

**2014 5TH INTERNATIONAL CONFERENCE ON
INFORMATION & COMMUNICATION TECHNOLOGY
FOR THE MUSLIM WORLD (ICT4M 2014)**

rogramme Book



“Socio-Digital Transformation For The Ummah”

Riverside Majestic Hotel
Kuching . Sarawak . Malaysia
17th- 19th November 2014

Organised by :



Technical Sponsors :



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Message From

VICE-CHANCELLOR UNIMAS

Professor Dato' Dr Mohamad Kadim bin Suaidi

Vice-Chancellor

University Malaysia Sarawak (UNIMAS)



Assalamualaikum and Salam Sejahtera, Salam UNIMASku sayang.

I welcome you to the Fifth International Conference on Information and Communication Technology for the Muslims World (ICT4M). I congratulate the International Islamic University Malaysia (IIUM) and Universiti Malaysia Sarawak (UNIMAS) on this successful conference collaboration.

Collaboration between UNIMAS and IIUM has been going on for many years in various capacities and formats. To formalise one of such collaborations is the signing of a Memorandum of Understanding (MOU) between the Faculty of Computer Science and Information Technology, UNIMAS with the Kulliyah of Information and Communication Technology at the International Islamic University Malaysia. The MOU commits us to work together more closely towards our common goal, the pursuit of excellence in different areas with a deep sense of integration values in teaching, research and quality personality development of students, lecturers and staff. The MOU is a part of our Continuous Quality Improvement (CQI) strategy to periodically improve our curriculum to ensure the effectiveness of our teaching and learning activities. Our CQI strategy also focuses on research excellence and innovation in teaching and learning; internationalisation of academic programmes; human capital development; and increment of graduate employability.

I thank everyone who has poured in their dedication and effort to the fulfillment of the conference and MOU signing. I am sure UNIMAS and IIUM will continue to play an important role in strengthening research in the field of ICT, and consequently encourage continuous development and innovation not only in the state of Sarawak, but Malaysia as well.

To all participants of ICT4M, I hope you will take time to explore and enjoy the sights of Kuching and Sarawak, which you will discover that our humble home is truly unique and it is a place like no other. I wish all of you a constructive deliberation.

Message From

**DEPUTY RECTOR (RESEARCH &
INNOVATION) IIUM**

Professor Mohamed Ridza Wahiddin, PhD, DSc

Deputy Rector (Research & Innovation)

International Islamic University Malaysia (IIUM)



Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, all praises be to Allah subhanahu wata'ala

The information & Communication Technology for the Muslim World (ICT4M 2014) Conference will bring together many academics, researchers, postgraduate students and representatives from industry. More than a hundred participants from several countries, which include USA, Fiji, Thailand, Saudi Arabia, United Arab Emirates, Indonesia and Malaysia, are expected to share their latest research outputs and experiences.

On the theme of "Socio-Digital Transformation for the Ummah", ICT4M 2014 aims to forward the idea that the development and the use of advanced information and communication technology (ICT) may help improve and sustain a better social and individual life of a Muslim. Knowledge generated as the research outputs can greatly benefit the Muslim Ummah and the society at large in the spirit of "Rahmatan lil 'Alamin". In fact ICT4M 2014 this year is a result of collaboration between the Kulliyyah of Information and Communication Technology (KICT), IIUM and the Faculty of Computer Science and Information Technology (FCSIT), UNIMAS, and hopefully this collaboration will bring new research ideas for the development of a greater Ummah.

In addition, Kuching has been chosen as the location for ICT4M this year, also in conjunction with "Visit Malaysia Year 2014". It is the capital city of the state of Sarawak, situated in the Borneo Island with many surprises. Do enjoy the beauty of Kuching and Malaysia in general. May the fond memories and experiences gained by our visitors bring them back to visit this beautiful country and us.

I thank and congratulate all persons and parties involved in organising ICT4M 2014 and may Allah subhanahu wata'ala bless our efforts.

Message From Deans

Prof. Dr. Abdul Wahab Abdul Rahman
Dean, Kulliyah Information and Communication
Technology, IIUM



Dr. Johari Abdullah
Dean, Faculty of Computer Science and
Information Technology, UNIMAS



Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, all praises be to Allah subhanahu wata'ala

The theme for the 5th International Conference on Information & Communication Technology for The Muslim World (ICT4M 2014) is *Socio-Digital Transformation for the Ummah*. In this era of social media and interaction it is inevitable for Muslims to make Information and Communication Technology (ICT) as an enabler and platforms for their daily activities at home, in the office or even on the move. Human in general finds it difficult to survive without their mobile devices even for a slight moment. ICT has penetrated into our lives from laptops to mobile phones and from medical to even performing our prayers. Thus it is important for the ICT4m 2014 to bring forward the implications of ICT impacting not only the adults but also our children and the younger children going to kindergartens.

This year ICT4M 2014 provides a new avenue and it is our first collaborative effort between the Kulliyah of Information and Communication Technology (KICT), IIUM and the Faculty of Computer Science and Information Technology (FCSIT), UNIMAS. It is hope that with Allah blessings and guidance that a more fruitful collaboration between the two faculties and beyond can be achieved. The conference hopes to be the enabler for both educators and practitioners in this multi-disciplinary field of computing to gather and share with their latest research findings, services and products that can be utilised and empower the transformation of the Ummah for better well being.

The success of ICT4M 2014 depends on the effort and contribution of all involved in making ICT4M 2014 reality and with that we would like to convey our gratitude and thanks to all parties involved in planning, preparing this conference, especially the conference committee members from KICT, IIUM and FCSIT, UNIMAS. We would also like to extend our special thanks to the Sarawak Convention Bureau (SCB), CENTRIS, Sarawak Energy, Baitulmal Sarawak, the State Government of Sarawak, AIT, Mira Cake House, Leafbyte, Spicystudio, Creativcolor and other organisations that provide financial support and commitment to this conference.

Finally, we welcome you to Kuching and UNIMAS, and we hope that you will take advantage of many wonderful sights and attractions in the city, as well as the natural and man-made wonders nearby during your stay.

Message From General Co-Chairs

Assoc. Prof. Dr. Murni Mahmud, IIUM



Dr. Nadianatra Musa, UNIMAS



Assalamu'alaikum warahmatullahi wabarakatuh

It is with great pleasure we welcome all participants to the 5th International Conference on Information and Communication Technology For the Muslim World (ICT4M 2014) on 17th to 19th November 2014 in Kuching, Sarawak, Malaysia. The success of the previous four ICT4M, gathered academics, researchers, practitioners, professional and students in sharing their achievements, presenting best practices and challenges in the various fields of ICT among Muslim scholars, academicians and industrialists.

This year, ICT4M 2014 is an outcome of a synergy and remarkable collaboration between Kuliyah of Information and Communication Technology (KICT), IIUM and Faculty of Computer Science and Information Technology (FCSIT), UNIMAS. ICT4M 2014 is also co-sponsored by IEEE Malaysia Section and IEEE Computer Society.

91 papers will be presented in this year ICT4M based on the theme "Socio-Digital Transformation for the Ummah". Three keynote speakers, experts in their multi-disciplinary field will present some of their latest findings namely: Prof. Dr. Abdul Latif Haji Samian, Dr. Mazlan Abbas and Prof. Emeritus Dr. Alistair Sutcliffe. ICT4M 2014 will discuss the Socio-Digital Transformation For The Ummah: from Thoughts to Actions in a forum. The forum Panelists includes Tan Sri Prof. Dr. Mohd. Kamal Hassan, Dr. Abdul Halim Busari and Tuan Haji Kamarudin bin Hj. Dolmoin.

We thank the authors, presenters, keynote speakers, forum panelists, tutorial presenters and exhibitors for contributing to the intellectual content of the ICT4M 2014 program. We gratefully acknowledge the great support from the local and international reviewers who have done meticulous reviews. We like to record our heartfelt appreciation to all committee members from both IIUM and UNIMAS for the strong support and sacrifice to ensure the success of ICT4M 2014. Finally, we thank the Faculties at IIUM and UNIMAS and sponsors for providing various supports for the conference, forum and tutorials.

We hope the participants will enjoy ICT4M 2014 as a platform for intellectual and thought provoking discussions, building connection and strengthening networking among researchers

from several parts of the world.

Keynote Speaker 1

Prof. Dr. Abdul Latif Haji Samian
Principal Research Fellow,
Institut Alam dan Tamadun Melayu (ATMA),
Universiti Kebangsaan Malaysia



Prof. Dr. Abdul Latif Hj. Samian is currently a Professor of Philosophy and Principal Research Fellow at The Institute of The Malay World and Civilization, The National University of Malaysia (UKM). He is one of the founding members of The Center for the Promotion of Cross-Cultural Understanding USA, panel consultant for several organisations which include Dewan Bahasa dan Pustaka (History and Philosophy of Science) and Ministry of Higher Education (Islamic & Asian Civilization Course, Compulsory Course on Ethnic Relations).

He has published articles in many journals which include Technology and Medicine in Non-Western Cultures, Journal Islamic Culture, Muslim Education Quarterly, Akademika, Sains Malaysiana, Pemikir, Kesturi, Hamdard Medicus, Jawhar, Islamiyyat, Journal of General Studies, Journal of Islamic Education, VirTEC, International Journal of Transcendent Philosophy, The International Journal of Religion and Science, Journal of Axiology and Ethics, and Analecta Husserliana.

He has presented four country reports in Association of Institutions of Higher Learning (ASAIHL) conferences, topics including Lifelong Learning and Knowledge Driven Economy, group leader for Malaysian Delegates of Experts in MABBIM. He has presented academic papers at several universities such as Nanyang Technological University, Harvard University, Oxford University, University of Vienna, University of Chicago, University of Calgary, Center for Professional and Applied Ethics Australia, Kyoto University, Lingnan University, Hubei University, University of Antwerp, Belgium and School of Oriental and African Studies (SOAS), University of London.

Apart from serving as a Member of the Board of Governors, Dewan Bahasa dan Pustaka, Prof. Dr. Abdul Latif is listed in the Marquis Who's Who in the World, Principal of UKM Residential College Ungku Omar (1994-1998), Director of the Center for General Studies (1998-2008) and Director of The Institute of the Malay World and Civilization (2008-2013). He has also served as the UKM Senate member since 1998.

Keynote Speaker 2

Dr. Mazlan Abbas
Chief Executive Officer,
REDtone IOT



Dr. Mazlan is ranked No. 20th Thought Leader in IOT by 2014 Analytics Report – “The Internet of Things - Top 100 Thought Leaders”. He has 30 years of experience and accomplishments in a senior management capacity primarily accountable for R&D, Product Development Innovation & Solutions, Technology Management, Network Operations and Academia.

Before joining REDtone, he spent 8 years in MIMOS Berhad as the Senior Director Wireless Communications Cluster where he is responsible to lead, strategise and manage the Applied R&D activities in Wireless Communications technology.

He also spent 13 years in CELCOM (mobile operator), handling many senior management positions (including R&D, Billing Operations, Technology & Technical Management, Network Administration & Management, Mobile Data, Integrated Business Solutions and Mobility Solutions). Prior to Celcom, he spent 10 years as an academican at Universiti Teknologi Malaysia.

Dr. Mazlan is a frequent speaker in many major & established IT and telco conferences locally and globally. He has served as MOSTI's Technofund and Science Fund (ICT Cluster) Technical & Commercial Evaluation Committee, Industry Advisory Panel (IAP) for several local universities. Currently he is an Adjunct Professor with UTHM.

Keynote Speaker 3

Prof. Emeritus Dr. Alistair Sutcliffe
The University of Manchester



Alistair Sutcliffe (MA Cantab-Natural Sciences, PhD Wales) is currently a Professor Emeritus at the University of Manchester. He is also a Visiting Professor at University College London and School of Computing & Communications, University of Lancaster. He was a Professor of Systems Engineering, and Director of the Centre for Human Computer Interaction (HCI) Design, in the School of Informatics, University of Manchester, UK. Originally an ethologist, he has worked in the IT and finance industry, the civil service and City and Manchester Universities.

His research spans software engineering and HCI. He has managed several EPSRC research grants, co-ordinated Esprit Basic Research project 3160 IDEAL, and was technical manager of the INTUITIVE consortium. His publications include 9 books and 250 articles, of which 105 are in software engineering and 145 in HCI.

He serves on the editorial boards of several journals in the software engineering and HCI which include ACM Transactions on Computer Human Interaction, Co-editor of Special issue of ACM-TOCHI on Data Mining in HCI, International Journal of Human Computer Studies (1995-2005), Journal for Automated Software Engineering, Requirements Engineering and Co-editor of Special edition of Interacting with Computers: John Long Festschrift.

Prof. Sutcliffe is a regular referee articles for Requirements Engineering, IEEE-TOSEM, IEEE-TSE, Software and Information Technology, BCS Software Engineering Journal, Interacting with Computers, ACM-TOCHI, TOIS and HCI & SE conferences. I have refereed grant proposals for the Joint Councils HCI/Cognitive Science initiative, EPSRC, ESRC and the National Science Foundation.

He founded IFIP TC-13 Working Group 13.2 Methodology for User Centred Design, is editor of the ISO standard 14915, on Multimedia user interface design, co-chaired the ACM conference Designing Interactive Systems 2002 and is co-chair of IEEE Requirements Engineering conference in 2007. Prof. Sutcliffe was awarded the IFIP Silver Core 2000, Best paper INCOSE 2002, Best paper Requirements Engineering 2005 and Lifetime Achievement Award in Requirements Engineering 2011.

FORUM SPEAKERS AND MODERATOR



Tan Sri Prof. Dr. Mohd. Kamal Hassan
Chairman,
CENTRIS, International Islamic University Malaysia



Dr. Abdul Halim Busari
Director,
Islamic Center, Universiti Malaysia Sarawak



Tuan Haji Kamarudin bin Hj. Dolmoin
Director,
Information Management Division,
Department of Islamic Development Malaysia



Prof. Dr. Abdul Wahab Abdul Rahman (Moderator)
Dean,
Kulliyah of Information and Communication
Technology,
International Islamic University Malaysia



SCHEDULE FOR ICT4M 2014

DATE OF CONFERENCE: 17th -18th NOVEMBER 2014

DATE OF WORKSHOP: 19th NOVEMBER 2014

HOTEL: Riverside Majestic Hotel

Day 1, 17 th November 2014, Monday		
Time	Activities	Venue
08:00 am	Conference Registration	Foyer Level 3
08:30 - 08:45 am	Welcoming Remark	Sarawak Chamber 3
08:45 - 09:30 am	Keynote Speaker 1: Prof. Dr. Abdul Latif Samian ATMA, Universiti Kebangsaan Malaysia <i>Title: ICT and Philosophy: Harnessing the socio-digital transformation</i>	Sarawak Chamber 3
09:30 - 10:15 am	Keynote Speaker 2: Dr Mazlan Abbas REDtone IOT <i>Title: Internet of Things (IOT) - Benefits for the Ummah</i>	Sarawak Chamber 3
10:15 - 10:30 am	Tea Break	Foyer Level 3
10:30 - 12:00 pm	Opening Ceremony and MOU signing	Sarawak Chamber 3
12:00 - 12:45 pm	Press Conference	Deer Suite
12:00 - 12:45 pm	Keynote Speaker 3: Prof. Emeritus Dr. Alistair Sutcliffe The University of Manchester, UK <i>Title: Socio Digital Offerings for the Societal Wellbeing</i>	Sarawak Chamber 3
12:45 - 02:00 pm	Lunch	Sarawak Chamber 1
02:00 - 04:00 pm	Parallel Session 1A, 1B, 1C, 1D, 1E	Sarawak Chamber 2 Sarawak Chamber 3 Wind Suite Deer Suite Lady Suite
04:00 - 04:10 pm	Tea Break	Level 3 Foyer
04:10 - 06:00 pm	Parallel Session 2A, 2B, 2C, 2D, 2E	Sarawak Chamber 2 Sarawak Chamber 3 Wind Suite Deer Suite Lady Suite
07:45 - 10:00 pm	Conference Dinner	Grand Margherita (Poolside)

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Day 2, 18th November 2014, Tuesday		
08:30 am	Conference Registration	Foyer Level 3
08:50 - 10:50 am	Parallel Session 3A, 3B, 3C, 3D, 3E	Sarawak Chamber 2 Sarawak Chamber 3 Wind Suite Deer Suite Lady Suite
10:50 - 11:00 am	Tea Break	Foyer Level 3
11:00 - 01:00 pm	Parallel Session 4A, 4B, 4C, 4D, 4E	Sarawak Chamber 2 Sarawak Chamber 3 Wind Suite Deer Suite Lady Suite
01:00 - 02:00 pm	Lunch	Sarawak Chamber 1
02:00 - 04:30 pm	Forum: <i>Title: Socio-Digital Transformation For The Ummah: from Thoughts to Actions</i> Moderator: Prof. Dr. Abdul Wahab Abdul Rahman, IIUM Panelist 1: Tan Sri Prof. Dr. Mohd Kamal Hassan, IIUM Panelist 2: Dr Halim Busari, UNIMAS Panelist 3: Tuan Haji Kamarudin Haji Dolmoin, JAKIM	Sarawak Chamber 3
04:30 - 04:40 pm	Tea Break	Foyer Level 3
04:40 - 05:00 pm	Closing Ceremony	Sarawak Chamber 3

Day 3, 19th November 2014, Wednesday FCSIT, UNIMAS		
Time	Activities	Venue
09:00 am	Tutorial Registration	FCSIT, UNIMAS
09:30 am - 12:30 pm	Parallel Sessions: Tutorial 1: Prof. Dr. Abdul Wahab Tutorial 2: Prof. Emeritus Dr. Alistair Sutcliffe	General Lab 2 Teaching Lab 1
12:30 - 02:00 pm	Lunch	Staff Lounge, FCSIT, UNIMAS
02:00 - 05:00 pm	Tutorial 3: Asst. Prof. Dr. Norsaremah	General Lab 2



TENTATIVE PROGRAMME: OPENING CEREMONY ICT4M 2014

SARAWAK CHAMBER 3

Riverside Majestic Hotel

Time	Activities
10:25 - 10:30 am	Arrival of VIPs
10:30 - 10:40 am	Songs: Negaraku
10:40 - 10:45 am	Quran and Du'a Recitation
10:45 - 10:55 am	Welcoming Speech Prof. Dr. Mohamed Ridza Wahidin, Deputy Rector (Research And Innovation), International Islamic University Malaysia
10:55 - 11:10 am	Opening Speech Prof Dato' Dr Mohamad Kadim bin Suaidi, Vice Chancellor, Universiti Malaysia Sarawak
11:10 - 11:20 am	Gimmick and Multimedia Presentation
11:20 - 11:40 am	Signing of MOU between International Islamic University Malaysia and Universiti Malaysia Sarawak
11:40 - 11:50 am	Token of Appreciation
11:50 - 12:00 pm	Photo Session
12:00 pm	Press Conference & End of Ceremony

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TENTATIVE PROGRAMME: CLOSING CEREMONY ICT4M 2014

**SARAWAK CHAMBER 3
Riverside Majestic Hotel**

Time	Activities
04:40 - 04:45 pm	Closing Remark
04:45 - 04:55 pm	Awards Giving
04:55 - 05:00 pm	Du'a Recitation



COMMITTEE MEMBERS

Honorary Chairs

Prof. Dato' Sri Dr. Zaleha Kamaruddin,
Rector of IIUM

Prof. Dato' Dr. Mohamad Kadim bin Suaidi,
Vice-Chancellor of UNIMAS

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Dr Johari Abdullah, UNIMAS

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Dr. Nadianatra Musa, UNIMAS

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Dr. Ahmed Zeki, University of Bahrain
Prof. Dr. Nor Shahriza Abd Karim, Prince Sultan University
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Sr. Dini Handayani, IIUM

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Dr. Zahidah Zulkifli, IIUM
Dr. Nadianatra Musa, UNIMAS

Keynote Speaker

Assoc. Prof. Dr. Normaziah Abdul Aziz, IIUM
Assoc. Prof. Dr. Muhamad Fauzan Noordin, IIUM
Dr. Shuhaili Talib, IIUM
Dr. Adnan Shahid Khan, UNIMAS

Tutorial

Dr. Mohamed Jalaldeen Mohamed Razi IIUM
Dr. Shuhaili Talib, IIUM
Dr. Halikul Lenando, UNIMAS
Dr. Mohamad Nazim Jambli, UNIMAS
Dr. Irwandi Hipni b Mohd Hipiny, UNIMAS
Sr. Rosita Mohamed Othman, UNIMAS

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Floor Manager

Sr. Noor Azian Mohamad Ali, IIUM
Dr. Mohammad Hossin, UNIMAS

Opening Ceremony

Br. Syed Tahir Syed Mohamed, IIUM
Pn. Dayang Hanani Abang Ibrahim, UNIMAS
Pn. Seleviawati Tarmizi, UNIMAS
Pn. Inson Din, UNIMAS
Br. Norfadzlan Yusup, UNIMAS
Sr. Noor Hazlini Borhan, UNIMAS
Dr. Nuha Loling Othman, UNIMAS
Sr. Azlina Bt Ahmad Julaihi, UNIMAS
Hj. Ahmad Hadinata Bt Pauzi, UNIMAS

Dinner Program

Dr. Zainatul Shima Abdullah, IIUM
Pn. Dayang Hanani Abang Ibrahim, UNIMAS
Pn. Seleviawati Tarmizi, UNIMAS
Pn. Inson Din, UNIMAS
Br. Norfadzlan Yusup, UNIMAS
Sr. Noor Hazlini Borhan, UNIMAS
Dr. Nuha Loling Othman, UNIMAS
Sr. Azlina Bt Ahmad Julaihi, UNIMAS

Forum/Closing Ceremony

Assoc. Prof. Dr. Akram M.Z Khedher, IIUM
Dr. Aznan Zuhid Saidin, IIUM
Br. Muhd. Rosydi Muhammad, IIUM
Sr. Noor Azian Mohamad Ali, IIUM
Dr. Mohammad Hossin, UNIMAS
Dr. Hamimah Ujir, UNIMAS

Logistic/Exhibition

Sr. Noor Azian Mohamad Ali, IIUM
Dr. Zulkefli Muhammed Yusof, IIUM
Dr. Normi Sham Awang Abu Bakar, IIUM
Dr. Rizal Mohd Nor, IIUM
Br. Aminuddin Mat Resat, IIUM
Dr. Dayang Nurfatimah Bt Awang Iskandar, UNIMAS
Dr. Azman Bujang Masli, UNIMAS
En. Adam Francis, UNIMAS
Pn. Yanti Rosmunie Bujang, UNIMAS
Pn. Suhaila Saee, UNIMAS
En. Abdul Rahman Mat, UNIMAS

**Promotion**

Dr. Amelia Ritahani Bt. Ismail, IIUM
Dr. Noor Azizah Bt. Mohamadali, IIUM
Dr. Suhaila Binti Samsuri, IIUM
Dr. Nadianatra Musa, UNIMAS

Registration

Dr. Lili Marziana Binti Abdullah, IIUM
Dr. Azlin Binti Nordin, IIUM
Pn. Rosita Mohamed Othman, UNIMAS

Schedule/Program Book

Dr. Norsaremah Salleh, IIUM
Dr. Asma Md Ali, IIUM
Dr. Adamu Abu Bakar Ibrahim, IIUM
Sr. Dini Handayani Oktarina, IIUM
Dr. Hamimah Ujir, UNIMAS

Speech Preparation

Assoc. Prof. Dr. Abdul Rahman Ahlan, IIUM
Assoc. Prof. Dr. Normaziah Abdul Aziz, IIUM
Dr. Aznan Zuhid Saidin, IIUM
Dr. Basri Hassan, IIUM
Br Jamaluddin Ibrahim, IIUM
Dr Dayang Nurfatimah Bt Awang Iskandar, UNIMAS

Paper Review/Proceeding

Assoc. Prof. Dr. Mira Kartiwi, IIUM
Dr. Ishaq Oyebisi Oyefolahan, IIUM
Dr. Adamu Abubakar Ibrahim, IIUM
Dr Dayang Nurfatimah Bt Awang
Iskandar, UNIMAS

Presenter/Paper Award

Prof. Dr. Husnayati Hussin, IIUM
Prof. Dr. Asadullah Shah, IIUM
Prof. Dr. Abu Osman Md Tap, IIUM
Assoc. Prof. Dr Imad Fakhri Taha Alshaikhli, IIUM
Dr. Adnan Shahid Khan, UNIMAS
Dr. Mohammad Hossin, UNIMAS

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Prof. Dr. Asadullah Shah, IIUM
Prof. Dr. Mohd Adam Suhaimi, IIUM
Prof. Dr. Abu Osman Md Tap, IIUM
Assoc. Prof. Dr. Mira Kartiwi, IIUM
Assoc. Prof. Dr. Yushiana Mansor, IIUM
Assoc. Prof. Dr. Imad Fakhri Taha Alshaikhli, IIUM
Assoc. Prof. Dr. Normaziah Abdul Aziz, IIUM
Assoc. Prof. Dr. Abdul Rahman Ahlan, IIUM
Dr. Al-Sakib Khan Pathan, IIUM
Dr. Lili Marziana Binti Abdullah, IIUM
Dr. M.M. Hafizur Rahman, IIUM
Dr. Normi Sham Awang Abu Bakar, IIUM
Dr. Ali Amer Alwan Al-Juboori, IIUM
Dr. Sherzod Turaev, IIUM
Dr. Kartinah Zen, UNIMAS
Dr. Adnan Shahid Khan, UNIMAS



LIST OF REVIEWERS

International:

- Abdul Rehman Gilal, Sukkur Institute of Business Administration, Pakistan
- Aries Susanto HT (IEEE Member), UIN Syarif Hidayatullah Jakarta, Indonesia
- Husni Teja Sukmana (IEEE Member), UIN Syarif Hidayatullah Jakarta, Indonesia
- Mohammad Abdur Rashid, Massey University, Auckland, New Zealand
- Mustafa A. Kamal, University of Central Missouri, USA
- Nashrul Hakiem (IEEE Member), UIN Syarif Hidayatullah Jakarta, Indonesia
- Paul Krause, University of Surrey, Guildford, Surrey, UK
- Sakirin Tam, Fatoni University, Thailand
- Wong Kok-Seng, Soongsil University, Korea
- Zeashan Khan (IEEE Member), Riphah International University, Islamabad

National:

- Abdul Rahman Ahlan, International Islamic University Malaysia
- Abdul Rahman Ahmad Dahlan, International Islamic University Malaysia
- Abdul Wahab Abdul Rahman (IEEE Member), International Islamic University Malaysia
- Adamu Abubakar Ibrahim, International Islamic University Malaysia
- Afidalina Tumian (IEEE Member), International Islamic University Malaysia
- Ahmad Rafi Mohamed Eshaq, Multimedia University, Malaysia
- Akram Mzm Khedher (IEEE Member), International Islamic University Malaysia
- Al-Sakib Khan Pathan (IEEE Member), International Islamic University Malaysia
- Ali Amer Alwan Al-Juboori, International Islamic University Malaysia
- Asadullah Shah, International Islamic University Malaysia
- Asma Md Ali, International Islamic University Malaysia
- Asmala bin Ahmad (IEEE Member), Universiti Teknologi Malaysia, Malaysia
- Azaliza binti Zainal, Universiti Selangor, Malaysia
- Azlin Nordin (IEEE Member), International Islamic University Malaysia
- Balamuralithara a/l Balakrishnan (IEEE Member), Universiti Pendidikan Sultan Idris, Malaysia
- Burairah Hussin, Universiti Teknologi Malaysia, Malaysia
- Cheah Wai Shiang, Universiti Malaysia Sarawak, Malaysia
- Dayang Nurfatimah Awang Iskandar (IEEE Member), Universiti Malaysia Sarawak, Malaysia
- Deshinta Arrova Dewi, INTI International University, Malaysia
- Farahwahida Mohd, Universiti Kuala Lumpur, Malaysia
- Halikul Lenando, Universiti Malaysia Sarawak, Malaysia
- Hamidah Ibrahim, Universiti Putra Malaysia
- Hamwira Yaacob (IEEE Member), International Islamic University Malaysia
- Hanif Baharin, Universiti Teknologi MARA, Malaysia
- Hannyzzura Affal (IEEE Member), Universiti Malaya, Malaysia
- Haruna Chiroma M (IEEE Member), Universiti Malaya, Malaysia
- Hawa Ahmad, International Islamic University Malaysia
- Husnayati Hussin, International Islamic University Malaysia
- Ibrahim Ahmad, Universiti Teknikal Malaysia Melaka, Malaysia
- Imad Fakhri Al Shaikhli (IEEE Member), International Islamic University Malaysia
- Ishaq Oyefolahan, International Islamic University Malaysia
- Iskandar bin Ishak (IEEE Member), Universiti Putra Malaysia
- Jasni Bin Ahmad, Universiti Utara Malaysia
- Johari Abdullah, Universiti Malaysia Sarawak, Malaysia
- Juliana Aida Abu Bakar, Universiti Utara Malaysia
- Kamaruddin Mamat (IEEE Member), Universiti Teknologi MARA, Malaysia
- Kartinah Zen, Universiti Malaysia Sarawak, Malaysia

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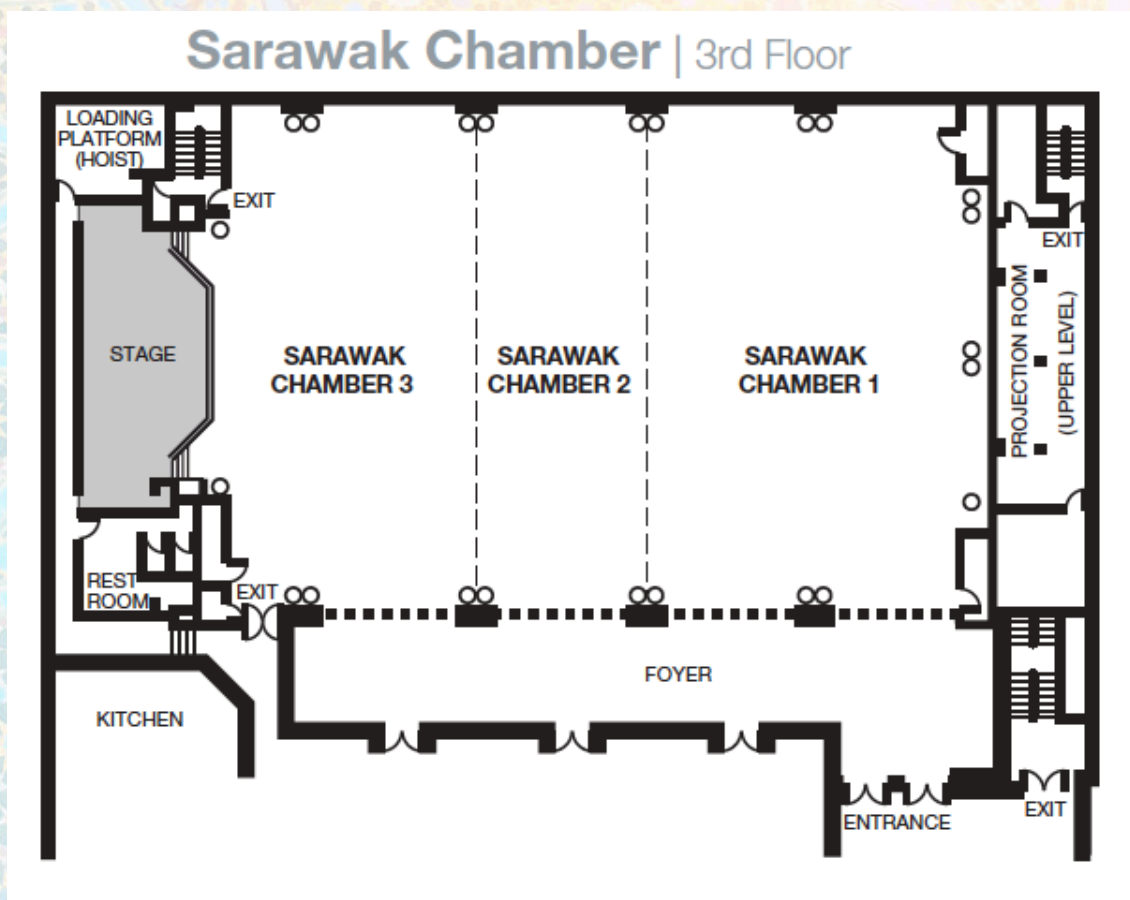
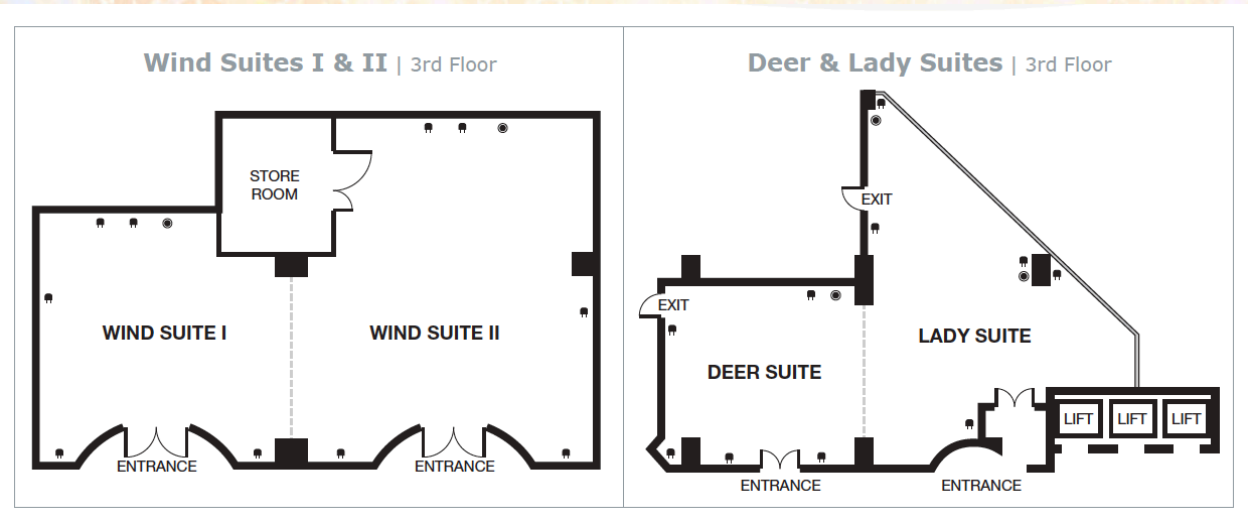


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