital, INDIA

M1C.5 Tracking the Left Ventricular Motion by Harmonic State Model
L Evina, M Oumsis, M Meknassi
University Sidi Mohamed Ben Abdellah, MOROCCO

M1C.6 Localisation of Epileptic Seizures by - A Novel Technique Topographical Brain Electrical Activity Mapping
N Dewan, S Shenbagadevi
Anna University, INDIA
Session M1D

Biomechanics I

Date: December 11, 2006
Time: 1330 - 1530
Room: Lavender 2

M1D.1 Influence of Colour Hue on Fractal EEG Dimensions
J Tripathy, F K Fuss, V V Kulish, S Yang
Nanyang Technological University, SINGAPORE

M1D.2 Design and Development of an Earthquake-Simulated Environment for the Study of Postural Stability
Z O Abu-Faraj, T F Hamdan, M R Wehbi, G A Khalil, H M Hamdan
American University of Science and Technology, LEBANON

M1D.3 Dynamic Intrameniscal Stresses Measurement in the Porcine Knee
P K Goh, F K Fuss, *T Yanai, A C Ritchie
Nanyang Technological University, SINGAPORE
*Chukyo University, JAPAN

M1D.4 Using Sole Pressure Signals to Analyze Walking Posture
Y Okazaki, N Yoshida, K Oguchi
Seikei University, JAPAN

M1D.5 Effect of Vibration on Lumbar Bone of OVX Rats Compared with Risedronate-dosed Rat
C Y Ko, T W Lee, D G Woo, B S Namgung, H S Kim, *B Y Lee
Yonsei University, KOREA
*Kunkuk University, KOREA

M1D.6 Finite Element Analysis of Head-Neck Kinematics under Rear-end Impact Conditions
E C Teo, Q H Zhang, T X Qiu
Nanyang Technological University, SINGAPORE
### Session M2A

#### Biochips & Bioinstrumentation II and Bionanotechnology & BioMEMS

<table>
<thead>
<tr>
<th>Date</th>
<th>December 11, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1600 - 1800</td>
</tr>
<tr>
<td>Room</td>
<td>Bergomont</td>
</tr>
</tbody>
</table>

#### M2A.1 Monitoring and Measuring Instrument Design of RF Electromagnetic Fields for Human Physical and Mental Health
C Y Chuang, *J H Lin, **S T Tang, W R Han, P T Liu, S T Young
National Yang-Ming University, TAIWAN
*Kun Shan University, TAIWAN
**Yuanpei Institute of Science and Technology, TAIWAN

#### M2A.2 Wireless Health Alert and Monitoring System
A Kumar, F Rahman
Singapore Polytechnic, SINGAPORE

#### M2A.3 Noninvasive Estimation of Tissue Impedance based on an Equivalent Circuit Model
Y Ikeda, Y Sato, Y Kinouchi, *E Yasuno, Y Omine, A Tangoku, T Morimoto
The University of Tokushima, JAPAN
*Anan College of Technology, JAPAN

#### M2A.4 Fabrication and Performance Testing of Disposable Micropump Suitable for Microfluidic Chip
R Irawan, P Aparajita, S Swaminathan, S C Tjin
Nanyang Technological University, SINGAPORE

#### M2A.5 Design and Development of a Simple Hardware Setup for Sensing Blood Volume Pulse and a PIC Microcontroller Based Heart Rate Meter
V K Jayasree, V P N Nampoori, P Radhakrishnan, C P G Vallabhan
Cochin University of Science and Technology, INDIA

#### M2A.6 Nanocomposite Bone Tissue-Engineering Scaffolds Prepared from Gelatin and Hydroxyapatite using Layer Solvent Casting and Freeze-Drying Technique
M Azami, F Orang, F Moztarzadeh
Amirkabir University of Technology, IRAN
Session M2B

Biomedical Imaging & Visualization II

Date: December 11, 2006
Time: 1600 - 1800
Room: Jasmine

M2B.1 Modified Fuzzy Hopfield Neural Network using for MRI Image Segmentation
G Rezai-Rad, *R Valipour Ebrahimi
Iran University of Science and Technology, IRAN
*Azad University of Ashtiyan, IRAN

M2B.2 Automated Endocardial Boundary Detection using Dynamic Directional Gradient Vector Flow Snakes
K Mahendran, S W Foo
Nanyang Technological University, SINGAPORE

M2B.3 Accurate Extraction of Contour Information from the Cleavage of Neural Stem Cells
C Tang, *J Xu
Harbin Engineering University, CHINA
*University of Hertfordshire, UNITED KINGDOM

M2B.4 FPGA Implementation of Real-time Fluorescence Endoscopy Imaging Algorithms
Nanyang Technological University, SINGAPORE
*National Cancer Centre Singapore, SINGAPORE

M2B.5 Discrimination between Alzheimer's Disease and Control Group in MR-images based on Texture Analysis using Artificial Neural Network
M Torabi, R Dehestani Ardekani, E Fatemizadeh
Sharif University of Technology, IRAN

M2B.6 Breast Cancer Diagnosis and Classification in MR-images using Multi-stage Classifier
R Dehestani Ardekani, M Torabi, E Fatemizadeh
Sharif University of Technology, IRAN

M2B.7 A Complete Automatic Region Growing Method for Segmentation of Masses on Ultrasound Images
P Srinivasan, R Gurupatham
Anna University, INDIA
Session M2C
Biomedical Signal Processing II

Date: December 11, 2006
Time: 1600 - 1800
Room: Lavender 1

M2C.1 EEG Signal Analysis based on Time-variant Coupled Network Lattice Model
M Shen, G Chang, S Wang, *P J Beadle
Shantou University, CHINA
*Portsmouth University, UNITED KINGDOM

M2C.2 Estimation of Visual ERP Signals with Nonextensive Entropy
M Shen, B Li, H Tang
Shantou University, CHINA

M2C.3 Prediction of Active Substance Content in Pharmaceutical Tablets using Wavelet Compressed NIR and Raman Spectroscopic Data
C S Soh, R Paramesran
University Malaya, MALAYSIA

M2C.4 Changes in Cardiopulmonary Coupling during Sleep Onset
C P Chua, C Heneghan
University College Dublin, IRELAND

M2C.5 Heart Rate Variation for Iodinated Contrast Medium Injection based on Adaptive Template Matching Algorithm
K M Chang, Y C Su, *S H Liu, **S C Yang, **Y L Li
Asia University, TAIWAN
*Yuanpei University of Science and Technology, TAIWAN
**Lin-Shin Hospital, TAIWAN

M2C.6 Evaluation of Feature Selection Methods for Improved EEG Classification
A Alsukker, A Al-Ani
University of Technology, Sydney, AUSTRALIA
Session M2D

Biomechanics II

Date: **December 11, 2006**
Time: **1600 - 1800**
Room: **Lavender 2**

**M2D.1**

Time-Dependent Change of Load Sharing between Two Non-Linear Visco-Elastic Materials: Experiment and Model  
F K Fuss, P K Goh, *T Yanai, A C Ritchie  
Nanyang Technological University, SINGAPORE  
*Chukyo University, JAPAN

**M2D.2**

Status Review on Human Reproduction Biomechanics  
J Y A Foo, C S Lim  
Nanyang Technological University, SINGAPORE

**M2D.3**

CT Based Three Dimensional Finite Element Model of Cervical Spine  
S Basa, V Balasubramanian  
Indian Institute of Technology, Madras, INDIA

**M2D.4**

On Preconditioning and Stress Relaxation Behaviour of Fresh Swine Skin in Different Fibre Direction  
Z Liu, K Yeung  
University of Sydney, AUSTRALIA

**M2D.5**

Design and Mechanics of TLIF/ELIF Implants  
F K Fuss, *R J Sabitzer  
Nanyang Technological University, SINGAPORE  
*Otto Wagner Hospital, AUSTRIA

**M2D.6**

Biomechanical Tests of Osteoporotic Vertebral Trabecular Bone using Finite Element Analysis based on Micro-CT  
D G Woo, T W Lee, C Y Ko, H S Kim, *Y Y Won  
Yonsei University, KOREA  
*Ajou University, KOREA
Session T1A
Bionanotechnology & BioMEMS II and Tissue Engineering

Date: December 12, 2006
Time: 1350 - 1550
Room: Bergomont

T1A.1 Encapsulation of DNA by Cationic Copolymer Vesicles for Gene Delivery and Microarraying Techniques
C K B Wong
Ministry of Education, SINGAPORE

T1A.2 Thermo-Responsive Hydrogel-Coated Gold Nanoshells
J H Kim, T R Lee
University of Houston, UNITED STATES

T1A.3 Preparation and Characterization of Poly-e-caprolactone Carrier Particles for Controlled Insulin Delivery
A Mukerjee, V Pruthi, *V R Sinha
Indian Institute of Technology, Roorkee, INDIA
*Panjab University, INDIA

T1A.4 Adhesion of Tooth Germ Cells on Various Biomaterials
R S Chen, T H Young, M H Chen
National Taiwan University, TAIWAN

T1A.5 Interactions of HepG2 Cells on Biomaterials with Various Surface Properties
J N Lu, T H Young
National Taiwan University, TAIWAN

T1A.6 Porcine Small Intestinal Submucosa is a Suitable Small Diameter Vascular Substitute
W C Toy, Y Y Gan, *S K A Law, *J H Yeo, **J J Chiu, **L J Chen, **H C Hwang
National Institute of Education, SINGAPORE
*Nanyang Technological University, SINGAPORE
**National Health Research Institutes, TAIWAN
Session T1B

Biomedical Imaging & Visualization III and Drug Discovery & Design

Date: December 12, 2006
Time: 1350 - 1550
Room: Jasmine

T1B.1 Incorporation of Active Contour without Edges in the Fast Level Set Framework for Biomedical Image Segmentation
A Lakshmanan, M Thida, K L Chan, J Zhou
Nanyang Technological University, SINGAPORE

T1B.2 Temporal and Antigenic Analysis of Dengue Virus Serotype 1 Genome Polyprotein Sequences
Institute for Infocomm Research, SINGAPORE
*Johns Hopkins University, UNITED STATES
**Johns Hopkins Singapore, SINGAPORE
***The University of Queensland, AUSTRALIA

T1B.3 Performance Evaluation of MULTIEPD1 on Prediction of MHC Class I Binders
G L Zhang, *C K Kwoh, **J T August, ***V Brusic
Institute for Infocomm Research, SINGAPORE
*Nanyang Technological University, SINGAPORE
**Johns Hopkins University, UNITED STATES
***The University of Queensland, AUSTRALIA

T1B.4 Grinding Effect on the Thermodynamic and Kinetic Characterizations of Polymorphic Transformation of Famotidine
S Y Lin, W T Cheng, M J Li, *S L Wang
Taipei Veterans General Hospital, TAIWAN
*National ChiaYi University, TAIWAN

T1B.5 Computational Models for Identifying Promiscuous HLA-B7 Binders based on Information Theory and Support Vector Machine
G L Zhang, J C Tong, Z H Zhang, *J T August, **Y Zheng, ***C K Kwoh, ***V Brusic
Institute for Infocomm Research, SINGAPORE
*Johns Hopkins University, UNITED STATES
**The University of Queensland, AUSTRALIA
***The University of Queensland, AUSTRALIA

T1B.6 BioDArt – Catalogue of Biological Data Artifact Examples
A Veeramani, K Gopalakrishnan, *V Brusic, **J L Y Koh
Institute for Infocomm Research, SINGAPORE
*The University of Queensland, AUSTRALIA
**National University of Singapore, SINGAPORE
Session T1C
Biomedical Signal Processing III

Date: December 12, 2006
Time: 1350 - 1550
Room: Lavender 1

T1C.1 Baseline Wandering Removal by using Independent Component Analysis to Single-Channel ECG data
Z Barati, A Ayatollahi
Iran University of Science and Technology, IRAN

T1C.2 Combination of Multiple Classifiers with Fuzzy Integral Method for Classifying the EEG Signals in Brain-Computer Interface
Z Shoaei, *M Esmailee, S B Shouraki
Sharif University of Technology, IRAN
*Amirkabir University of Technology, IRAN

T1C.3 Comparing Higher Order Statistics of three ICA Methods in Wavelets-based Single-channel Fetal ECG Extraction
M Poursoltani, *A Boroomand, A Ayatollahi
Iran University of Science and Technology, IRAN
*Tehran University of Medical Science, IRAN

T1C.4 VLSI Design and Simulation of a SIRM Fuzzy System - Diabetic Epilepsy Risk Level Classifier - A Case Study
R S Ponnu, *K G Kandasamy, H Rajaguru, **K P Kuppusamy
Thiagarajar College of Engineering, INDIA
*PSG College of Technology-Coimbatore, INDIA
**Bannari Amman Institute of Technology, INDIA

T1C.5 Image Denoising based on a Mixture of Bivariate Gaussian Distributions with Local Parameters in Complex Wavelet Domain
H Rabbani, M Vafadust, *S Gazor
Amirkabir University of Technology, IRAN
*Queen’s University, CANADA

T1C.6 Some Limitations of Localizing Inert Region from EEG
M Katayama, M Akutagawa, *H Nagashino, Y Kinouchi, **U R Abeyratne, ***Y Kaji, **F Shichijo
The University of Tokushima, JAPAN
*Bunri University of Tokushima, JAPAN
**The University of Queensland, AUSTRALIA
***Suzue Medical Center, JAPAN
Session T1D

Biomechanics III and Bioinformatics & Computational Biology I

Date: December 12, 2006
Time: 1350 - 1550
Room: Lavender 2

T1D.1 Biomechanical Effects of the Weight of Side Loaded Carriage in Walking - Correlation between Body Center of Mass (COM) and Joint Moments
H Choi, S Hwang, Y K Cho, S Myung, H S Kim, Y Kim
Yonsei University, KOREA

T1D.2 FE Assessment of an Interspinous Implant (ISS)
Y Zhou, T X Qiu, E C Teo, *P Dominique
Nanyang Technological University, SINGAPORE
*FlexSpine Pte Ltd, SINGAPORE

T1D.3 Discussions of Knee Joint Segmentation
Y Sun, E C Teo
Nanyang Technological University, SINGAPORE

T1D.4 A Relevance Vector Machine Based Quantitative Prediction Method for Mouse Class I MHC Peptide Binding Affinity
D Li, W Hu
Wuhan University, CHINA

T1D.5 Predition of Shared Regulatory Motifs from Upstream DNA Database for Gallus Gallus
C K Kwoh, C H Tan
Nanyang Technological University, SINGAPORE

T1D.6 A Prognosis Tool based on Hemostasis and Genetic Complementary Learning
T Z Tan, G S Ng, H C Quek, *S C L Koh
Nanyang Technological University, SINGAPORE
*National University Hospital, SINGAPORE
Session T2A
Biooptics & Biosensing I

Date: December 12, 2006
Time: 1620 - 1800
Room: Bergomont

T2A.1 Fluorescence Lifetime Imaging of Haematoxylin and Eosin-stained Cervical Tissue
C Y Fu, U S Dinish, B K Ng, V M Murukeshan, L K Seah, *S K Lim-Tan
Nanyang Technological University, SINGAPORE
*Singapore General Hospital, SINGAPORE

T2A.2 Detection of DNA Sample Fluorescence using Frequency Domain Imaging Technique
U S Dinish, L K Seah, V M Murukeshan, H Gong, N Ramalingam
Nanyang Technological University, SINGAPORE

T2A.3 ZnO/ TiO2 Core-Shell Quantum Dots Application for Colorectal Cancer Fluorescence Image
S Fu, C S Lim, *L C Kwek, *T C Chia, **C L Tang
Nanyang Technological University, SINGAPORE
*National Institute of Education, SINGAPORE
**Singapore General Hospital, SINGAPORE

T2A.4 Rapid Palm Sized-All in one Tuberculosis Screening System
A M Pariwono, C S Lim, S T Lo, *Y Amrie, *A Muchtar
Nanyang Technological University, SINGAPORE
*Hospital for Pulmonary Tuberculosis, INDONESIA

T2A.5 Rapid Porcine Diagnostic System (RPDS) for Detecting PRRS Antibodies in Swine Blood Sera
P V Preejith, P C Yip, *C E Lim, *T H Zhing, *C S Lim
Asensor Pte. Ltd, SINGAPORE
*Nanyang Technological University, SINGAPORE
Session T2B

Assistive & Rehabilitation Technology

Date: December 12, 2006
Time: 1620 - 1800
Room: Jasmine

T2B.1 Recurrent Neural Network Control of Functional Electrical Stimulation Systems
Y Wu, Q Song, X Yang, L Lan
Nanyang Technological University, SINGAPORE

T2B.2 Improvement of Esophageal Speech using LPC and LF Model
R Sirichokswad, P Chanyagorn, W Charoensuk, *P Boonpramuk, N Kasemkosin, **H H Szu
Mahidol University, THAILAND
*King Mongkut's University of Technology Thonburi, THAILAND
**Naval Research, UNITED STATES

T2B.3 Ground Truth Estimation using Multimodal Data Fusion: Proposed Methodology
P Mohan, *W S Ng, *D Shi
Singapore General Hospital, SINGAPORE
*Nanyang Technological University, SINGAPORE

T2B.4 Effect of LBP on Muscle Activity of Lower back and Upper Extremity while Aerobic Cycling – An sEMG Based Study
S Jayaraman, V Balasubramanian
Indian Institute of Technology, Madras, INDIA

T2B.5 Development of an Active Ankle Foot Orthosis for the Prevention of Foot Drop and Toe Drag
S Hwang, J Y Kim, *J Yi, K Tae, K Ryu, Y Kim
Yonsei University, KOREA
*Hanseo University, KOREA
Session T2C

Biomedical Signal Processing IV
and
Cardiovascular & Respiratory Systems I

Date: December 12, 2006
Time: 1620 - 1800
Room: Lavender 1

T2C.1 Music and the EEG: A Study using Nonlinear Methods
N G Karthick, V I Thajudin Ahamed, J Paul K
National Institute of Technology, Calicut, INDIA

T2C.2 Analysis of the Characteristics of Electrooculogram Applied a Battery Model to the Eyeball
Tokushima University, JAPAN
*-, JAPAN
**Niihama National Collage of Technology, JAPAN
***Kubo Eye Clinic, JAPAN

T2C.3 A Strong Adaptive and Comprehensive Evaluation of Wavelet Based Epileptic EEG Spike Detection Methods
R Sarang
Islamic Azad University - Science & Research Branch, IRAN

T2C.4 Measurement of Blood Flow Velocity Waveforms in the Carotid, Brachial and Femoral Arteries during Postural Change
A Azhim, M Katai, M Akutagawa, *Y Hirao, K Yoshizaki, S Obara, M Nomura, et. al.
The University of Tokushima, JAPAN
*Tokushima Pref. I.T.C., JAPAN

T2C.5 Normalized Pulse Transit Time to Assess Age-Related Changes
J Y A Foo, C S Lim
Nanyang Technological University, SINGAPORE
Session T2D

Bioinformatics & Computational Biology II

Date: December 12, 2006
Time: 1620 - 1800
Room: Lavender 2

T2D.1 Comparative Genomic Analysis Suggests FOXP3 Facilitates Tumor Evasion against Immunosurveillance by Transcriptionally Up-regulating Proteinase Inhibitor 9
X Jiang, J Cai, S Zhong
University of Illinois at Urbana-Champaign, UNITED STATES

T2D.2 Cross-correlation of DNA Sequences using Hypercomplex Number Encoding
Y Li, J J Shu
Nanyang Technological University, SINGAPORE

T2D.3 Proteomic Analysis of Ginseng
J M Yeh, W Y J Ong, *Y L K Yap
Republic Polytechnic, SINGAPORE
*Nanyang Technological University, SINGAPORE

T2D.4 A Tale of Intronless Genes in Eukaryotic Genomes
M K Sakharkar, Y Li, I Chaturvedi, P Li
Nanyang Technological University, SINGAPORE

T2D.5 A Computational Model of Ferrofluid Flow using Maxwell's Equations and Navier-Stokes Equations
M Lohakan, C Yensiri, *S Boonsang, *C Pintavirooj
King Mongkut's Institute of Technology North Bangkok, THAILAND
*King Mongkut's Institute of Technology Ladkrabang, THAILAND
Session W1A
Biooptics & Biosensing II

Date: December 13, 2006
Time: 1430 - 1530
Room: Bergomont

W1A.1 Development of an Ultra-high Sensitive Fluorescence Measurement System for Cancer Research
Tohoku Electronic Industrial Co Ltd, JAPAN
*Tohoku University, JAPAN

W1A.2 Application of Self-Assembled Monolayer of Carboxy-1-Decanethiol for Cholesterol Biosensor
P R Solanki, S K Arya, B D Malhotra, *Y Nishimura, *M Iwamoto
National Physical Laboratory, INDIA
*Tokyo Institute of Technology, JAPAN

W1A.3 Serum Albumin Measurement using a Tapered Fluorescent Fiber-Optic Evanescent Wave-based Biosensor
P V Preejith, *C S Lim, **T F Chia
Asensor Pte. Ltd, SINGAPORE
*Nanyang Technological University, SINGAPORE
**National Institute of Education, SINGAPORE
Session W1B
Targeted Drug & Gene Delivery

Date: December 13, 2006
Time: 1430 - 1530
Room: Jasmine

W1B.1 Ultrasound Mediated Gene Delivery using Bubble Containing Lipoplexes
J H Mai, R Liu, X Wei, Y B Yao, Y Xu
Shanghai Jiaotong University, CHINA

W1B.2 Peptide Ligand Targeted Delivery to EGFR Expressing Cancer Cells in Vitro and in Vivo
S X Song, D Liu, J L Peng, Y Xu
Shanghai Jiaotong University, CHINA

W1B.3 The use of Nano-structured Hybrid Materials for Oral Drug Delivery
University of Montana, UNITED STATES
*Nanyang Technological University, SINGAPORE

W1B.4 Low Molecular Weight Chitosan-Based Conjugate: A New Platform for Oral Delivery of Paclitaxel
E Lee, J Lee, S Jon
Gwangju Institute of Science and Technology, KOREA
Session W1C

Cardiovascular & Respiratory Systems II

Date: December 13, 2006
Time: 1430 - 1530
Room: Lavender 1

W1C.1 Continuous Measurement of Oxygen Saturation Level using Photoplethysmography Signal
G M Azmal, A A Al-Jumaily, M ' O Al-Jaafreh
University of Technology, Sydney, AUSTRALIA

W1C.2 Practical Swarm Optimization Based Stroke Volume Influence on Mean Arterial Pressure
M ' O Al-Jaafreh, A A Al-Jumaily
University of Technology, Sydney, AUSTRALIA

W1C.3 A Simulation Study of Arrhythmia using Computational Model
R Malathi, *M Ramasubba Reddy
Indian Institute of Technology, INDIA
*Indian Institute of Technology, Madras, INDIA
Session W1D

Bioinformatics & Computational Biology III

Date: December 13, 2006
Time: 1430 - 1530
Room: Lavender 2

W1D.1 A Genomic Level Analysis of Alcohol Producing Pathways of Zymomonas Mobilis
A P Ranjan, C S Prasad, G P Agarwal, *S Ramachandran
Indian Institute of Technology, Delhi, INDIA
*Institute of Genomics and Integrative Biology, INDIA

W1D.2 Design and Implementation of an Intelligent Agent System for Genome Data Retrieval
F Sufi, I Cosic, Q Fang
RMIT University, AUSTRALIA

W1D.3 GeneONE Portal Framework for Integrating Genome Databases, Tools, Techniques and Methods
G Mohamed Hanifa, *S P Lee
Multimedia University, MALAYSIA
*University Malaya, MALAYSIA
Session W2A

Biomaterial & Biomolecular and Cognitive Neuroscience & Neurosystems

Date: December 13, 2006
Time: 1600 - 1720
Room: Bergomont

W2A.1 Cellular Uptake Enhancement of Polyamidoamine Dendrimer Modified Single Walled Carbon Nanotubes
B Pan, D Cui, P Xu, T Huang, Q Li, R He, F Gao
Shanghai Jiaotong University, CHINA

W2A.2 Modeling of Thermal Gelation and Degelation of MC and HPMC Hydrogels
S C Joshi, Y C Lam, B K Tan, S Q Liu
Nanyang Technological University, SINGAPORE

W2A.3 Bistable Behavior in A Pair of Interacting Autorhythmic Cardiac Cell Models: Implications to Cardiac Memory
G Sachdeva, J Krishnan, V S Chakravarthy
Indian Institute of Technology, Chennai, INDIA

W2A.4 Dynamic Complexity of Cognitive Event-related Potential based on Time-dependent Approximate Entropy
N Zhao, S Wang, *X Liu, M Wan
Xi'an Jiaotong University, CHINA
*Shandong University of Science and Technology, CHINA
Session W2B

Assistive & Rehabilitation Technology II
and
Biorobotics, Surgical Robotics & Surgical Planning

Date: December 13, 2006
Time: 1600 - 1720
Room: Jasmine

W2B.1 Rapid On-Site Method to Screen Actinobacillus Pleuropneumoniae in Life Porcines
Nanyang Technological University, SINGAPORE
*Asensor Pte. Ltd, SINGAPORE

W2B.2 High Intensity Ultrasound Phased Array for Surgical Applications
M T Tan, C M Chu, S Chauhan
Nanyang Technological University, SINGAPORE

W2B.3 Modeling and Analysis of Human Spinal Feedback Control System
L Lan, K Zhu, Y Wu
Nanyang Technological University, SINGAPORE

W2B.4 Ergonomic Master Controller for Flexible Endoscopic Gastrointestinal Robot Manipulator
M T U Zin, S C Low, S W Tang, L Phee, *K Y Ho, *S C Chung
Nanyang Technological University, SINGAPORE
*National University of Singapore, SINGAPORE
Session W2C
Cardiovascular & Respiratory Systems III

Date: December 13, 2006
Time: 1600 - 1720
Room: Lavender 1

W2C.1 Exercise Training Improved Blood Flow Velocity and Autonomic Nervous Activity
A Azhim, M Katai, M Akutagawa, *Y Hirao, K Yoshizaki, S Obara, M Nomura, et. al.
The University of Tokushima, JAPAN
*Tokushima Pref. I.T.C., JAPAN

W2C.2 Blood Flow Velocities in Common Carotid Artery Changes with Age and Exercise Study by using of Telemetry Method
A Azhim, M Katai, M Akutagawa, *Y Hirao, K Yoshizaki, S Obara, M Nomura, et. al.
The University of Tokushima, JAPAN
*Tokushima Pref. I.T.C., JAPAN

W2C.3 Frequency Domain Analysis of ECG Signals using Auto-Associative Neural Networks
A Sethi, S Arora, A Ballaney
MindTree Consulting Ltd., INDIA

W2C.4 Superoxide Detection by Chemiluminescence, Fluorescence, and Spectrophotometry Methods
A P Susanto, M Firdhaosh, D A Wang, *K T Moe
Nanyang Technological University, SINGAPORE
*National Heart Centre, SINGAPORE
Session W2D

Bioinformatics & Computational Biology IV
and
Distributed Diagnosis & Home Healthcare

Date: December 13, 2006
Time: 1600 - 1720
Room: Lavender 2

W2D.1 Validating Text Mining Results on Protein-Protein Interactions using Gene Expression Profiles
D Zhou, Y He, C K Kwoh
Nanyang Technological University, SINGAPORE

W2D.2 The First Steps Towards Bone Plate Morphing: A Finite Element Model of a Bone Plate with a Micro Scratch
A C Van Der Zanden, *C S Lim
University of Twente, NETHERLANDS, THE
*Nanyang Technological University, SINGAPORE

J K Zhang, W Xu
University of Surrey, UNITED KINGDOM

W2D.4 Design and Implementation of Expert-Telemedicine System for Diabetes Management at Home
R Rudi, B G Celler
University of New South Wales, AUSTRALIA