

MESSAGE FROM THE CHAIRMAN

On behalf of the Technical and Local Committee of the IEEE International Conference on Imaging Systems and Techniques (IST 2011), I welcome you to the beautiful Penang Island, Malaysia. Known as the "Pearl of the Orient", Penang is one of the most visited states in Malaysia. A fascinating fusion of the East and West, Penang embraces modernity while retaining its traditions and old world charm. George Town, the historic capital of Penang, was formally inscribed as a UNESCO World Heritage Site alongside with Malacca. It is officially recognized as having a unique architectural and cultural townscape without parallel anywhere in East and Southeast Asia.

This is the eighth consecutive year, following the successful IST events held previously in Stresa, Italy, Niagara Falls, Canada, Minori, Italy, Krakow, Poland, Chania, Greece, Shenzhen, China, and Thessaloniki, Greece. This event series has allowed scientists from all over the world to meet to explore the physical and engineering principles, development and applications of new imaging technologies, systems, measurements, and techniques. IST offers an informal setting devoted to the encouragement of broad discussion of imaging methodologies, shaping the future, and identifying emerging imaging trends. This workshop deals with the design, development, evaluation and applications of imaging systems, instrumentation, measuring techniques, and image processing algorithms, aimed at enhancing the detection process and image quality.

I would like to thank and highlight the outstanding efforts of the Local Committee Chair and Honorary Chair, Professor Mohd Zaid Abdullah (Universiti Sains Malaysia), and the Honorary Chair of the event, Wuqiang Yang (University of Manchester, UK); I would like to thank the Honorary Chairs Professors Maria Petrou, Informatics and Telematics Institute, Centre for Research and Technology Hellas (CERTH), Greece Konstantina Nikita, National Technical University of Athens (NTUA), Greece, and Theodore Laopoulos, Aristotle University of Thessaloniki (AUTH), Greece. In addition, my acknowledgements to: the Co-Chairs, Professors Matteo Pastorino, University of Genoa, Italy, Cesare Svelto, Polytechnic of Milan, Italy, Michalis Zervakis, Technical University of Crete, Greece, Nikolaos Iakovidis, Technological Educational Institute of Lamias, Nicolas Bourbakis, Wright State University, USA, Michele Ceccarelli, University of Sannio, Italy, George Zentai, Varian Medical Systems, USA, Dimitrios Karras, Technological Educational Institute of Chalkida, Greece, and Antonios Gasteratos, Democritus University of Thrace (DUTH), Greece; the General Coordinator of the IST Angelos Amanatiadis, DUTH, Greece, and the Secretary of the IST 2011 Jeff Petermann (The University of Akron), for their dedicated efforts.

Many thanks go to the dedicated reviewers which did an excellent job to preserve quality and promote academic excellence and scholarship. Special acknowledgements to the Workshop Administrator, Chris Dyer (Conference Catalysts, LLC) for his outstanding support and dedication. I hope you enjoy your stay in Penang Island, Malaysia, and find the 2011 IEEE International Conference on Imaging Systems and Techniques (IST2011) a rewarding opportunity for advancement of knowledge and technical competencies.

George C. Giakos

Professor

General Chairman IST 2011

Chairman TC-19 Imaging Systems

USA

General Chair IST, TC 19 Chairman

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Tuesday, May 17

7:30 AM - 9:00 AM - Registration

9:00 AM - 9:05 AM - Message from Prof. George Giakos, *IST General Chairman*

9:05 AM - 9:10 AM - Message from Prof. Mohd Zaid Abdullah, *Honorary Chairman and Local Organizer*

9:10 AM - 9:15 AM - Message from Prof. Wuqiang Yang, *Honorary Chairman*

9:15 AM - 10:00 AM

Remote Detection, Sensing and Imaging

Chair: Mohd Zaid Abdullah, *University Sains Malaysia,*

Co-Chair: Ruzairi Abd. Rahim, *Universiti Teknologi Malaysia, Malaysia*

Room: Ballroom A

9:15 Polarimetric Wavelet Phenomenology of Space Materials

George C. Giakos (The University of Akron, USA)

R. H. Picard (Air Force Research Laboratory, USA)

P.D. Dao (Air Force Research Laboratory, USA)

P.N. Crabtree (Air Force Research Laboratory, USA)

P.J. McNicholl (Air Force Research Laboratory, USA)

9:30 Angle-of-arrival Measurement System with High-frame rate CMOS Camera

Peng Liu (WASEDA University, Japan)

XueYing Wu (Changchun University of Science and Technology, China)

9:45 Influence of non-uniform flow fields on imaging deviation of side-window airborne optical systems

Liang Xu (Xi'an Jiaotong University, China)

Yuanli Cai (Xi'an Jiaotong University, China)

Electric Tomography Systems I

Chair: Wuqiang Yang, *University of Manchester, UK*

Co-Chair: Arjuna Marzuki, *Universiti Sains Malaysia, Malaysia*

Room: Ballroom B

9:15 A Fast Eddy Current Forward Solver for EMT based on Finite Element Method (FEM) And Negligibly Coupled Field Approximation

Xu Kai (Tianjin University, China)

Zhang Cao (Beihang University, China)

Weijian Mi (Shanghai Maritime University, China)

Wuliang Yin (University of Manchester, United Kingdom)

9:30 Direct Image Reconstruction for Electromagnetic Tomography by using the Factorization Method
Zhang Cao (Beihang University, China)
Lijun Xu (Beihang University, China)
Chenfeng Xu (Beijing Huasheng jincheng Science & Technology Co. Ltd., China)
Yanping Zhu (Beijing Huashengjincheng Science & Technology CO. Ltd, Beijing, China)

9:45 Visualization Imaging Software Design for Electrical Tomography
Chengyi Yang (Tianjin University, China)
Huaxiang Wang (Tianjin University, China)
Ziqiang Cui (Tianjin University, China)

10:00 AM - 11:00 AM

Remote Climate Sensing and Monitoring

Chair: *Lijun Xu (Beihang University, China)*

Co-Chair: *Asrulnizam Abdul Manaf, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

10:00 Analysis of Ozone column burden in Peninsular Malaysia retrieved from Atmosphere Infrared Sounder (AIRS) data: 2003-2009
Jasim Rajab (Universiti Sains Malaysia, Malaysia)
Mohd Zubir Mat Jafri (Universiti Sains Malaysia, Malaysia)
Fuyi Tan (Universiti Sains Malaysia, Malaysia)
Hwee-San Lim (Universiti Sains Malaysia, Malaysia)
Khiruddin Abdullah (Universiti Sains Malaysia, Malaysia)

10:15 Effective Techniques for Vegetation Monitoring of Transmission Lines Right-of-Ways
Junaid Ahmad (Universiti Teknologi Petronas, Malaysia)
Amir S. Malik (Universiti Teknologi Petronas, Malaysia)

10:30 Remote Sensing Study of the Relationship Between Cloud and Rainfall Patterns of the Tropical Cyclone on Orographic Effects
Fuyi Tan (Universiti Sains Malaysia, Malaysia)
Lim Hwee San (Universiti Sains Malaysia, Malaysia)
Khiruddin Abdullah (Universiti Sains Malaysia, Malaysia)

Electric Tomography Systems II

Chair: *Aditya Jagannatham, IIT Kanpur, India*

Co-Chair: *Arjuna Marzuki, Universiti Sains Malaysia, USM*

Room: *Ballroom B*

10:00 Boundary Reconstruction of Completely Conductive Inclusions by Electrical Resistance Tomography
Chao Tan (Tianjin University, China)
Yaoyuan Xu (Tianjin University, China)
Feng Dong (Tianjin University, China)

10:15 Image Reconstruction Based on Expectation Maximization Method for Electrical Impedance Tomography (EIT)
Qi Wang (Tianjin University, China)
Huaxiang Wang (Tianjin University, China)

10:30 Imaging gas-solids distribution in cyclone inlet of circulating fluidised bed with rectangular ECT sensor

Haigang Wang (Institute of Engineering Thermophysics, China)
Xiaofang Wang (Institute of Engineering Thermophysics, China)
Qinggang Lu (Institute of Engineering Thermophysics, China)
Yunkai Sun (Institute of Engineering Thermophysics, China)
Wuqiang Yang (The University of Manchester, United Kingdom)

11:00 AM - 11:15 AM - Coffee Break

11:15 AM - 12:00 PM

Remote Sensing and Non-Destructive Imaging Techniques

Chair: *Lea-Tien Tay, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Asrulnizam Abdul Manaf, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

11:15 Simulation on Impact of Random Attitude Measurement Errors on Point Cloud and 3D Image of ALS

Jianjun Wang (Beihang University, China)
Lijun Xu (Beihang University, China)
Xiaolu Li (Beihang University, China)
Xiangrui Tian (Beihang University, China)

11:30 Water Quality Study Using Oceansat Imagery over Penang Island

Hwee-San Lim (Universiti Sains Malaysia, Malaysia)
Fuyi Tan (Universiti Sains Malaysia, Malaysia)
Mohd Zubir Mat Jafri (Universiti Sains Malaysia, Malaysia)
Khiruddin Abdullah (Universiti Sains Malaysia, Malaysia)

11:45 Advanced Architectures for Non-Destructive Imaging within Underground Water Pipeline

Abdullah Kadri (QU Wireless Innovations Center, Qatar)
Adnan Abu-Dayya (QQU Wireless Innovations Center, Qatar)
Daniele Trincherio (Politecnico di Torino, Italy)
Riccardo Stefanelli (Politecnico di Torino, Italy)

Electric Tomography Systems III

Chair: *Zulfiqar Ali Abdul Aziz, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Arjuna Marzuki, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

11:15 Mesh Wire Tomography Combined with a Modified Sensitivity Map

Sun Qing (Tianjin University, China)
Huaxiang Wang (Tianjin University, China)

11:30 DC Bias Compensation in Digital AC-based Capacitance Measurement for ECT

Haili Zhou (Beihang University, China)
Lijun Xu (Beihang University, China)
Zhang Cao (Beihang University, China)
Jinhai Hu (Daqing Logging & Testing Services Company, China)
Xingbin Liu (Daqing Logging & Testing Services Company, China)

11:45 Soil Moisture Detection Using Electrical Capacitance Tomography (ECT) Sensor

Nurzharina Abd Karim (Universiti Teknologi Petronas, Malaysia)
Idris Ismail (Universiti Teknologi Petronas, Malaysia)

12:00 PM - 1:30 PM - Lunch

1:45 PM - 2:30 PM

Imaging Techniques I

Chair: *Lazaros Nalpantidis, Democritus University of Thrace, Greece*

Co-Chair: *Nor Ashidi Mat Isa, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

1:45 Robust 3D Vision for Robots Using Dynamic Programming

Lazaros Nalpantidis (Democritus University of Thrace, Greece)
John Kalomiros (Technological Educational Institute of Serres, Greece)
Antonios Gasteratos (Democritus University of Thrace, Greece)

2:00 Segmenting Scenes With Motion Using Ambient Illumination Invariant Imaging

Andrew U. Rutgers (University of British Columbia, Canada)
Peter Lawrence (University of British Columbia, Canada)
Robert Hall (University of British Columbia, Canada)

2:15 A Robust Crack Detection Method for Non-uniform Distributions of Coloured and Textured Image

Saad Nashat (Universiti Sains Malaysia, Malaysia)
Azizi Abdullah (Universiti Kebangsaan Malaysia, Malaysia)
Mohd Zaid Abdullah (Universiti Sains Malaysia, Malaysia)

Electric Tomography Systems IV

Chair: *Zhang Cao, Beihang University, China*

Co-Chair: *Lea-Tien Tay, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

1:45 An Application of a Regular Square Mesh in a Forward Problem Solver in Electrical Capacitance Tomography

Waldemar T. Smolik (Warsaw University of Technology, Poland)
Dariusz Radomski (Warsaw University of Technology, Poland)

2:00 Multiphase Flow Measurement by Electrical Capacitance Tomography

Wuqiang Yang (The University of Manchester, United Kingdom)
Yi Li (The University of Manchester, United Kingdom)
Zhipeng Wu (University of Manchester, United Kingdom)
Dimitrios Tsamakidis (The University of Manchester, United Kingdom)
Cheng-Gang Xie (Schlumberger Cambridge Research Ltd, United Kingdom)
Songming Huang (Schlumberger Cambridge Research Ltd, United Kingdom)
Chris Lenn (Schlumberger Cambridge Research Ltd, United Kingdom)
David Learmonth (TUV SUD NEL, United Kingdom)
Annette Cutler (Technology Initiatives Ltd, United Kingdom)

2:30 PM - 3:15 PM

Imaging Techniques II

Chair: *Vincenzo Paduano, University of Naples "Federico II", Italy*

Co-Chair: *Nor Ashidi Mat Isa, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

2:30 Comparing image reconstruction algorithms for microwave camera featuring ultra wide band sensor

Tareq Zanoon (University Sains Malaysia, Malaysia)

Mohammed S. Hathal (University Sains Malaysia, Malaysia)

Mohd Zaid Abdullah (Universiti Sains Malaysia, Malaysia)

2:45 Fully Automated Organ Bud Detection and Segmentation for Laser Capture Microdissection Applications

Vincenzo Paduano (University of Sannio Italy)

Maria Teresa De Angelis (University of Naples "Federico II", Italy)

Geppino Falco (IRGS, Italy)

Michele Ceccarelli (University of Sannio, Italy)

3:00 Image Segmentation With Cyclic Load Balanced Parallel Fuzzy C - Means Cluster Analysis

Mogana Vadiveloo (Universiti Sains Malaysia, Malaysia)

Rosni Abdullah (Universiti Sains Malaysia, Malaysia)

Mandava Rajeswari (Universiti Sains Malaysia, Malaysia)

Ahmad Abu-Shareha (Universiti Sains Malaysia, Malaysia)

Electromagnetic Modelling and Techniques

Chair: *Abhishek Das, Jadavpur University, India*

Co-Chair: *Lea-Tien Ta, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

2:30 CFD Modelling of Velocity Distribution in Tangential Coal-fired Flame

Cheng Tan (Beihang University, China)

Lijun Xu (Beihang University, China)

Xiaolu Li (Beihang University, China)

Zhongbao Wei (Beihang University, China)

2:45 Single Channel Electrical Capacitance Tomograph for Dynamic Process Visualization

Marcin Klos (Warsaw University of Technology, Poland)

Waldemar T Smolik (Warsaw University of Technology, Poland)

3:00 Approximating the distribution of flaws in magnetic materials using the generalized inverse

Hossein Ravanbod (Sharif University of Technology, Iran)

Sahar Abdollahi Jahdi (Sharif University of Technology, Iran)

Ehsan Norouzi (Sharif University of Technology, Iran)

3:15 PM - 3:30 PM - Coffee Break

3:45 PM - 4:30 PM

Medical Imaging

Chair: *Dimitrios Karras, Chalkis Institute of Technology, Greece*

Co-Chair: *Nor Ashidi Mat Isa, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

3:45 Unsupervised Colour Segmentation of White Blood Cell for Acute Leukaemia Images

Aimi Salihah Abdul Nasir (University Malaysia Perlis, Malaysia)

Mohd Yusoff Mashor (University Malaysia Perli, Malaysia)

Rosline Hassan (University Science Malaysia, Malaysia)

4:00 Efficient Semantically-Aware Annotation of Images

Dimitris K Iakovidis (Technological Educational Institute of Lamia, Greece)

Christos Smailis (Technological Educational Institute of Lamia, Greece)

4:15 Comparison of Segmentation Techniques Applied To Transrectal Ultrasound Images

Adriana Bonilla Riaño (Pontificia Universidad Javeriana, Colombia)

Hugo F. Velasco Peña (Universidade de Sao Paulo, Brazil)

Computer Tomography

Chair: *Bee Ee Khoo, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Aamir Saeed Malik, Univeriti Teknologi Petronas, Malaysia*

Room: *Ballroom B*

3:45 CT Image Based Training Tool for Positioning in Radiography

Toshinori Maruyama (Okayama university, Japan)

Hideki Yamamoto (Kibikogen Rehabilitation Center, Japan)

4:00 Evaluation of the Ability of Nonlinear Noise Reduction Filter to the Low-Contrast Object in Multi-Detector Row Computed Tomography Using a Digital Phantom and Power Spectrum

Satoshi Kondo (Okayama University, Japan)

Sachiko Goto (Okayama University, Japan)

Yuko Hyodo (Okayama University, Japan)

Toshinori Maruyama (Okayama University, Japan)

Yoshiharu Azuma (Okayama University, Japan)

Ryutaro Matsuura (Okayama University Hospital, Japan)

Keiji Inamura (Okayama University Hospital, Japan)

4:15 Development of a low-energy gamma CT system: application to two-phase pipe flow visualization

Qian Xue (Tianjin University, China)

Huaxiang Wang (Tianjin University, China)

Shan Xin (Tianjin University, China)

Kuihong Hao (Civil Aviation University of China, China)

Wednesday, May 18

9:00 AM - 10:45 AM

Optical Imaging I

Chair: *Dimitrios Chrysostomou, Democritus University of Thrace, Greece*

Co-Chair: *Bee Ee Khoo, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

9:00 Real-Time Image Processing for Edge Inspection and Defect Detection in Stainless Steel Production Lines

Carlos G. Spinola (University of Malaga, Spain)

Juan Canero (University of Malaga., Spain)

Gonzalo Moreno-Aranda (University of Malaga, Spain)

Jose M. Bonelo (Acerinox S.A., Spain)

Manuel Martin-Vazquez (University of Malaga, Spain)

9:15 Lighting Compensating Multiview Stereo

Dimitrios Chrysostomou (Democritus University of Thrace, Greece)

Lazaros Nalpantidis (Democritus University of Thrace, Greece)

Antonios Gasteratos (Democritus University of Thrace, Greece)

9:30 A Review of CMOS Analog Circuits for Image Sensing Application

Arjuna Marzuki (Universiti Sains Malaysia, Malaysia)

Zulfiqar Ali Abdul Aziz (Universiti Sains Malaysia, Malaysia)

Asrulnizam Abd Manaf (Universiti Sains Malaysia, Malaysia)

9:00 AM - 9:45 AM

Advanced Detection Techniques

Chair: *George Zentai, Varian Medical Systems, USA*

Co-Chair: *Zulfiqar Ali Abdul Aziz, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

9:00 Nonlinear Calibration of 2-D Position Sensitive Detector Applied to Interactive Projection System

Yuan Gao (Tsinghua University, China)

Zhou Qian (Graduate School at Shenzhen, Tsinghua University, China)

Kai Ni (Tsinghua University, China)

Ma Jianshe (Tsinghua University, China)

Chen Liangjun (Tsinghua University, China)

Qiao Xiaorui (Tsinghua University, China)

Lin Xirong (Tsinghua University, China)

9:15 The Geometrical Feature of Weld Defect in Assessing Digital Radiographic Image

Suhaila Abd Halim (Universiti Teknologi MARA, Malaysia)

Normi Abd Hadi (Universiti Teknologi MARA, Malaysia)

Arsmah Ibrahim (University Teknologi MARA, Malaysia)

Yupiter HP Manurung (Universiti Teknologi MARA, Malaysia)

9:30 Comparison of CMOS and a-Si Flat Panel Imagers for X-ray Imaging

George Zentai (Varian Medical Systems, USA)

9:45 AM - 10:30 AM

Optical Imaging II

Chair: *Arjuna Marzuki, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Bee Ee Khoo, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

9:45 Compensation of optical path difference for colorimetric temperature imaging

Yanting Cheng (Beihang University, China)

Lijun Xu (Beihang University, China)

Xiaolu Li (Beihang University, China)

Tao He (Beihang University, China)

10:00 Foundational Analysis of Spatial Optical Wireless Communication utilizing Image Sensor

Jiang Liu (Waseda University, Japan)

Wasinee Noonpakdee (Waseda University, Japan)

Hiroshi Takano (Waseda University, Japan)

Shigeru Shimamoto (Waseda University, Japan)

10:15 High altitude aero-optic imaging deviation prediction for a hypersonic flying vehicle

Liang Xu (Xi'an Jiaotong University, China)

Yuanli Cai (Xi'an Jiaotong University, China)

10:30 Self-calibrating Infrared Thermometer for Remote Monitoring in Cold Climates

Tim Barry (Calex Electronics Ltd, United Kingdom)

Gary Fuller (Calex Electronics Ltd, United Kingdom)

Khaled Hayatleh (Oxford Brookes University, United Kingdom)

John Lidgely (Oxford Brookes University, United Kingdom)

Breast Imaging

Chair: *Dimitris Iakovidis, Technological Educational Institute of Lamia, Greece*

Co-Chair: *Zulfiqar Ali Abdul Aziz, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

9:45 A Study on Breast Phantom Using Ultrasound Imaging Systems

Parisa Foroozandehasl (Universiti Sains Malaysia, Malaysia)

M. Suhaimi Jaafar (Universiti Sains Malaysia, Malaysia)

10:00 Log-Gabor wavelets based breast carcinoma classification using least square support vector machine

S. Issac Niwas (University of Saskatchewan, Canada)

P. Palanisamy (National Institute of Technology, India)

W.J. Zhang (University of Saskatchewan, Canada)

Nor Ashidi Mat Isa (Universiti Sains Malaysia, Malaysia)

Rajni Chibbar (University of Saskatchewan, Canada)

- 10:15 Detection of Calcification Using High-pass Filtered Phase Image in Magnetic Resonance Imaging for Breast Cancer Screening**
Katsuhiro Kida (Japanese Red Cross Okayama Hospital, Japan)
Tsutomu Kajitani (Japanese Red Cross Okayama Hospital, Japan)
Sachiko Goto (Okayama University, Japan)
Yoko Tsuji (Okayama University, Japan)
Toshinori Maruyama (Okayama University, Japan)
Yoshiharu Azuma (Okayama University, Japan)

10:30 AM - 11:00 AM - Coffee Break

11:00 AM - 12:00 PM

Biomedical Optics

Chair: *Asrulnizam Abdul Manaf, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Bee Ee Khoo, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom A*

- 11:00 Design New Detection Technique for Deposition of Radon's Daughter onto Human Blood Samples**
Asaad Hamid Ismail (Universiti Sains Malaysia, Malaysia)
Mohaamad Suaimi Jaafar (Universiti Sains Malaysia, Malaysia)
- 11:15 The Effect of Laser Wavelength in Photodynamic Therapy and Phototherapy for Superficial Skin Diseases**
Farhad Mustafa (Universiti Sains Malaysia, Malaysia)
Mohamad S. Jaafar (Universiti Sains Malaysia, Malaysia)
Asaad H. Ismail (Universiti Sains Malaysia, Malaysia)
Hend A. A. Houssein (Universiti Sains Malaysia, Malaysia)
- 11:30 Elimination of Specular reflection and Identification of ROI: The First Step in Automated Detection of Cervical Cancer using Digital Colposcopy**
Abhishek Das (Jadavpur University, India)
Avijit Kar (Jadavpur University, India)
Debasis Bhattacharyya (SKM Hospital, India)

MRI

Chair: *Nor Ashidi Mat Isa, Universiti Sains Malaysia, Malaysia*

Co-Chair: *Zulfiqar Ali Abdul Aziz, Universiti Sains Malaysia, Malaysia*

Room: *Ballroom B*

- 11:00 On MRSI image mining based on fuzzy descriptors in the wavelet domain**
Dimitrios A. Karras (Chalkis Institute of Technology, Athens, Greece)
- 11:15 Image Classification of Brain MRI Using Support Vector Machine**
Noramalina Abdullah (University Science Malaysia, Malaysia)
Uni Kalthum Ngah (University Science Malaysia, Malaysia)
Shalihaturun Azlin Aziz (University Science Malaysia, Malaysia)
- 11:30 Mandhala Magnet for Ultra Low-Field MRI**
Przemysław Wróblewski (Warsaw University of Technology, Poland)
Jan Szyszko (Warsaw University of Technology, Poland)
Waldemar T. Smolik (Warsaw University of Technology, Poland)

11:45 Efficient Compression of MRI Images Using the Discrete Wavelet Transform and a Hybrid two Stage Restoration Technique
Dimitrios A. Karras (Chalkis Institute of Technology, Athens, Greece)

12:00 PM - 1:30 PM - *Wednesday Lunch*

1:45 PM - 4:00 PM

Poster Session

Chair: *Antonios Gasteratos, DUTH*

Co-Chair: *Asrulnizam Abdul Manaf, Universiti Sains Malaysia, Malaysia*

Measurement and Imaging of Wheelchair Movement for Manual Wheelchair Users

Yoshio Tanimoto (Kibikogen Rehabilitation Center, Japan)
Kuniharu Namba (Kibikogen Rehabilitation Center, Japan)
Kazunari Furusawa (Kibikogen Rehabilitation Center, Japan)
Akihiro Tokuhiko (Kibikogen Rehabilitation Center, Japan)
Hideki Yamamoto (Kibikogen Rehabilitation Center, Japan)
Hiroyuki Ukida (University of Tokushima, Japan)

Estimation of User Satisfaction for Internet Protocol based Television (IPTV) Services

Ann De Silva (Massey University, New Zealand)
Amal Punchihewa (Massey University, New Zealand)

Level Set based image segmentation for two-phase flow parameter measurement

Leyza Dorini (Federal University of Technology - Paraná, Brazil)
Mauren Andrade (Federal University of Technology - Paraná, Brazil)
Lucia Arruda (Federal University of Technology - Paraná, Brazil)

Landslide Susceptibility Mapping of Penang Island using Probabilistic Method and Logistic Regression

Tay Lea Tien (Universiti Sains Malaysia, Malaysia)
Kevin Lim Khai - Wern (Universiti Sains Malaysia, Malaysia)
Habibah Lateh (Universiti Sains Malaysia, Malaysia)

Hierarchical DWT Based Optimal Diversity Power Allocation for Video Transmission in 4G OFDMA Wireless Systems

Sohil Mahajan (Indian Institute of Technology, India)
Aditya Jagannatham (Indian Institute of Technology, Kanpur, India)

Brain Lesion Segmentation of Diffusion-weighted MRI using Gray Level Co-occurrence Matrix

Norhashimah Mohd Saad (Universiti Teknikal Malaysia Melaka, Malaysia)
S.A.R. Abu-Bakar (Universiti Teknologi Malaysia, Malaysia)
Sobri Muda (Universiti Kebangsaan Malaysia, Malaysia)
M.M. Mokji (Universiti Teknologi Malaysia, Malaysia)
Lizawati Salahuddin (Universiti Teknikal Malaysia Melaka, Malaysia)

Object Class Recognition using Combination of Color SIFT Descriptors

Taha Rassem (Universiti Sains Malaysia, Malaysia)
Bee Ee Khoo (Universiti Sains Malaysia, Malaysia)

A Conceptual Design of Genuine Halal Logo Detector

Sharifah Nurul Wahida Sayed Mohd Albakir (Universiti Sains Malaysia, Malaysia)
Rosmiwati Mohd-Mokhtar (Universiti Sains Malaysia, Malaysia)

Hybrid Feature-Based Teeth Recognition system

Suprachaya Veeraprasit (Chulalongkorn University, Thailand)
Suphakant Phimoltares (Chulalongkorn University, Thailand)

Plant Species recognition using Leaf Contours

Hassan Hajdiab (Abu Dhabi University, UAE)

Iman Al Maskari (Abu Dhabi University, UAE)

Multilevel Thresholding for segmentation of pigmented skin lesions

Jawad Humayun (University Teknologi Petronas, Malaysia)

Aamir S. Malik (Universiti Teknologi Petronas, Malaysia)

Nidal Kamel (Universiti Teknologi Petronas, Malaysia)

An Improved Scheme for Side Information Generation in a Distributed Video Coding System

Manal Jalloul (American University of Beirut, Lebanon)

Lina Karam (Arizona State University, USA)

Adnan Al-Alaoui (American University of Beirut, Lebanon)

Frequency Domain Feature-Based Face Recognition for Different Poses and Low Resolution Conditions

Seyed Omid Shahdi (Universiti Teknologi Malaysia, Malaysia)

Syed Abu-Bakar (Universiti Teknologi Malaysia, Malaysia)

Palmpoint Identification System Using Shape Matching and K-Nearest Neighbor Algorithm

Patprapa Tunkpian (Chulalongkorn University, Thailand)

Suphant Phimoltares (Chulalongkorn University, Thailand)

Sasipa Panthuwadeethorn (Chulalongkorn University, Thailand)

Facial Expression Recognition using Graph-based Features and Artificial Neural Networks

Chaityasit Tanchotsrinon (Chulalongkorn University, Thailand)

Suphant Phimoltares (Chulalongkorn University, Thailand)

Saranya Maneeroj (Chulalongkorn University, Thailand)

Face detection in complex backgrounds based on the Integration of Neural Classifiers through Similarity Analysis of Higher Order Representation Patterns

Dimitrios A. Karras (Chalkis Institute of Technology, Athens, Greece)

4:00 PM - 5:00 PM -Round Table

Topics: IST 2011; International School on Imaging; Special Issue