



# IEEE



# CASS (Malaysia) Newsletter

June 2016

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### Editor-in-Chief

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# IEEE



## News & Highlights

# IEEE CAS DLP Lecture: Advances in Image/Video Compression using Graph Transforms

IEEE CAS DLP Lecture on Advances in Image/Video Compression using Graph Transforms has been presented by Assoc. Prof. Dr. Enrico Magli from Politecnico di Torino, Italy. The lecture was held on 16 May 2016 from 10:00 a.m to 12:00 p.m in the Tower Block Meeting Room, Faculty of Engineering, Universiti Putra Malaysia. The co-organizer of this lecture are the Institute of Advanced Technology and, Department of Electrical and Electronic Engineering, UPM. Prior to the lecture, Dr. Enrico and participants enjoyed the local breakfast sponsored by IEEE CAS Malaysia Chapter.

The lecture describes technically on recent developments in several areas of image and video compression employing new signal processing and computer vision techniques. After an initial discussion about the future of video compression, the talk centred on graph transforms. The presenter at first addressed the design of graph transforms achieving very good compression efficiency on both piecewise-smooth and natural images, and their application to image compression and intra-

frame video compression. Then, he introduced a new video compression paradigm that replaces macro blocks with super pixels, and employs a graph transform to encode each super pixel. Finally, he described a new and very efficient transform, called “steerable” DCT, which is able to orient the DCT basis functions spatially and spectrally so as to adapt to directional features of the block being encoded.

The participations from students, researchers and lectures are quite impressive with the total number of more than 40 participants. The session continued with Q&A after the presentation where the participants and speaker discussed technically on image processing techniques.

At the end of event, a group photo was taken and CASS Malaysia committee members accompanied the speaker for local lunch.

More detail of the event: <http://cas.ieeemy.org>

*Suhaidi Shafie*  
Vice-Chair IEEE CASS Malaysia Chapter



Group photo: Speaker and IEEE CAS DLP lecture



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## News & Highlights

# Career and Technical by Intel Malaysia Design Center

25<sup>th</sup> April 2016, a career and technical talk was given by Intel Malaysia Design Center delegates at Faculty Engineering, Universiti Putra Malaysia, Selangor. The on-campus career talk is an annual event held prior to student graduation with the objectives of to educate students on career at Intel Malaysia and sharing of advanced topics in IC design. Intel delegates consists of 8 managers and engineers from 5 Intel groups, namely Data Center Group (DCG), Device Development Group (DDG), Design and Technology Group (DTG), Intellectual Property Group (IPG) and Platform Engineering Group (PEG).

There were about 80 students with engineering, science and technology background attended the talk. In the morning session, the event started with a brief introduction about Intel Malaysia Design Center and career opportunity at Intel. Then, each group manager presented their slides, focusing mainly on various design engineering positions in respective groups job scopes and requirements, working environment and work culture, Several key-points were discussed during the talk, which include the front-end design of a chipset for

mainframe computers and cloud servers, system-on-chip design starting from RTL model to the physical design, and finally to silicon chip tape-out. The design technology solutions that are used across different design groups to improve work productivity were also discussed. In addition, IPG and PEG managers also discussed about the validation and verification on pre- and post-silicon for both processor and peripheral chipset. Lastly, Intel delegates shared the challenges for the engineering jobs such as working with teams of different time zone and working with colleagues of different countries with different cultures.

Following the session is an hour of networking session to promote deeper communication between students with the Intel delegates. Later in the afternoon session, Intel HR manager gave a talk on writing good resume and essential preparation for job interview.

The event is co-organized by IEEE CASS Malaysia chapter, IEEE COMSOC Malaysia chapter and Faculty of Engineering Universiti Putra Malaysia.

Written by: Lim Yang Wei & Tan Chee Phang



Group photo of the attendees for 2016 Career and Technical Talk by Intel Malaysia Design Center



# IEEE



## News & Highlights

# IEEE Circuits and Systems Malaysia Chapter won the 2016 World Chapter of the Year Award

Montreal, Canada May 2016: The IEEE Circuits and Systems Malaysia Chapter (IEEE CASS M) was announced as the winner of the 2016 World Chapter of the Year Award. This Chapter Annual Award Ceremony was held at ISCAS 2016, Montreal Canada. The Chapter of the Year Award recognizes the Chapter with the very best yearly activities. Therefore the 2016 World Chapter of the Year Award is based on best yearly activities in the categories of Chapter sponsored technical activities and increase in membership. IEEE Circuits and Systems Society Malaysia Chapter has received a certificate and monetary award. The Chapter now is under Dr. Nurul Amziah Md Yunus from Universiti

Putra Malaysia. She is the Chair of IEEE CASS M for the year 2015 and 2016. With this achievement, Nurul is pleased to convey her gratitude and appreciation to her team (IEEE CASS M executive committee) who contributed in different ways to the society. She also would like to express her thank you to all members of IEEE CASS Malaysia for the continuous support, cooperation and faithfulness to the society. The 2016 IEEE Circuits and Systems Society Awards can be found here: <http://ieeecas.org/about/awards/chapter-of-the-year-award> and <http://cas.ieeemy.org>.



2015 IEEE CASS M Excomm

Front (from right): Ain, Nurul, Asral and Tafir  
 Back (from right): Fakhrlul, Suhaidi, Amrallah, Hisham and Tong Boon.  
 Fawnizu - not in the photo.



2016 IEEE CASS M Excomm

Front (from right): Ain, Nurul, Suhaidi and Tong Boon  
 Back (from right): Amrallah, Tafir, Lini, Hari and Fakhrlul.  
 Fawnizu and Hisham - not in the photo.



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## Upcoming Events

# 2016 IEEE CASS (M) 4<sup>th</sup> High-Tea Networking Event

The IEEE High-Tea Networking event is in its fourth year this year being organized since its inception in 2013.

During this event, outstanding PhD and MSc dissertations as well as undergraduate senior years (final year) design projects from local universities are recognized through multiple awards.

This year event's detail as follows:

**Date:**

July 27<sup>th</sup> 2016.

**Time**

2pm-6pm

**Theme:**

Moving Forward With Internet of Things (IoT)

**Location:**

SAINS@USM, Persiaran Bukit Jambul, 11900 Bayan Lepas, Pulau Pinang, Malaysia

**Organizers:**

IEEE, IEEE CASS Malaysia Chapter, USAINS, CREST

**Objectives:**

IEEE CAS High-Tea Networking is a yearly event, which aims:

- To be a platform for intellectual interaction between IEEE members and fellows, engineers and academicians.
- To share knowledge and opportunities for collaboration.

- To promote the IEEE CAS society programs and membership.

**Target Audience**

- Industries and Research Institutes related to circuits and system.
- Government and Funding bodies
- Academicians and students from Local and International Institutions.

**Invited Speakers**

1. Mr. Kamarul Zaman Abdul Rashid, Intel Malaysia Design Center – “Moving Forward with Internet of things with UX centered Software as a Service (SaaS)”
2. Dr. Massimo Alioto, National University of Singapore – “Rethinking ‘Things’ Design-the Missing (Technology) Link in the Internet of Things”
3. Dr. Asrulnizam Abd Manaf, CEDEC USM – “Internet of Things: Opportunities and Challenges for Next-Generation Sensor Technology”

For more information, please visit [IEEE CASS \(M\) website](#). Link to past years High-Tea event: [2013](#), [2014](#), [2015](#).

Contact us: Dr Mohd Tafir Mustaffa ([mohdtafir@gmail.com](mailto:mohdtafir@gmail.com))



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## Upcoming Events

# 2016 IEEE CASS (M) 4<sup>th</sup> High-Tea Networking Event



Group photo of the attendees for 2015 Networking High Tea event



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# Upcoming Events

## Call for Award Nominations

### IEEE CAS Outstanding Doctoral/Master Dissertation Awards (Malaysia Chapter)

**Nomination Deadline: June 30, 2016**

#### **Description**

The CAS Outstanding Doctoral/Master Dissertation Awards recognize outstanding doctoral/master dissertations that have contributed to the advancement of the theory and/or applications of circuits and systems. Each award will include an honorarium and a certificate. The awardees will be invited to travel to IEEE CAS High Tea event to receive the awards.

#### **Eligibility**

The awards are for outstanding dissertations (in circuits and systems) dated within one year preceding the nomination due date (i.e. dated between August 29, 2015 and June 30, 2016). A nominee must be an IEEE CAS member at the time of nomination.

#### **Important Dates**

Submission deadline: June 30, 2016

Notification of award: July 22, 2016

Award presentation at IEEE CAS High Tea 2016

#### **Submission Procedures**

A nomination should consist of the following items:

1. Name, address, phone number, and email address of the person making the nomination (the nominator).
2. Name, address, phone number, and email address of the candidate for whom an award is recommended (the nominee).
3. A short statement (200-500 words) explaining why the nominee deserves the award in question.
4. Supporting statements from two people in addition to the nominator.
5. The nominated dissertation in an English language version.
6. A list of the nominee's publications that were used as the basis of chapters in the nominated dissertation.
7. The latest CV of the nominee.

*No nomination will be considered without items listed above.*

*The judges' decision will be final on all matters.*

Nominations should be submitted via e-mail as a zip file including the preceding items to the Award Committee Chair, Dr Lini Lee: [linilee@mmu.edu.my](mailto:linilee@mmu.edu.my)

Written by,  
*Lini Lee*

**Any contribution in terms of Advertisement and Article/Writing can be made before July 15, 2016 for August 15, 2016 issue to [fzr@upm.edu.my](mailto:fzr@upm.edu.my)**



# IEEE



## Upcoming Events

# Call for Award Nominations

## IEEE CAS Innovation Awards (Malaysia Chapter)

**Nomination Deadline: June 30, 2016**

### Description

The CAS Innovation Awards recognize outstanding final year projects that have illustrated innovation in the theory and/or applications of circuits and systems. Each award will include an honorarium and a certificate. The awardees will be invited to travel to IEEE CAS High Tea event to receive the award.

### Eligibility

The awards are for outstanding final year projects (in circuits and systems) completed within one year preceding the nomination due date (i.e. dated between August 29, 2015 and June 30, 2016). A nominee must be a full-time undergraduate from Public or Private Higher Education Institutions in Malaysia. Either the nominator or the nominee must be an IEEE CAS member at the time of nomination.

### Important Dates

Submission deadline: June 30, 2016

Notification of award: July 22, 2016

Award presentation at IEEE CAS High Tea 2016

### Submission Procedures

A nomination should consist of the following items:

1. Name, address, phone number, and email address of the person making the nomination (the nominator – must be the project main/co-supervisor).
2. Name, address, phone number, and email address of the candidate for whom an award is recommended (the nominee).
3. A short statement (less than 200 words) explaining why the nominee deserves the award.
4. The nominated project report (softcopy) in an English language version.
5. If applicable, include an outline of any market place potential and/or research and development potential.

*No nomination will be considered without items listed above.*

*The judges' decision will be final on all matters.*

Nominations should be submitted via e-mail as a zip file including the preceding items to the Award Committee Chair, Dr Lini Lee: [linilee@mmu.edu.my](mailto:linilee@mmu.edu.my)

Written by,  
*Lini Lee*