Image Processing, Image Analysis and Real-Time Imaging (IPIARTI) Symposium 2014
Symposium on Acoustic, Speech and Signal Processing (SASSP) 2014

30th April 2014, Universiti Malaysia Perlis (UniMAP), Pauh Putra Main Campus, Perlis, Malaysia.

IEEE Signal Processing Society Malaysia Chapter and the School of Computer and Communication Engineering (SCCE) in collaboration with the School of Mechatronic Engineering (SME), Universiti Malaysia Perlis (UniMAP) will jointly organize the 5th Symposium on Image Processing, Image Analysis and Real Time Imaging (IPIARTI 2014) and the 2nd Symposium on Acoustics, Speech and Signal Processing (SASSP 2014), on 30th April 2014 at UniMAP Main Campus, Ulu Pauh, Perlis, Malaysia.

These yearly **FREE** events are open to all IEEE members and non-members, are organized

- to bring the university and industry community together to share and discuss the latest trends in image and signal processing, analysis and real-time implementation, and
- to promote IEEE Signal Processing Society Malaysia Chapter to the Malaysian academic and industry community as a forum for professional networking and advancement.

PROGRAM

08.30 - 09.00: Registration **(Main Auditorium, Library, Pauh Putra Campus UniMAP)**
09.00 - 09.30: Welcoming Speech
09.30 - 10.30: IEEE Membership Development and Senior Member Elevation Talk
10.30 - 11.00 Morning Tea
11.00 - 11.45: Keynote Speech #1
From abroad, IEEE DLP
11.45 - 12.30: Keynote Speech #2
Acoustic Signal Analysis and Applications
Prof. Dr. Sazali bin Yaacob, UniMAP.
12.30 - 13.15: Keynote Speech #3
Medical Imaging Research: Some Directions
Prof. Dr. Mandava Rajeswari, USM
13.15 - 14.30: Lunch and Prayer
14.30 - 15.30: Parallel Session #1A, #1B, #1C (IPIARTI)
15.30 - 16.30: Parallel Session #2A, #2B, #2C (SASSP)
16.30 - 17.15: Industrial Talk & Closing Ceremony
17.15 - 17.45: Evening Tea

Free Registration!

(Members & Non-Members)

LUNCH AND REFRESHMENTS PROVIDED!

ABSTRACT SUBMISSION FOR REGULAR PRESENTATION

Prospective researchers are invited to submit a one-page abstract (in .PDF) of their work. The presenters will receive a certificate of appreciation as an invited speaker.

Abstract submission deadline: **7th April ; Acceptance Notification: 17th April 2014**

Please email your abstract to ipiarti.sassp@unimap.edu.my

REGISTRATION

Whether you are presenting or just attending the symposium, please email the following information to *ipiarti.sassp@unimap.edu.my*.

Name: _____ **Presenter**: Yes/No

Affiliation:_____

Are you IEEE Member: Yes/No If, Yes: **IEEE Membership No.**:_____

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Accepted abstracts will be considered for ICED 2014 —> http://scce-unimap.edu.my/iced/
(The registration and full-paper submission is required)

IEEE (Malaysia Section) Signal Processing Society

http://spsocmalaysia.org

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Image Processing, Image Analysis and Real-Time Imaging (IPIARTI) Symposium 2014
Symposium on Acoustic, Speech and Signal Processing (SASSP) 2014

24th April 2014, Universiti Malaysia Perlis (UniMAP), Pauh Putra Main Campus, Perlis, Malaysia.

KEYNOTE SPEAKERS

Keynote 1: Will be announced soon

Speaker: Will be announced soon

Author's Biography: Coming soon

Synopsis: Coming soon

Keynote 2: ACOUSTIC SIGNAL ANALYSIS AND APPLICATIONS

Speaker: **Prof. Dr. Sazali bin Yaacob**, UniMAP, Malaysia

He received his BEng in Electrical Engineering from Universiti Malaya and later pursued his MSc in System Engineering at University of Surrey and PhD in Control Engineering in from University of Sheffield, United Kingdom. He has successfully supervised 8 PhD candidates and more than 20 MSc graduates through research mode. Currently, he has 10 PhD and 8 MSc candidates. His research interests are in Control, Modelling and Signal Processing with applications in the fields of satellite, bio-medical, applied mechanics and robotics. In recognition of his expertise, several research grants have been awarded to him by Ministry of Science and Technology and Ministry of Higher Education. He is the Head of Intelligent Signal Processing Research Cluster of UniMAP since 2005. In 2009 his team has successfully completed a top down research grant from MOSTI for development of an Attitude Control Subsystem for a nano-satellite. He had also participated in Research Exhibition in National level such as ITEX, MTE, PENCIPTA and also International Level in Switzerland, Germany, South Korea and Belgium. He has published more than 70 papers in Journals and 200 papers in Conference Proceedings. From 1998-2004, he was the Dean for School of Engineering and Information Technology, Universiti Malaysia Sabah and upon his transfer to Universiti Malaysia Perlis, he was given the mandate as the Dean for School of Mechatronic Engineering from 2005-2007 and also the post of Deputy Vice-Chancellorfor Academic from 2009-2010. He received his professional qualification as Charted Engineer from the Engineering Council, United Kingdom in 2005 and also a member to the Institute of Engineering and Technology, United Kingdom since 2003.

Abstract: Acoustics is the science of sound and the transmission of vibrations in gases and solids. Obtaining an acoustic signal for various applications requires signal processing. The advent of computer technology is owed by the power of microprocessor speed. Consequently, signal processing has been easier and various techniques can be adopted. From the various processing techniques we can interpret the data through a decision making process. One of the common methods and gaining popularity in this process is using artificial intelligent which in turn has a number of techniques. Here, artificial neural networks are used to provide the various classifications of the data. Finally, we will look into the use of acoustic technology in several applications such as speech recognition, voice pathology, noise control, noise signature, speech intelligibility, speech classification and sound modeling.

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KEYNOTE SPEAKERS

Keynote 3: MEDICAL IMAGING RESEARCH: SOME DIRECTIONS

Speaker : Prof. Dr. Mandava Rajeswari, USM, Malaysia

Mandava Rajeswari is a Professor at School of Computer Science, Universiti Sains Malaysia (USM), Penang. She obtained her Bachelor of Engineering (B. E) from the University of Madras; Master of Technology (M. Tech) in Electrical Engineering from the Indian Institute of Technology, Kanpur, India and PhD in Electrical Engineering specializing in Image Processing and Machine Vision from the University of Wales, UK. Currently she is the Head of Computer Vision Research Group at the School of Computer Sciences, USM. Mandava has over 25 years of experience in image analysis and for the past 12 years her focus is on medical image analysis. Her key research areas include Machine Vision, Semantic Image Analysis and Medical Image Analysis. She has trained several undergraduate and postgraduate students in the span of her 31 year career at USM. In her early career, she has developed several machine vision solutions for industrial automation to serve the semiconductor industries in Penang. She and her group has made several key contributions including Brain White Matter Lesion quantification (WML), an image analysis solution, that is recognized as the top two best solutions, by the Medical Image Computing and Computer Assisted Interventions (MICCAI) Society. One of the innovative solutions from the group is the world's first Android based real time collaborative teleradiology solution. Prof. Mandava is pioneering yet another research area at USM: Neuroimaging with specific focus on Diffusion based imaging. The primary objective of this new research is to extract the brain white matter fibre tracts and neuronetworks.

Abstract: Researching on multispectral medical images is daunting task. Handling multispectral images together with a multitude of libraries written in various languages such as MATLAB, Java and C++ adds additional challenges to this task. This presentation covers our experience in handling this challenge by integrating Information Technology and medical image research to produce impressive research prototypes. This talk then illustrates how this experience has been stretched to generating various research projects in both Medical Information Technology and Medical Imaging research. Further, this presentation talks about some of the emerging research challenges in medical imaging and then moves on to introduce the research area of Neuroimage analysis focusing on white matter fiber tracking.

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