

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 Paralyzed 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 Rezaei-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](#)
Y Li, T S Tan, *I Volkau, *W L Nowinski
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
*Respiroics 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](#)

V I Thajudin Ahamed, P Dhanasekharan, N G Karthick, J Paul K, *A Naseem, *T K Abdul Jaleel
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

I

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

- 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 Moztafzadeh
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](#)
L S Cheong, H S Seah, F Lin, C W K Yu, K Qian, *K C Soo, *P Thong, *M Olivo
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](#)
M Rajapakse, A Veeramani, K Gopalakrishnan, S Ananthanarayan, *S Kellathar N, *J T August, **A M Khan, ***V Brusic
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 Shoaie, *M Esmalee, 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 [Prediction 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
*Hanseou 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](#)

K Shinomiya, H Shiota, *Y Ohgi, **N Itsuki, *R Tabesh, *M Yamada, ***M Kubo
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](#)

R Yamada, *M Kohno, *M Takeda
Tohoku Electronic Industrial Co Ltd, JAPAN
*Tohoku University, JAPAN

W1A.2 [Application of Self-Assembled Monolayer of Carboxy-1-Decanthiol 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](#)
R Kumar, *P H Kithva, *P Cheang, *K A Khor
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](#)

A M Pariwono, *A L Chan, *P C Yip
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

W2D.3 [Web Service-based Healthcare Information System \(WSHIS\): A Case Study for System Interoperability Concern in Healthcare Field](#)

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