

CONFERENCE • EXHIBITION • WORKSHOPS

ABU DIGITAL BROADCASTING SYMPOSIUM 2017

DIGITISE, DIGITALISE & DOMINATE

6–9 March 2017

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Momentum builds for DAB+ in Asia Pacific

WorldDAB has ramped up its activity in Asia Pacific, as interest in digital radio continues to grow following the world's first digital radio switchover from FM to DAB+ in Norway on 11 January.

DAB+ services are now on air in over 36 countries, including several in Asia Pacific. Australia leads the way with 3.6 million listeners across the five metropolitan capital cities and the regional rollout of DAB+ is now under way. There are DAB+ trials on-air in New Zealand, Indonesia and Malaysia, with further DAB+ trials planned in 2017 for Myanmar, Sri Lanka and Thailand.

A DAB+ pavilion will be a major feature at this year's ABU Digital Broadcasting Symposium, offering expert advice and assistance from supply chain companies with a footprint in the Asia Pacific region. WorldDAB will also run a DAB+ workshop on Monday March 6th, providing an update on global trends and exploring with participants how DAB+ can safeguard the future of radio, offering greater choice to the listener and a reliable, lower cost distribution for broadcasters.

With DAB+ radios available from US \$16 and the automotive market going from strength to strength, 2017 will see more DAB+ trials announced in Asia Pacific. WorldDAB's stronger presence in the region can help broadcasters and regulators in the planning and preparation for the switch from FM to DAB+.

To stay in touch with WorldDAB and hear the latest news on DAB+ trials and services, subscribe to the WorldDAB Weekly Industry Newsletter at www.worlddab.org

DAB+ at ABU DBS 2017

6th - 9th March, Kuala Lumpur, Malaysia



DAB+ Workshop

Taking place Monday 6 March covering:

- International DAB+ update
- Norway's digital switchover
- Hybrid radio
- DAB+ in smartphones
- Commercial radio business case for DAB+
- Q&A session on regulation, technical aspects and content on DAB+

DAB+ Experts

DAB+ experts will speak in various sessions throughout the event, covering the DAB+ business case, feature enhancements, spectrum efficiencies, opportunities for new content on DAB+, hybrid radio, DAB+ infrastructure and cost savings

DAB+ Pavilion

WorldDAB will present a DAB+ pavilion in collaboration with DAB+ supply chain companies with a footprint in the Asia Pacific region – Connects2, Factum Radioscape, GatesAir, IZT, Paneda and RadioDNS.

To book a meeting contact: projectoffice@worlddab.org





Message from the ABU Secretary-General

A very warm welcome to you once again to the 13th edition of the ABU Digital Broadcasting Symposium and to the wonderful city of Kuala Lumpur. We highly appreciate your participation in this annual event and a special thanks to all our partners and supporters who make the DBS event possible every year.

The ABU is a not for profit, non-government, professional association of broadcasting organisations. We facilitate the development of broadcasting in the Asia-Pacific region and we also organise co-operative activities amongst our members, currently more than 275 members in 69 countries.

The broadcasting industry is very dynamic and is not showing any slowdown in its development. Every year we continue to see many new technologies and advanced solutions which help in making the process of creating and delivering media more productive and efficient. The past year was no different and you will see many such new technologies and solutions presented at this DBS. The growing strength of internet based platforms like OTT and IBB, IP based broadcast technologies and solutions for improving user experience and interaction are notable examples.

With the theme "Digitise, Digitalise and Dominate", the symposium will attempt to emphasise the importance of embracing digital technologies and solutions. The advantages of implementing digital in every aspect of the broadcast and media value chain outweigh the initial struggles and investment. The benefits in terms of operational efficiency, quality and cost-effectiveness are many folds. However, many broadcasters in the region still have a long way to go in reaping the benefits of these digital technologies. There is a growing gap between the advanced broadcasters and the smaller or developing broadcasters creating a noticeable digital divide. Through the deliberations and discussion within the conference and workshops the symposium will try to address these issues and share experiences of how other broadcasters have addressed these.

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Two key areas the symposium will also focus on other than the digital transition, are IP based production systems and workflows, and Cyber Security. With more and more of media content and its operations relying heavily on internet connectivity it is crucial that these networks are completely secure from cyber-attacks. Also notable is the continued emphasis on the new enhancements that will provide better quality of experience and the immersive feel to the audience. Technologies such as high dynamic range, high frame rate, multichannel audio and better picture quality with 4K and 8K Ultra HD are all geared to provide a better, smoother and richer media experience than ever before. A glimpse of some of these advanced technologies are available through our industry partners for you to experience.

We are confident that the participants will receive valuable benefits from the discussions and interactions scheduled throughout the event programme. This is an excellent opportunity for you to network with industry experts and fellow colleagues who can help you chart your way to leverage the digital advantage and become a dominant player in the market place.

We are happy to welcome participants from across the globe, and I wish you a very productive and a successful conference.

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WorldDAB is committed to assisting broadcasters and regulators in the Asia-Pacific region by sharing best practices and key learnings.

Join us for a DAB+ workshop on 6 March to learn more about how to launch DAB+ in your market.

Workshop programme

- International DAB+ developments
- Business case for implementing DAB+
- Introduction to hybrid radio
- DAB+ in smartphones
- DAB+ implementation case studies
- Norway's digital switch over – progress report

Working session

Three breakout groups in which participants will be invited to focus on three aspects of digital radio:

- Regulation
- Technology
- Developing new content on DAB+

A summary of the discussions in the working session will be published after the event.

Speakers

- **Joan Warner**, Vice President and Asia Pacific Committee Chair, WorldDAB and CEO, Commercial Radio Australia
- **Lindsay Cornell**, Technical Committee Chair, WorldDAB and Principal Systems Architect, BBC
- **Nick Piggott**, Project Director, RadioDNS
- **Jørn Jensen**, Senior Advisor, NRK
- **Dr Les Sabel**, WorldDAB Technical Committee and Consulting Engineer, Commercial Radio Australia
- **Steve Ahern**, Editor, RadiInfo and MD, Ahern Media Training
- **Bernie O'Neill**, Project Director, WorldDAB

Visit WorldDAB at booth 4 to arrange a one-to-one meeting with a DAB+ expert



Monday, 6 March

Parallel Workshops - page 16

Venue: Taming Sari 3

From Network Planning to the Living Room – How to Set Up a DTT Network

09:30-09:40	Introduction Dr Peter Siebert , Executive Director, DVB Project Office
09:40-09:55	Basics of Network Planning Mr Milos Pavlovic , Sales Director Broadcast LS telcom AG, Germany
09:55-10:10	Encoding and Multiplexing Mr Nils Ahrens , Area Sales Manager, Rohde & Schwarz
10:10-10:25	DVB-T2 Gateways Mr Colin Prior , Asia-Pacific Sales Manager, Enensys Technologies
10:25-10:40	Transmitter Fundamentals Mr Rinaldo Mazzone , Head of Research and Development, Syes s.r.l
10:40-10:55	DTT Monitoring Mr Simon Tsang , Asia-Pacific Sales Manager, Test-Tree c/o Enensys Technologies
10:55-11:10	TV Reception Mr Muzaffar Fakhruddin , Head of Asia R&D, Sony Malaysia
11:10-11:30	Coffee Break
11:30-13:00	Hands-on Demonstration provided by all speakers - End of workshop
13:00-14:00	Lunch

Venue: Taming Sari 3

Parallel Workshops - page 16

DAB+ Expansion in the ASIA-PACIFIC

12:30-13:30	Workshop Registration
13:30-14:10	Opening Welcome Ms Joan Warner , Vice President and Asia-Pacific Chair, WorldDAB and CEO Commercial Radio Australia
14:10-14:30	International update – Progress with Digital Switch Over in Europe – WorldDAB strategic focus for Asia-Pacific – Latest WorldDAB technical developments Speakers: Ms Bernie O’Neill , Project Director, WorldDAB Mr Lindsay Cornell , Technical Committee Chair WorldDAB & Principal Systems Architect, BBC
14:30-14:50	Introduction to Hybrid Radio – Why hybrid gives digital radio the best of IP and broadcast – DAB+ hybrid in vehicles Speaker: Mr Nick Piggott , Project Director, RadioDNS
15:10-15:40	Implementing DAB+: Business Case studies – Commercial Radio Business case – Ms Joan Warner , CRA – Public radio business case - Norway Case study digital switch over – Mr Jørn Jensen , Senior Advisor, NRK Norway
15:40–16:00	Coffee Break
16:00-16:40	Questions and Answer Break Out Groups Group discussion will identify the common challenges in planning for digital radio migration Regulation and Policy Group Moderators: Ms Joan Warner , CRA Mr Jørn Jensen , Senior Advisor, NRK Norway Technical Group Moderators: Mr Lindsay Cornell , TC Chair WorldDAB & Principal Systems Architect, BBC Dr Les Sabel , WorldDAB TC & Consulting Engineer, CRA Content Group Moderators: Mr Steve Ahern , Editor, RadiInfo and MD, Ahern Media Training Mr Nick Piggott , Project Director, RadioDNS
16:00 - 16:55	Breakout Group output summaries
16:55 - 17:00	Closing remarks

Monday, 6 March

Parallel Workshops - page 15

Venue: Taming Sari 2

New Media Masterclass: Transmedia Storytelling and Audience Engagement

Trainer: **Ms Madiana Asseraf**, Senior Online Development Manager, EBU

09:00 - 09:30	Introductions and objectives
09:30 - 12:00	MODULE 1: RE-DEFINING MEDIA CONTENT FOR MULTI-SCREEN UNIVERSE – Expanding existing content for multi-platform presentation – Using the transmedia tools and concepts to enhance your content Guest Speaker: Mr Steve Ahern , Editor, RadiolInfo and MD, Ahern Media Training
11:00 - 11:30 Coffee Break	
12:00-15:30	MODULE 2: INNOVATIVE STORYTELLING FOR THE INTERNET GENERATION – New ways of telling stories for audiences: how to tell a story using different media and giving the story multiple layers – Exploring the realm of transmedia storytelling – Essential steps to develop your story and carry out a successful transmedia project Guest Speakers: Ms Keiko Bang , Bang Productions-Singapore Ms Ayako Takada , NHK-Japan
13:00 - 14:00 Lunch Break	
15:30 - 16:00	Coffee Break
16:00 - 17:00	MODULE 3: ENGAGING YOUR AUDIENCE IN THE NEW MEDIA ENVIRONMENT – Know your audience: The role of your audience and their expectations – How to match your audience, your content, and your platforms – Forge better relationship with your audiences – Audience analytics Guest Speaker: Ms Marini Ramlan , Primeworks Studios-Malaysia
17:00 - 17:30	Key learnings and wrap-up – Discuss what you learned – Consider how you can use these learnings in your work – Exchange ideas with other participants

Tuesday, 7 March

Venue: Taming Sari 3

Tun Sri Lanang 1

14:00 - 15:30	WORKSHOP 1 – Dell EMC Create, Manage, Deliver & Measure – Advanced Media Infrastructure Architecture Dell EMC has broad experience working with leading organisations and solution providers across the media and entertainment industry. Join Chief Technology Officer Charles Seviar for this in-depth workshop on the architecture of a cost-optimised solution that delivers on the promise of an “All-IP” media infrastructure. This covers the end to end media workflow of content ingest & creation, content management & archive, content delivery (both broadcast & OTT) and advanced analytics improving viewer measurement and reporting Mr Charles Seviar , CTO Scale Out Storage, Dell EMC	DOLBY Workshop 14:00 - 14:45 Digital TV: Dolby 5.1 Content Production Workflow Mr Vikram Joglekar , Senior Content Manager, Dolby Laboratories
15:30 - 16:15	Tea Break & Networking	14:45 - 15:30 OTT: Delivery of Enhanced Audio Experience Over OTT Mr Jayant Shah , Director, Apps and Solutions Engineering, Dolby Laboratories
16:15 - 17:30	WORKSHOP 2 –DRM Digital Radio Mondiale - Practical Implementation for Success Digital Radio Mondiale (DRM) is currently being rolled-out successfully by All India Radio in India and project have started in Pakistan (full DRM in AM and VHF). DRM is being strongly considered in other Asian countries and in South Africa, Zimbabwe, Mozambique in Africa. Once the decision by a country to adopt DRM and to implement the standard has been made, the hard work starts to order and acquire transmitters or update existing ones as well as acquiring other ancillary equipment.	DOLBY Workshop 16:15 - 17:00 Next Generation Experiences: Dolby Vision and Dolby Atmos Mr Jerry Gui , Senior Staff Solutions Engineer, Dolby Laboratories
		17:00 - 17:45 HbbTV: Interactive Digital TV Feature and Case Study Mr Jerry Gui , Senior Staff Solutions Engineer, Dolby Laboratories

Wednesday, 7 March

16:15 - 17:30 WORKSHOP 2 – DRM

Parallel
Conference
Session 4:
Technologies
for Inclusive
Broadcasting

In the DRM workshop specialists from UK, Germany, Indonesia will tackle practical questions linked to such a major national project starting with the formation of a dedicated stakeholder committee focused on the project and able co-ordinate all major steps towards successful completion of digitisation. The aim of the DRM workshop is to offer a concise and practical way of understanding what DRM digital radio is and how to roll it out successfully, on budget and on time.

This is a workshop with a difference! We have the questions and you have the answers. Come, learn and enjoy!

Mr Alexander Zink, Senior Business Development Manager, Fraunhofer
Ms Ruxandra Obreja, DRM Consortium Chairman, Digital Radio Mondiale
Mr Lindsay Cornell, Principal Systems Architect, BBC Digital
Key personnel of RRI Indonesia

Wednesday, 8 March

Venue: Taming Sari 3

09:00 - 10:30

Parallel
Conference
Session 5:
Innovating
the Audio
Experience

WORKSHOP 3 – SOLID STATE LOGIC

Professional Audio over IP: The Way Forward

A presentation that looks at the history of Audio Over IP, where it's heading and why manufacturers like SSL have had to make some key decisions. There will be examples of applications and installations, and we will engage with the question as whether it will become a common protocol across the entire audio industry.

Mr Anthony Gofton, Vice President, Asian Sales, Solid State Logic

10:30 - 11:15

Tea Break & Networking

11:15 - 13:00

Parallel
Conference
Session 6:
Immersive
Media:
Future of TV
Experience

WORKSHOP 4 – JAA System

Smart Audio is the way forward for live audio production and post production in all fields of professional audio content creation

Amongst all the various elements broadcasters have to handle including video, graphics, data, captions and subtitles, the importance of audio should not be underestimated. One aspect that is particularly important to pay attention to is speech intelligibility. In today's file based environment, the task of creating good audio, especially dialog, involves many techniques. Appropriate microphone choice and placement, post-production techniques and a myriad of software tools that can analyse and enhance faster than real time. In a live broadcast situation however, things are very different.

A feed from an outside broadcast needs to be combined with a local studio presenter. Audio levels cannot be assumed to be consistent with each other and may not be compliant with relevant loudness standards. The answer is to utilize real time processing algorithms that are both intelligent and adaptive, a solution that creates the future way of producing audio as part of live media content for all kind of distribution and delivery - that is Smart Audio. The workshop will explain and show the basics of the concept as well as demonstrate some real use cases where the concept has been brought to work.

Mr Peter Poers, Managing Director, Jünger Audio GmbH

13:00 - 14:00

Lunch & Networking

Tun Sri Lanang 1

DOLBY Workshop

09:00-09:45

Digital TV: Dolby 5.1 Content Production Workflow

Mr Vikram Joglekar, Senior Content Manager, Dolby Laboratories

09:45-10:30

OTT: Delivery of Enhanced Audio Experience Over OTT

Mr Jayant Shah, Director, Apps and Solutions Engineering, Dolby Laboratories

DOLBY Workshop

11:30-12:15

Next Generation Experiences: Dolby Vision and Dolby Atmos

Mr Jerry Gui, Senior Staff Solutions Engineer, Dolby Laboratories

12:15-13:00

HbbTV: Interactive Digital TV Feature and Case Study

Mr Jerry Gui, Senior Staff Solutions Engineer, Dolby Laboratories

Wednesday, 8 March

Venue: Taming Sari 3

14:00 - 15:30

Parallel
Conference
Session 7
Towards the
IP Ready
Broadcast
Chain

WORKSHOP 5 – Rohde & Schwarz
4K/HDR End to End Workflow made possible by DolbyVision

Today's cinema and television is going through a technical evolution. The industry is working on major improvements such as higher special resolutions, higher frame rates wider color gamut and higher dynamic range. In this workshop we will explain how we shape the future content creation with DolbyVision (Dolby's HDR proposal) in order to give film makers and content creators ultimately the tool they needed to express their creative intent and to best tell their story. We will explain a 4K/HDR end to end workflow with its different challenges such as HDR format cross conversions (PQ vs HLG), SDR up-scaling to HDR and how to deliver reliably b2b and b2c in HDR thanks to the new emerging IMF standard. We demonstrate on our RS CLIPSTER 6 and the Dolby CMU how to unleash HDR.

Mr Simon Roehrs, Regional Manager APAC, Tokyo, Rohde & Schwarz

15:30 - 16:15

Tea Break & Networking

16:15 - 17:30

Parallel
Conference
Session 8
Cloud
Technologies,
Media and
Cyber Security

WORKSHOP 6
Creating Content for Long Term Success

Moderator: Mr Abdul Hakim Amir bin Nazri, Assistant Vice President, Content Development & Production Unit, Astro, MEASAT Broadcast Satellite Network Systems

CONTAGIOUS...

There are no accidents in creating great content. But if you ask 100 great content creators, no two will tell you the same way to create something viral.

It's a tough question, but when you look around, there's some people who are able to craft contagious content every single time.

Make a date with Mr Hosang Kim, Director of the KBS' Television Production 9.

He is responsible for overseeing the production of the KBS' flagship entertainment and music programs such as Happy Sunday and Yu Huiyeol's Sketchbook.

He joined the KBS in December 1994 as a TV producer and director and has more than 22 years' experience in the production of entertainment programming.

Mr Hosang Kim, Director, KBS Television Production 9, Korean Broadcasting System

Thursday, 9 March

Venue: Taming Sari 3

09:00 - 10:30

Parallel
Conference
Session 9
The Changing
Media
Business:
Opportunities
for
Broadcasters

WORKSHOP 7
Workshop on Digitising & Archiving Legacy Content

Every broadcaster has a large number of old tapes, films, cassettes etc in their archives library. As they grow older, they become more precious and hold memorable moments from the past. In some cases, they are a historical legacy to be guarded for future generations. The workshop will provide share similar experiences and provide a guide on how to convert the tapes into digital format and store it in a way that they can be easily searched, retrieved and distributed.

Presenter: Mr Aale Raza, Director, Whiteways Systems Pte Ltd

Tuesday, 7 March – Conference Day 1

Venue: Taming Sari 1 & 2

<p>09:00 - 09:30 OPENING SESSION</p>	<p>Welcome Address Dr Javad Mottaghi, Secretary-General, Asia-Pacific Broadcasting Union</p> <p>Industry Keynote - Principal Sponsor – WorldDAB DAB+: Delivering Radio's Digital Future Ms Joan Warner, Chief Executive Officer, Commercial Radio Australia</p>
<p>09:30 - 10:30 Session 1</p>	<p>Advances in Technology: Improvements and New Developments Chairman: Mr Masakazu Iwaki, Head of Human Interface Research Division, STRL, Nippon Hoso Kyokai, Japan</p> <p>UHD and HDR in DVB Dr Peter Siebert, Executive Director, DVB</p> <p>Technical Update on Advances in DAB+, Specifications, Emergency Warnings and Future Developments Mr Lindsay Cornell, Principal Systems Architect, BBC</p> <p>Digital Radio Mondiale (DRM) - Achievements and Challenges for a Successful Roll-Out Ms Ruxandra Obreja, DRM Consortium Chairman, Digital Radio Mondiale</p> <p>Cutting Edge 8K Camera Technologies Mr Tomoki Matsubara, Researcher, NHK Science and Technology Research Laboratories, NHK-Japan</p>
<p>10:30 - 11:00</p>	<p>Tea Break & Networking</p>
<p>11:00 - 11:30</p>	<p>Ministerial Session Welcome Address Dr Javad Mottaghi, Secretary-General, Asia-Pacific Broadcasting Union</p> <p>Ministerial Address and Official Opening of Exhibition YB Datuk Seri Dr Salleh Said Keruak, Minister of Communications and Multimedia, Ministry of Communication and Multimedia, Malaysia</p>
<p>11:30 - 13:00 Session 2</p>	<p>Enhancements in Workflow and Media Management Chairman: Dr Ahmad Zaki Mohd Salleh, Group GM, Engineering, Television Networks, Media Prima</p> <p>Conquering the Complexity of VOD, from Rights to Material Management Mr Michel Beke, VP Product Strategy, MediaGeniX</p> <p>TBC Mr Simon Fell, Director of Technology & Innovation, EBU</p> <p>A Quick Change - Accelerate and Simplify your Media Workflow Mr Charles Seviar, CTO Scale Out Storage, Dell EMC</p> <p>Sony Media Asset Management and Archiving Solutions Mr James Thia, Principal Consultant, Professional Solutions Company (PSAP), Sony Electronics Asia-Pacific Pte Ltd.</p> <p>Improving Operational Efficiency by using Automated File Based Audio Processing Mr MC Patel, CEO, Emotion Systems</p>

Tuesday, 7 March – Conference Day 1

13:00 - 14:00 **Lunch & Networking**

14:00 - 15:30 **Session 3**
Production Technologies: from HD to UHD
Chairman: Mr Prashant Butani, Senior Sales Director, Sales & Marketing, MEASAT Satellite Systems Sdn Bhd

Parallel
Workshop 1
Dell EMC
Taming Sari 3

Wireless Transmission Systems for 8K UHDTV Program Production
Mr Jun Tsumochi, Research Engineer, NHK Science and Technology Research Laboratories, NHK-Japan

Parallel
Dolby
Workshop
Tun Sri
Lanang 1

Digital Lighting for Digital Broadcasting
Mr Ajeet Khare, Managing Director, Canara Lighting Industries Pvt Ltd

4K Post Production and Transmission
Mr Dawoon CHUNG, Engineer, Korean Broadcasting System, KBS-Korea

HD to UHD, Challenges & Opportunities
Mr Prashant Chothani, Chief Executive Officer, Travelxp & Media Worldwide Limited

15:30 - 16:15 **Tea Break & Networking**

16:15 - 17:30 **Session 4**
Advance Solutions and Future Challenges
TBC

Parallel
Workshop 2
DRM
Taming Sari 3

Video Streaming Quality - Requirements to Monitor your quality on OTT, HD and UHD Streams
Mr Nils Ahrens, Broadcast Sales Manager Asia-Pacific, Rohde & Schwarz (Australia) Pty Ltd

Parallel
Dolby
Workshop
Tun Sri
Lanang 1

Sign Language CG Presentation System Using Second Screen Device
Mr Tsubasa Uchida, Researcher, NHK Science and Technology Research Laboratories, NHK-Japan

Updates to WRC-19 Process and Challenges for broadcasters
Mr Akira Negishi, Senior Manager, Planning Division, Engineering Administration Department, NHK-Japan

The Radio in a Box in Philippine Schools: An Indispensable Tool During Disaster
Mrs Elizabeth S. Mendoza, Director, Courseline Training Center

Wednesday, 8 March – Conference Day 2

Venue: Taming Sari 1 & 2

09:00 - 10:30 **Session 5**
Innovating the Audio Experience
Chairman: Mr Steve Ahern, Managing Director, AMT Pty Ltd Australia

Parallel
Workshop 3
Solid State
Logic
Taming Sari 3

Content Innovations – Pop-up Digital Stations
Ms Kartini Binti Kamalul Ariffin, Director, iM4U Radio, Malaysia &
Mr Firdaus Shamsuddin, Radio Broadcast Engineer, iM4Ufm

Parallel
Dolby
Workshop
Tun Sri
Lanang 1

Innovations in Radio Streaming: Content and Platform
Mr Andi Permadi, Head of New Media, Radio Republik Indonesia

NRK Norway's cradle to grave digital radio strategy
Mr Jørn Jensen, Senior Advisor, NRK Norway

Innovative use of Digital & New Media Platforms
Ms Shanthi Bhagirathan, Group Director, MBC, Sri Lanka

Exploring the Journaline Text Service with DRM Digital Radio
Mr Alexander Zink, Senior Business Development Manager, Fraunhofer

10:30 - 11:00 **Tea Break & Networking**

11:15 - 13:00

Session 6

Parallel
Workshop 4
JAA System
Taming Sari 3

Parallel
Dolby
Workshop
Tun Sri
Lanang 1

Immersive Media: Future of TV Experience

Chairman: Dr Peter Siebert, Executive Director, DVB

The Next Generation Audio and Video Consumer Experiences

Mr Jayant Shah, Director, Apps and Solutions Engineering, Dolby Laboratories

MPEG-H Based 3D Audio (7.1.4 Multi Channel)

Mr Deokjoon WOO, Deputy Director, Korean Broadcasting System, KBS-Korea

Smooth Transition to Next Generation Broadcast Audio – Step by Step to Adaptive Interactive 3D Sound

Mr Toni Fiedler, Director APAC, Fraunhofer

Business & Delivery Model for Evolutional Technologies

Mr Dennis Breckenridge, CEO, Elevate Broadcast

The Operation and Challenge of SHV Play-out and Transmitting Facilities

Mr Naoya Kimoto, Engineer, Japan Broadcasting Corporation, NHK-Japan

Platform Based Integrated Solution of Graphics, Sports and News

Mr Joel Lamdani, Senior Director Business Development, AVID

13:00 - 14:00

Lunch & Networking

14:00-15:30

Session 7

Parallel
Workshop 5
Rohde &
Schwarz
Taming Sari 3

Towards the IP Ready Broadcast Chain

Chairman: Dr Fintan Mc Kiernan, CEO, IDEAL Systems Singapore

Multichannel, Multiregional and Multiscreen via Satellite

Mr Markus Fritz, Executive Vice President of Commercial Development & Strategic Partnerships, Eutelsat

Professional Audio over IP: The Way Forward

Mr Anthony Gofton, Vice President Asian Sales, Solid State Logic

IP-based Distribution and Contribution at Deutsche Welle

Mr Oliver Linow, Distribution, Deutsche Welle

Leveraging Open Internet Technology

Mr Eric Hamilton, Chief Operating Officer of Caton Technology Corp.

DAB+ Hybrid – New Look Digital Radio

Mr Nick Piggott, Project Director, RadioDNS

15:30-16:15

Tea Break & Networking

16:15-17:30

Session 8

Parallel
Workshop 6
ABU
Programming
Creating
Content for
Long Term
Success
Taming Sari 3

Cloud Technologies, Media and Cyber Security

Chairman: Dr Amal Punchihewa, Director ABU Technology, ABU

Best Practices for Moving Media Workflows to the Cloud

Mr Jew Kok Lim, Director of Sales, APAC, ASPERA – an IBM company

EBU recommendations and what Broadcasters need to know about Cyber Security

Mr Simon Fell, Director Technology & Innovation, EBU

Cyber Security within Broadcast Infrastructure

Mr Aale Raza, Director, Whiteways Systems Pte Ltd

TBC

TBC, Media Prima

TBC

TBC, MCMC

Venue: Taming Sari 1 & 2

09:00-10:30
Session 9

Parallel
Workshop 7
Workshop
on Digitising
& Archiving
Legacy
Content
Taming Sari 3

The Changing Media Business: Opportunities for Broadcasters
Chairman: Mr Jamel bin Seman, Director Broadcast Operation, Radio Television Malaysia

TBC
TBC, ATEME

Collaboration and Opex – Real Partnerships that Deliver Operational Efficiency for Media Companies
Mr Jon Flay, Managing Director, Megahertz Ltd

Monetising on Multiple Delivery Platforms
Mr Hitesh Upadhyay, Asia-Pacific Leader, The Weather Company

Identifying the Keys to Success in the Evolving Media Business
Mr Steve Ahern, Managing Director, AMT Pty Ltd Australia

The Changing Trends of the Broadcast and Media Industry
Mr Peter Bruce, Director APAC, IABM

10:30-11:15

Tea Break & Networking

11:15-13:00
Session 10

Industry Debate – Panel Discussion
Managing the multifaceted Transition: what's the strategy, where to prioritise?
(Analogue to Digital, SD to HD, HD to UHD and Traditional to Multiplatform?...)

Moderator: Asaad Sameer Bagharib, Director, Thinking Tub Media

Panellists:

Dato' Haji Abu Bakar Ab. Rahim, Director General, Radio Televisyen Malaysia
Dr Ahmad Zaki Mohd Salleh, Group General Manager of Engineering, Media Prima Berhad
Mr Charles Seviar, CTO Scale Out Storage, Dell EMC
Dr Fintan Mc Kiernan, CEO, IDEAL Systems Singapore
Mr Simon Fell, Director of Technology & Innovation, EBU

13:00-14:00

Lunch & Networking

14:00-15:30
Session 11

Evolving Platforms – OTT, IBB and the Interactive Audience
Chairman: Che Rohana Che Omar, Deputy Director, TV Programme (Multichannel), Radio Television Malaysia

New Hybrid Digital TV Services in Singapore and Malaysia
Mr Mika Kanerva, COO and Co-Founder, Sofia Digital

Best Practices In The Digital Age - OTT Simplified
Mr Roy Reichbach, President and CEO, NeuLion

Advertising Going Mobile
Mr Mariano L Monteverde, Director of Sales for Asia-Pacific, VSN APAC

Digitisation of Malaysian Content Through MyCC 4 D World
Dr Megat Al-Imran, Senior Lecturer at Universiti Putra Malaysia (UPM)

15:30-16:15

Tea Break & Networking

16:00-17:15
Session 12

Digital Transition – Experiences in Digitising and Digitalising Infrastructure
Chairman: Mr Les Sabel, Digital Manager, Commercial Radio Australia

Digitize, Restore and Archive
Mr Aale Raza, Director, Whiteways Systems Pte Ltd

New ITU-R Handbook – DTTB Networks and Systems Implementation
Mr Pham Nhu Hai, Counsellor, ITU

Safeguard of your Infrastructure Investment by Monitoring the Delivery Chain
Mr Simon Tsang, Asia-Pacific Sales Manager, Test-Tree c/o Enensys Technologies



The DBS Industry Debate

Managing the multifaceted Transition: what's the strategy, where to prioritise?

(Analogue to Digital, SD to HD, HD to UHD and Traditional to Multiplatform?...)

Broadcasting and the media industry has been going through a change process for some time now. For some it is a change from analogue to digital operations and infrastructure, for some others it is a transition from SD to HD, and for another group it may be a move to a further advanced system like UHD. For the early movers, the change process started as an analogue to digital transition process which to some extent also coincided with or was quickly followed by a transition from SD to HD. For those who made this move early on it also laid a good foundation for what was coming next. But those who were slow to make the change are now faced with a conundrum. It has become a multifaceted transition process which involves a transition from analogue to digital, SD to HD, incorporate multiplatform delivery and at the same time consider a move from HD to UHD in the very near future. On top of these there is a process of integrating IT solutions within the infrastructure too. For many broadcasters, this has become an extremely difficult and a very costly process to manage.

Some broadcasters have successfully planned and managed these transitions in a strategic manner. Studying and analysing the market needs and prioritising the areas that

need immediate change and effective phasing the process into manageable tasks based on the resources available. But this requires careful planning and good knowledge of what these technologies or solutions are and where they fit in. It also requires good enough resources and solution providers at your disposal. However, if any of these are limited then it can become an extremely difficult task. Unfortunately, the tricky part is that the longer you wait the tougher it gets as new technologies and solutions make existing ones obsolete and incompatible, and maintaining the legacy systems become extremely costly.

So, given this difficult situation for some, how can the broadcasters make a move towards digitalisation and what is the best strategy to follow? How can they effectively incorporate the advanced IT infrastructure and make the move towards multiplatform delivery? Should they move to HD or consider UHD solutions now? And how best to manage the limited resources available?

The Industry Panel of experts will debate and share their views and experiences on how to effectively address these multiple transitions going forward.



Dr Javad Mottaghi
Secretary-General of the ABU

Dr Javad Mottaghi assumed office as Secretary-General of the Asia-Pacific Broadcasting Union (ABU) in May 2010. Before joining the ABU, he was Director of the Asia-Pacific Institute for Broadcasting

Development (AIBD) for 12 years. He has 35 years of national and international experience in media/communication, international partnership, media development, ICTs, capacity building, networking, research, negotiations, fund raising, news and programming for radio and television, social and cultural television programmes and sports coverage.

Dr Mottaghi was awarded Elizabeth R Award for Exceptional Contribution to Public Service Broadcasting. He received a "Special Lifetime Achievement Award" in May 2010 in recognition of his contribution towards the Asia – Pacific Institute for Broadcasting Development (AIBD).

In his previous positions, Dr Mottaghi served Iran's national broadcaster Islamic Republic of Iran Broadcasting (IRIB) in various capacities in the field of sports, culture, production and news. He holds a Ph.D. from the University of Teesside in England. He also holds a Bachelor's degree in Mechanical Engineering from Tehran Sharif University of Technology.



Joan Warner
Chief Executive Officer, Commercial Radio Australia

As CEO of Commercial Radio Australia (CRA) Joan was responsible for the planning, roll-out and implementation of DAB+ digital radio in the five metropolitan

capitals covering over 60% of the Australian population, and continues the DAB+ implementation for commercial radio broadcasters across regional Australia. She oversees the whole of industry marketing campaign, Radio Codes of Practice, audience survey contracts and industry copyright agreements. She is responsible for the annual National Commercial Radio Conference, Siren Creative Awards and Australian Commercial Radio Awards.



Bernie O'Neill
Project Director, WorldDAB

Bernie O'Neill leads the WorldDAB Project team to deliver a wide range of industry events, briefings and market intelligence that provide insight, analysis and best practice on all aspects of the

rollout of DAB digital radio. Working with WorldDAB's 94 members across 25 countries, every year her team delivers over 20 tailored workshops, seminars and advice across all aspects of the switch from analogue to broadcast digital radio. This includes regulation, licensing, technology trials, network buildout, marketing and production of digital radio content. Bernie has a degree in business, a background in international industry forum management and has worked in the digital radio sector for WorldDAB since 2011.



Jørn Jensen
Senior Advisor, NRK Norway

Jørn Jensen has more than 20 years of experience in radio broadcasting. He has been working at Norway's public broadcaster NRK from 1986, after a 10 year career as a musician. After starting by

making radio programmes at NRK's Radio Music department he became increasingly involved in programme production and development, and the creation of new digital stations. In 1995 he created NRK's first DAB-only station, with 24 hour classical music. Since then, Jørn has been a Chief Advisor for different NRK departments and is currently Chief Advisor for the Director of Distribution, dealing with the strategy for NRK's digital future on all NRK platforms. Jørn Jensen was the President of WorldDMB from 2009 to 2013 and has been a member of WDMB Steering Board for many years.



Les Sabel
Founder, S-Comm Technologies

Les has over 30 years of experience in communications systems, including broadcast digital radio (DAB/DAB+/DMB and DRM), mobile communications, wireless broadband and satellite

communications. Les founded S-Comm Technologies Pty. Ltd. in 2008 to work with the radio industry on DAB+ digital radio. S-Comm has provided services to many Australian and international companies and currently provides on-going independent engineering consultancy to Commercial Radio Australia, WorldDMB, the ITU, the ABC and SBS, and various commercial radio networks and regulators in Australia and South East Asia.

Previously Les has held senior positions in companies including RadioScape Ltd. (UK), Verticalband (UK), Lucent Technologies and the Institute of Telecommunications Research at the University of South Australia. His expertise covers the development of state-of-the-art communications infrastructure and receiver equipment, business development, product and project management. He has worked with companies across the globe to deliver new products and services.



Lindsay Cornell
Principal Systems Architect, BBC Digital and WorldDAB Technical Committee Chairman

Lindsay has worked for the BBC for more than 20 years, in a variety of engineering, editorial and leadership roles spanning

radio, TV, and spectrum regulation. He has considerable experience of leading collaborative projects through his roles as Chairman of CEPT FM PT51, dealing with spectrum issues for programme making, and as Chairman of the WorldDAB and DRM Technical Committees, managing the stability and development of the respective standards.



Masakazu Iwaki
Head of Human Interface Research
Division, Science and Technology
Research Laboratories, Japan
Broadcasting Corporation, NHK-Japan
 Masakazu Iwaki was appointed to his present position in June 2015. He oversees

research and development of human interface technologies to improve media accessibility. Prior to his appointment, Mr Iwaki was senior manager of the public relations and planning division in the STRL for three years. He has been the Chairman of the ABU Technical Committee since 2014.



Nick Piggott
Project Director, RadioDNS
 Nick has spent the majority of his career working in the radio industry, initially in programming and then moving to digital radio and online innovation. Nick is one of the founders of RadioDNS Hybrid Radio,

the open technology project that lets broadcast radio and IP work together, combining the power of broadcasting to reach many people and the power of the internet to deliver enhanced or personalised content.



Markus Fritz
Executive Vice President of Commercial
Development & Strategic Partnerships,
Eutelsat

Markus is responsible for developing breakthrough customer and business relationships, and building and facilitating strategic mid and long-term Go-to-Market and Product Partnerships. The Go-to-Market Partnerships aim to increase the number of sales partners and resellers both regionally and globally, improve end-to-end connectivity, and potentially reduce cost of sales and customer service. These partnerships include collaborations with relevant customer and industry associations. The primary focus of Product Partnerships is to build Eutelsat's end-to-end connectivity solutions, working with market leaders across the delivery chain and business vertical ecosystem. Markus also leads Eutelsat's global marketing communications. With over 20 years international experience in various leading positions in the satellite, ICT and consumer electronics industries, he is a leading expert in the global digital broadcasting business and its dynamics.



Mika Kanerva, COO and Co-founder,
Sofia Digital

Mr Mika Kanerva is the COO and co-founder of Sofia Digital and has been working in the company for 17 years. Prior to Sofia Digital, Mika worked as a TV technology research scientist at University of Tampere. Mika has a Master of Science degree on HCI software development. Mika's skills include IPTV, DVB, mobile devices, digital TV, interactive TV, streaming media, VOD, telecommunications, mobile applications and broadcast technologies.



Peter Siebert
Executive Director, DVB Project Office
 Peter Siebert is the Executive Director of the DVB Project Office in Geneva, where he is responsible for all operational aspects of the DVB organization. Prior to this he has been with Philips Kommunikations AG (PKI

AG) in Nürnberg/Germany, SES in Luxembourg and Siemens Schweiz AG in Zürich/Switzerland. His professional career spans all aspects of audio-video technology such as video transmission over telecommunication networks (PDH/SDH), satellite and IPTV networks. He has been responsible for a number of ETSI standards in the area of satellite transmission as well as for DVB specifications. He holds several patents in the area of audio-visual data transmission. Dr Peter Siebert received his M.Sc. degree in 1984 and his Ph.D. Degree in 1989 in Physics from the University in Frankfurt, Germany. In addition he holds a degree in economics from the University in Hagen, Germany and an MBA from the Open University in Milton Keynes, UK.



Oliver Linow
Deutsche Welle Distribution
Department, Bonn

Oliver Linow joined Deutsche Welle in 1998. At Deutsche Welle monitoring station he planned monitoring scenarios for DVB and for DRM shortwave transmissions. As a result, he established DW's worldwide satellite monitoring system for which he developed tailor-made features such as feedback channels using Internet streaming technologies as well as a network management system. In 2006 he transferred to DW's Transmission Department in Bonn, where he is in charge of planning and developing monitoring solutions for all DW's distribution feeds. In 2009 he introduced StreamMon, an in-house development designed for monitoring DW's live Internet streaming (web radio and web tv). From 2012 on Oliver Linow manages the worldwide DW signal monitoring network and heads the quality assessment department.



Jayant Shah
Director, Apps and Solutions
Engineering, Dolby Laboratories

Jayant has been involved with the Satellite and Cable TV industry in India since its inception in the early 90s. Having spent several years in the CATV and SMATV industry, he moved into broadcasting in the late nineties, joining News Television (later Star India) as engineering manager. He subsequently moved to the National Geographic Channel, heading the engineering and operations function in New Delhi. He also spent 3 years as a founder member & CTO of a digital media company, Tangerine Digital Entertainment, which was setup as a media services outsourcing organization, with particular emphasis on digital media, archiving and metadata. He joined Dolby Laboratories in the capacity of Head of Systems Engineering for India in early 2010 and is currently Director – Solutions Engineering for the emerging markets at Dolby. He has extensive experience in the areas of broadcast audio including live sporting events and post-produced shows.



Simon Fell, Director of Technology & Innovation, European Broadcasting Union

Simon Fell has been Director of Technology & Innovation for the European Broadcasting Union since 2013. He has more than 35 years' experience in senior broadcasting technology roles, including at British broadcaster ITV. Before joining the EBU Mr Fell was Chairman of the Technical Council at the Digital Television Group, the industry association for digital television in the UK.



Aale Raza, Director, Whiteways Systems Pte Ltd

Aale joined Benchmark in 1999 and rose to become a Director and Vice President of Benchmark Broadcast Systems (S) Pte Ltd. In 2011, Aale founded Whiteways Systems Pte Ltd, Singapore. Whiteways is a leading supplier and systems integration company focused on providing solutions to broadcast houses, Television channels, professional video production / post production and Teleports.



Peter Bruce, Director APAC, IABM

Peter Bruce is the Director APAC of IABM, the International vendors' association for the broadcast, digital media and entertainment sector. Peter is a 30-year veteran of the broadcast and media industry. After gaining an Engineering Higher National Diploma in Broadcast and Communications at Ravensbourne College, London in 1987, he began his career at Digital Visions, Austria and has worked for leading companies such as Ampex, Sony, Philips Broadcast, Vitec Group and Grass Valley. As IABM Director of APAC. Peter has established the APAC regional office from Singapore; growing and addressing the needs of the IABM members.



**Prashant Butani
Senior Sales Director – Sales & Marketing, MEASAT Satellite Systems Sdn Bhd**

Prashant Butani is a Senior Sales Director in MEASAT's Sales & Marketing team. In his role, Prashant supports sales, post-sales, and marketing activities of MEASAT's satellite services for South Asia.

Prashant joined MEASAT in 2015 and has been supporting MEASAT-3, MEASAT-3a and MEASAT-3b sales with complete end-to-end customer relationships and in partnership with various teleports in South Asia. He has over 12 years in the satellite and telecommunications industry in pre-sales, project management, market research and business development.

Prashant holds a B.E. (Information Technology with Satellite Communications) from Mumbai University. He also has Masters of Science in Satellite Communications Engineering from University of Surrey, United Kingdom.



**Eric Hamilton
Chief Operating Officer of Caton Technology Corp.**

Eric Hamilton is the COO of Caton Technology Corp. a leader in advanced Open Internet data transmission solutions for broadcast and enterprise. With over 20 years of experience managing technology companies, Hamilton focuses on developing and leading teams of engineers, marketers and sales professionals to bring new technologies to the global market. Prior to joining Caton, Hamilton has held the position of CEO of Pacific Portals Limited, a leading regional technology consulting and management company, as well as heading the Professional Applications team for Apple Inc. in Asia-Pacific.



**Ruxandra Obreja
DRM Consortium Chairman, Digital Radio Mondiale**

Ruxandra Obreja was first elected Chairman of the Digital Radio Mondiale (DRM) Consortium in 2008 with the avowed aim of ensuring that the various stakeholders work towards the same goal: the global and mass scale take up of the DRM standard. She is representing and enjoying the support of both Babcock International and the BBC on the Steering Board of the Consortium, a not for profit international organisation with members on all continents.

In the last few years Ruxandra has been deeply involved in the promotion of digital radio all over the world after a career spent at the BBC World Service where she worked as a journalist, editor, commissioner of English programmes and as head of business development. She studied in Romania and UK, writing, presenting and producing for radio and TV. Ruxandra has spoken at key broadcasting conferences, has organised and run workshops and written articles promoting digital radio and DRM (is currently a blog contributor to Radio World). She has been awarded given an important Romanian award for her work in the media with particular emphasis on digital radio.



**Steve Ahern
Managing Director, AMT Pty Ltd Australia**

Steve Ahern is an internationally recognised broadcast trainer, radio specialist and international consultant. He is the author of the textbook Making Radio, and the publisher of the Radioinfo.com.au and AsiaRadioToday.com industry publications. Steve was previously Director of Radio at the Australian Film Television & Radio School and a senior executive at the Australian Broadcasting Corporation. His early career included work as a reporter, producer, announcer and program director. He was awarded an Order of Australia Medal in the 2009 Queen's Birthday honours list for his contribution to media and training in Australia.



Madiana Asseraf
Senior Media Development Manager, EBU

Madiana is the Senior Media Development Manager with the EBU. Her focus is on identifying needs, opportunities and solutions to develop new services and partnerships to help EBU Members (European public broadcasters) to connect with all audiences. Since the beginning of her work with the EBU, Madiana has launched, developed and managed several initiatives and networks in the fields of audience engagement and digital storytelling. Since 2016, Madiana's focus is on content development and innovation, moving from digital development to the evolving needs of the wider cross-platform and cross-genre media ecosystem.



Alexander Zink
Senior Business Development Manager, Fraunhofer

Since 2000, Dipl.-Ing. Alexander Zink, MBA, has worked at the Fraunhofer Institute for Integrated Circuits (Erlangen, Germany) as Senior Business Development Manager Digital Radio and vice group leader for the work group 'Broadcast Applications'. Initially he developed the mobile and location based information system UMIS (Universal Mobile Information System).

From 2001 on he focused on the professional broadcast systems "Fraunhofer DRM, DAB ContentServer". Since 2002 he has been Project Director for Journaline, an interactive text based information system for digital radio.

In addition he works in the fields of AudioServers, software defined radio, and transmission protocols. For Digital Radio Mondiale (DRM) he acts Vice President, member of the Steering Board, treasurer, and vice chairman Technical Committee, and an active member of the WorldDMB Technical Committee and various DAB and DRM work groups.



Vikram Joglekar
Consultant, Dolby

Vikram Joglekar started with Cinema Audio working as a Dolby Sound Consultant. He was involved in the transition from mono to surround sound in cinema in India that took place in the 90s. He continued to work for Dolby in Italy for 12 years. Since 2011 he has been back in India working with various broadcast houses facilitating surround content production.



Prashant Chothani
Chief Executive Officer, Travelxp & Media Worldwide Limited

Over 30 years of experience & expertise in all facets of media and broadcast business, Mr Prashant Chothani, CEO of Travelxp & Media Worldwide Limited owns and operates a network of television channels. He is always at the forefront, adapting evolving business models & technology advances and is extremely resourceful in the film, music, DTH & Cable TV industry.

Right from being a key figure in legalising Cable TV operations in India, way back in 1988, to pioneering the launch of India's First HD television channel in 2011, Mr Chothani is now a proud owner of Travelxp 4k, World's First 4K travel channel.



Dennis Breckenridge
Managing Director, Advanced Broadcast Solutions – Asia Pte Ltd

More than 25 years in the Industry, Breckenridge is known for creating customized solutions for customers. Broadcast system upgrades, OB trucks to ground up facilities, there is no project too complex. Dennis has designed and built solutions for broadcasters, universities, governments and corporate institutions. He understands each project should cater to customer's individual workflow, production style and requirements. This is key to Dennis's success, knowing how to tailor projects to individual customers. Dennis is not only technical but also creative, including producer for Myanmar SEA Games Opening and Closing Ceremony.



Ajeet Khare
Managing Director, Canara Lighting

Ajeet Khare, Managing Director, Canara Lighting, manages biggest stage and studio lighting manufacturing facility in South Asia. They manufacture digital lighting fixtures, rigging equipment and provide turnkey studio lighting solution to broadcasters worldwide. Canara Lighting participates in leading broadcast shows in Europe and Asia. Canara Lighting has introduced LED lighting fixtures for studio and theatre applications. They are exporting to Asian, European and African markets. He is a Mechanical Engineer and has widely travelled all over the globe. Understands global business management and new technologies. This helped Canara Lighting to grow from strength to strength.



Peter Poers
Managing Director, Jünger Audio GmbH

After graduation in "Technology of electronic circuits" at Humboldt-University Berlin in 1988 I started my work in East-German Record Company. From 1990 to 1994 I was working with Sony Broadcast & Communications for Professional Audio. Beginning with 1995 I joined Jünger Audio GmbH. Since about ten years I am managing the company. I am member of EBU PLOUD and also ATSC TG1 and I did some work on audio related topics (dynamic range control, loudness control, surround audio, 3D audio).



MC Patel
CEO, Emotion Systems

MC Patel is a recognised serial entrepreneur in the Broadcast and Post Production industry. He was a driving force behind Abekas in the 1980s and went on to establish Alpha Image, leading the way during the digital revolution in the early 90s. After selling the business to Dynatech, MC became the Head of European Sales closing multi-million dollar contracts with STAR, ORBIT and Wharf Cable. He then moved to Discreet as Director of Hardware Technology before leaving to set up Post Impressions, a company specialising in developing high performance platforms, in 1999. MC and team formed Emotion Systems in 2010.



Kartini Ariffin
Director of Radio for iM4U Radio Sdn Bhd

Kartini Ariffin is currently the Director of Radio for iM4U Radio Sdn. Bhd. Launched in September 2014, Kartini is responsible for setting up, conceptualising and strategising the success of Malaysia's only youth volunteerism radio station. From Social Media, On ground and On Air marketing campaigns, Kartini is also responsible for the station's daily operation and oversees programming for the station.

She joined television as a host and writer for an Award Wining Young Women Empowerment program (3R – Respek, Relaks and Respond). Her radio career started in 2004 with Red fm. She then goes on air and became the Music Director for Hot fm from 2006 to 2012. Her leadership capabilities have seen her spearheading prominent organisations such as Media Prima Radio Network, Celcom Berhad and Red Communications Sdn. Bhd.



Naoya Kimoto
Engineer, Japan Broadcasting Corporation, NHK-Japan

He joined NHK (Japan Broadcasting Corporation) on April 2006, and engaged in operating the program play-out system and overhauling the system. From 2011, he has worked at Broadcasting Center of NHK, Master Control and from December 2013 followed the trade of designing the new play-out system of 8K/4K ultra-high-definition television (UHDTV), called Super Hi-Vision (SHV).



Tomoki Matsubara
Researcher, NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation, NHK-Japan

Tomoki Matsubara joined NHK Science and Technology Research Laboratories, Tokyo, since 2001. He has been developed High-sensitivity image sensor for camera systems for TV productions. And he has been involved in the research and development of image sensors for 8k-UHDTV camera system since 2016.



Tsubasa Uchida
Researcher, NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation, NHK-Japan

Tsubasa Uchida joined NHK in 2011 and since 2014 has been with NHK Science & Technology Research Laboratories. His current research interests include sign language animation system for hearing-impaired people. He received his B.E. and M.E. in Media and Telecommunications Engineering from Ibaraki University, Japan, in 2008 and 2011 respectively.



Jun Tsumochi
Research Engineer, NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation, NHK-Japan

Jun Tsumochi received the B.E. and M.E. degrees from Toyohashi University of Technology, Aichi, Japan, in 2002 and 2004, respectively. In 2004, he joined the Japan Broadcasting Corporation (NHK) and worked at the Osaka Broadcasting Station. Since 2008, he has been with the Science & Technology Research Laboratories of NHK, where he has been engaged in research and development on millimeter-wave imaging system and millimeter-wave link for UHDTV.



Colin Prior
Asia-Pacific Sales Manager, Enensys Technologies

Colin joined Enensys in 2012 and is responsible for sales and business development of Enensys products throughout the Asia-Pacific region. He is based in Thailand and is assisting many broadcasters and operators with their deployment of DVB-T2 / SFN transmission networks. Before joining Enensys, Colin was Director of International Sales at Strategy & Technology Limited.



Jamel Bin Seman
Director, TV Production Technology Division, Department Of Broadcasting Malaysia, Radio Television Malaysia

Jamel has been working with RTM since 1985, and at present, he holds the post of the Director, TV Production Technology Division, Department Of Broadcasting Malaysia. He started as Engineer-in-charge of Sri Aman Broadcasting Station in Sarawak. He is also involved with infrastructure development of RTM, and was the Project Engineer in Kuching. Before being transferred to Kuala Lumpur as the Director, TV Production Technology Division, he was the Deputy Director RTM Sarawak. Involved with the management of both radio and TV production and operations for the whole state of Sarawak. He graduated from University of Birmingham, UK (1981 – 1984) in BSc Electrical and Electronics Engineering.



Che Rohana Che Omar
TV Programme Deputy Director (Multichannel), Radio Television Malaysia.

She started her career in the organization since 1983, after graduating from the University of Malaya, in the field of Social Sciences. In 2006, she completed her Masters in Human Resource Development from the Universiti Putra Malaysia.

During her 33 years' service in RTM, she has had vast experience and has been working in various divisions and units such as the News and Current Affairs Division, TV Production, Human Resource as well as the Public Relations Division. As the TV Programme Deputy Director (Multichannel), she is responsible for the three television channels in RTM – TV1, TV2, TVi. This involves the overall management of the stations including content selection, scheduling strategy and human resources development.



Salmah Ibrahim Melina
Director of RTM Sarawak, Radio Television Malaysia

She has been there since 2013. Prior to Sarawak (from 2006 to 2012), she was attached to the Creative Content Unit, RTM Kuala Lumpur, in-charge of television programmes procurement for TV1, TV2 and TVi.

In 1983, she joined RTM as a Programme Producer in the Public Affairs Unit producing children's programmes as well as a women's magazine for broadcast on TV1. Later she worked as a Conty Producer for TV1 and TV2. She had a short stint as a news TV producer/editor and she also produced tv documentaries. In 1999, she decided to do a master degree in Communication Studies in Universiti Kebangsaan Malaysia (UKM). While researching for her thesis, focusing on radio broadcasts in the ethnic languages of Sarawak, she gained insight into the needs to humanise broadcasting to win the hearts and mind of the target audience.



Charles Seviour
CTO Data Lake Scale Out Solutions, Dell EMC (APJ Region)

Charles Seviour has 25 years in the Media sector and also provides focus on solutions for Analytics, Enterprise and other sectors across APAC.

Prior to joining Dell EMC he was Technology Director for leading broadcaster and publisher Nine Entertainment Co. Australia. There he managed the transition to a digital file-based workflow and business and technology transformation.

Charles is working with customers to help define their next generation foundation built on Data Lake Scale-Out Solutions and data analytics. He has a BE (Hons) from University of Melbourne and a Master of Business and Technology from UNSW.



Anthony Gofton
Vice President of Asian Sales, Solid State Logic

Anthony Gofton is the Solid State Logic Vice President of Asian Sales, and has been with SSL since 1989 in a variety of technical and commercial roles. He is actively involved in professional audio and broadcast projects across Asia, working with many different customers, manufacturers and system integrators with the aim of creating future-proof systems and expanding the SSL network across the region.



Jerry Gui
Senior Staff Solutions Engineer, Dolby Laboratories

As the Regional Senior Staff Engineer at Dolby Singapore, Jerry works closely with the free-to-air broadcasters and Pay TV Operators in South East Asia to enable Dolby technologies with proper deployment and implementation. Jerry held the position of Principal Engineer at Mediacorp Singapore prior to joining Dolby Singapore in Year 2011.



Nils Ahrens
Area Sales Manager, Rohde & Schwarz

Nils has been working for Rohde & Schwarz for more than 12 years, holding project management positions in the Middle East for their Radio Communication Business Unit as well as Head of Sales & Marketing for the Broadcast Business Unit in Asia-Pacific. Since 2012 he has worked out of Australia looking after Australia, NZ, ASEAN and Pacific Islands.



Famin John
Technical Account Director APAC, ATEME

Famin John is ATEME's Technical Account Director APAC. Famin has been associated with the Broadcast and Cable TV industry for more than a decade. His background includes extensive experience with Broadcasting, DTH, DTT, Cable TV & CA-DRM businesses and technologies. He holds a Bachelor of Engineering degree in Electronics and Communication and a MBA in International Business from the Indian Institute of Foreign Trade.



Jew Kok Lim
Director of Sales, APAC, Aspera

Jew Kok Lim is currently responsible for the Aspera business in the Asia-Pacific region. He held various positions in high technology companies, including Autodesk, Avid and Quantum, over the last 20 years. He has worked primarily on providing solutions in the media sector. In the past three years he has been closely involved in helping companies solve Big Data storage, management, transport and collaboration problems.



Firdaus Shamsuddin
Radio Broadcast Engineer, iM4Ufm
Firdaus Shamsuddin is a Broadcast Engineer, specialist in FM Radio Broadcast at iM4Ufm studio, where he take care all the technical aspect that related to the radio station. He graduated from Leeds Metropolitan University with bachelors degree with honours in Electrical & Electronics Engineering in 2004. After graduation he worked as Broadcast Engineer in Media Prima Radio Network for 8 years. His experiences consist of studio maintenance, studio build up, studio design, FM radio transmitter system, Radio Outdoor Broadcast, Basic IT and networking skill, Radio Computing Software (RCS) system and many more. In his years of experience, he was part of a team that design & build Flyfm studio, Onefm studio, Hotfm Terengganu regional studio and Hotfm Kelantan regional studio. His latest 'work of art' in studio design & build, was he lead a team, design & build iM4Ufm studio located in iM4U Sentral in Puchong.



Simon Roehrs
Regional Manager APAC, Tokyo, Rohde & Schwarz
In 2001, Simon Roehrs started his career as a software developer at DVS GmbH. He became lead programmer for the major flagship products R&S CLIPSTER and R&S VENICE, addressing the post production and broadcast studio industry. After 10 years of development he moved in 2011 to Singapore to work as a solutions architect and service engineer and covered the whole APAC region being responsible for key accounts as well. During this time he gained knowledge in different markets, digital media-, post production- and broadcast studio workflows. He learned how to plan and create a tailored customer solution and perform installations as well. Due to the acquisition of DVS by Rohde & Schwarz he took in 2013 the responsibility as a Regional Manager for APAC based in Tokyo. As a conference speaker and SMPTE fella he speaks in the major Asian conferences such as SMPTE Hong Kong, BIRTV, BES India, InterBEE, Broadcast Asia, ABE Sydney, etc., to inform and clarify about the latest emerging technologies such as IMF, UHD and High Dynamic Range.



Shanthi Bhagirathan
Group Director, MBC Networks PVT LTD - Sri Lanka
Shanthi broadcasting career started back in 1999, appointed at MTV as Director TV Channel - Programming & Marketing responsible for the overall channel development and content. Shanthi played a vital role in transition and growth of TV channels and growth of Television operation at MTV which moved into prime time content production. Later on held responsibility as CEO NEWS operation. As an able broadcaster with Television, she moved on to Radio where she, as the CEO, guided MBC Network admirably, seeing it through difficult, competitive times and seeing MBC is on a pedestal with 5 Radio brands and reputation as Sri Lanka's leading Radio Network. Recognition for creating innovative radio programs while continuously maintaining leadership.

She was invited to join the main Board as Group Director in 2008 at Capital Maharaja Organisation, the parent company of the Media Companies to head the Radio operation.



Marini Ramlan
GM Innovation & Distribution. Primeworks Studios & Primeworks Distribution.
Marini Ramlan started her career in broadcasting in 1999 with TV3, Malaysia as an assistant sports producer. Today she leads the Innovation & Distribution department at Primeworks Studios. Her role covers various areas including Content Sales, Film Marketing & Distribution, Digital Content Development, Animation, Co-productions and partnerships. Marini is a graduate of The Birmingham Institute of Art and Design, in Visual Communications (Time-Based Media).



Eric Li Bin
Regional Manager, Regional Headquarters Singapore Pte Ltd, Rohde & Schwarz
Eric Li Bin is responsible for the business development of Rohde & Schwarz in the ASEAN market, including Transmitter, Headend, Test and Measurement, and Studio solutions. He has over 12 years' experience in the broadcast industry, and expertise in a wide range of areas. He is actively involved in the DVB-T2 roll out in the ASEAN region.



Heiko Ross
Director of Sales and Marketing, LS telcom
Heiko graduated from Northeastern University in Boston/Massachusetts with a degree in Business Administration. Before he started working with LS telcom in 1997, Heiko did multiple internships in various market segments including banking, automotive and manufacturing. At LS telcom, he started off as a product manager for frequency planning and coordination software. Later, Heiko joined the sales team to become regional sales manager. Today, Heiko is leading global marketing, business development and sales operations at LS telcom. During his career at LS telcom, Heiko has been exposed to multicultural experiences dealing with business partners and customers all over the world. He has participated in numerous international conferences and given speeches about radio communications and spectrum management. Heiko is enthusiastic about sports and loves music. As such Heiko has been heading a non-profit organization for more than a decade to promote and organize regional live music festivals.



Milos Pavlovic, MSc, Dipl.-Ing
Sales Director Broadcast LS telcom AG, Germany

Milos Pavlovic has a diploma in Electrical Engineering/Telecommunications. He received his Dipl. Ing and MSc degrees from University of Belgrade, Faculty

for Electrical Engineering. Milos has been in the Sales & Marketing department of LS telcom AG since 2012, with more than 10 years of experience working in the broadcast industry. After joining LS telcom, he has taken over the responsibility for its broadcast customers globally.



Hosang Kim
Director, KBS Television Production 9

Hosang Kim was appointed Director of the KBS' Television Production 9 in May 2016. As Director of TV Production 9, he is responsible for overseeing the production of the KBS' flagship entertainment and

music programs such as Happy Sunday and Yu Huiyeol's Sketchbook.

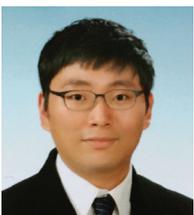
He joined the KBS in December 1994 as a TV producer and director and has more than 22 years' experience in the production of entertainment programming. He graduated with a Bachelor's Communication & Arts from Yonsei University and completed his Master's degree in Media & Communications at Hanyang University.



Deukjoon Woo
Deputy Director, Korean Broadcasting System, KBS-Korea

Deukjoon Woo received his bachelor's degree in Electronic Engineering from Dankook University in 1995. He joined the Korean Broadcasting System(KBS)

in 1995 and is now the deputy director of TV Production Technology Department. Since 2000, he has participated in the production of various TV genres, especially the "Concert 7080" music program with 5.1 channel sound format. In 2016, as the team leader of the immersive sound T/F team, he led the demonstration of the 7.1.4 channel "Descendants of the Sun" program and set a turning point in the next generation of UHD broadcasting sound.



Dawoon Chung
Engineer, Korean Broadcasting System, KBS-Korea

Dawoon Chung received his bachelor's degree in Computer Science from HanYang University in 2010. He had been the NPS(Network file based Production

System) mastering director in TV Production Technology at Korean Broadcasting System(KBS) since 2012. He participated in research of HD and UHD file based production workflow. Especially he operated NLE(FCP7, Adobe Premiere), color correction (DaVinci Resolve) and VFX(Adobe After Effect). He is now working on management of Broadcasting distribution network and UHD control room at TV transmission department of KBS.



Keiko Hagihara Bang
CEO & Founder, Bang Singapore Pte. Ltd.

Keiko Bang has spent more than 20 years creating and producing high-end award-winning factual productions from Asia for the international marketplace. She is

responsible for producing more than 100 hours of blue-chip programming, which have aired in more than 150 countries around the world. More than 40 percent of these acclaimed films were co-productions with over 25 countries, many of them working with an Asian producer or broadcaster for the first time. In 2006, Bang was the first Asian production company to rank amongst Realscreen's Top 100 Most Influential Documentary Companies in the World.

Today Keiko is passionate about the world of digital storytelling and new media. From mobile phone applications to the world of serious gaming and mixed media (AR/VR), she believes that the current paradigm shift in content requires an intersection between technology and art that not only enables a new brand of storytelling but also new business models for monetization. She believes harnessing this power will be the key to the future success of content in Asia.



Roy Reichbach
President and CEO, NeuLion

Roy's current position as President and Chief Executive Officer of NeuLion targets the revolution currently underway as the television and internet video industries converge. He is responsible for NeuLion's

vision and sets the overall direction for the company. Over the last ten years, with the growth of internet television on computers, tablets, mobile, and internet connected devices alongside NeuLion's technology; Roy has worked closely with the largest brands in the sports and entertainment industry including the NFL, NBA, UFC, Univision, World Surf League, Eleven Sports Network, and many others.

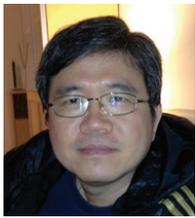


Ayako Takada
Program Director, Japan Broadcasting Corporation, NHK-Japan

Ayako Takada is a program director at Japan Broadcasting Corporation, NHK, Japan's sole TV broadcaster. She has produced many segments of NHK's

flagship programs "Today's Close-up", "News Watch 9" and other documentaries, mainly covering international affairs and tech trends. Her works as a TV director include a documentary on the Burmese Media Reform, a documentary on telepresence robots in the US and in Japan and an award-winning documentary on the kidnap issues in China under one child policy.

Having been developing her career in the TV industry since 2006, she has strong concerns that the TV medium is gradually losing the young viewers' interest and engagement. Thus, she immediately joined the "FB video documentary team" of "Today's Close-up" at its very beginning in the summer of 2016 and since then she has been working on pushing the limits of traditional journalism.



Simon Tsang
Asia-Pacific Sales Manager, Test-Tree c/o Enensys Technologies

Simon joined Test-Tree, which specialise in providing Digital Radio/TV Test and Monitoring Solution, in 2016. He is based in Hong Kong and is responsible for the sales and business development of Test-Tree's products in Asia-Pacific region. He has been working in digital TV industry for more than 16 years. Simon graduated from Hong Kong Polytechnic in Electrical Engineering and obtained Master of Business Administration from the University of Hong Kong. He is a member of the Institute of Engineering and Technology, UK.



Akira Negishi
Senior Manager, Planning Division, Engineering Administration Department, Japan Broadcasting Corporation, NHK-Japan

Akira Negishi is a Senior Manager in the Engineering Administration Department at NHK (Japan Broadcasting Corporation), with the responsibility for standardization activities related to broadcasting spectrum in ITU-R. He joined NHK in 1995 and has been engaged in the field of HDTV transmission, both domestically and internationally. In 2011, he joined JIB (Japan International Broadcasting) and was in charge for expanding the distribution market of NHK's international television channel called NHK World TV. After rejoining NHK in 2015, he has been in his current position.



Michel Beke
SVP Product Strategy, MediaGeniX
Michel is co-founder of MediaGeniX. Designing robust media solutions that enable broadcasters to optimally run and develop their media business is Michel's passion. Active in the broadcasting

business since 1993, Michel evolved from development through analysis to business consulting as the business evolved from single channel linear TV to multi-channel linear and on-demand services. Before working in the broadcast industry, he worked on image compression for use in document management systems. Michel holds a Master's Degree in Computer Science.



Rinaldo Mazzone
Head of Research and Development, Syes s.r.l

Rinaldo worked since year 2000 in the telecommunication industry. Formerly as hardware designer for Alcatel Lucent, Pirelli and PGT Photonics. He joined Syes in 2009 as head of R&D Digital laboratory. His scope and skills cover Product Management, design of Telecommunication Systems, management of Hardware/Firmware design group. He is usually involved in high frequency board layout, systems with FPGA and optoelectronic devices design (mixed analog and digital) and, of course, broadcast standards (DVB-T/T2/S2, ISDB-T).



Andi Permadi
Head of New Media, Radio Republik Indonesia

Andi Permadi has been an online journalist for five years and Head of New Media at RRI since 2012. His areas of responsibility include the Web, apps, streaming, the cloud and social media technology.



Mariano L. Monteverde
Director of Sales for Asia-Pacific, VSN

Mariano L. Monteverde is Director of Sales for Asia-Pacific for VSN, a global company specialized in enterprise management and automation software for M&E businesses. Montverde joined VSN Headquarters in 2010, expanding operations into Eastern Europe, Russia, and South Africa. He moved back to Hong Kong to join VSN APAC in 2015, where he is driving the Marketing and Sales operations for the region.



Joel Lamdani
Senior Director for Strategic Markets Developments, Avid Technology

Joel Lamdani serves as Avid Technology, Senior Director for Strategic Markets Developments concentrating on the commercialisation and the adoption of innovative Avid Everywhere platform to the media and digital media world as well as spearheading Avid's AR/VR initiative utilising Avid's extensive technology & production knowhow in Audio, Video & Graphics.

A strategic, multidisciplinary executive with vast experience in growth-oriented technology media production innovation (invented the famous swimming record line in TV production in 1999 which by now is a must in any swimming and/or athletics production), with expertise in operational execution and results-driven performance in a variety of complex technical fields including content management, e-commerce, workflow management and numerous other industries.



Toni Fiedler
Director APAC, Fraunhofer

Toni Fiedler is the founder and General Manager of Pleasant Audio Ltd. and represents Fraunhofer IIS' Audio & Multimedia division in Greater China and APAC. His career includes several senior business development roles in Fraunhofer IIS, Dolby and Coding Technologies. Prior to this in the mid 90s he co-founded one of the first DVD pre-mastering facilities in Europe after seven years as a Tonmeister and Product Manager with Sony Music Entertainment. He studied sound design and music production at the University of Detmold, Germany and holds an MBA from the University of Lueneburg, Germany.



Jon Flay
Managing Director, Megahertz

Jon Flay is Managing Director of Megahertz. He has worked in the broadcast industry in various roles from PM to MD since 2002, before which he worked for Dell Computers and BP Marine, amongst others. Since acquiring the MHz business in 2013, the company has seen its turnover more than triple, new offices opened in London and Singapore, and international business is now flourishing.



Dr Fintan Mc Kiernan
CEO, Ideal Systems SEA

Fintan joined Ideal Systems Group in 2011 to establish Ideal Systems in South East Asia. Now with offices in Kuala Lumpur, Singapore and Jakarta, Ideal have built broadcast studios, facilities and systems for leading broadcast operators including Sony Pictures, Fox Sports, Astro, Globecast, Encompass Digital Media, CNN Indonesia and SingTel. Fintan is a member of the ABU's Engineering Excellence Awards panel of judges and is a member of the Board of Advisors for Asia Image Magazine. Prior to joining Ideal, Fintan established OmniBus Systems in APAC (Now Belden GV) and has worked in broadcast technology roles in the US and Europe. Fintan is a regular contributor and speaker at broadcast industry events in Asia including SMPTE, ABU and Broadcast Asia.



Dr Elizabeth S. Mendoza
Director, Courseline Training Center for Teachers

Dr Elizabeth Mendoza is an educator, author and broadcaster. Her forthcoming book is "Media and Information Literacy Within ASEAN Curricula". She has weekly radio programmes that deal with education and disaster preparedness. She also established schools and training centres that aim for quality education in a Philippine setting but geared towards globalisation. Dr Mendoza has won international awards and citations for her research in Speed Reading and Transitional Childhood. She graduated from Philippine Normal College (now Phil Normal University) with a degree of Bachelor of Science in Elementary Education with specialisation in English Magna Cum Laude.



Dr Ahmad Zaki Mohd Salleh
Group General Manager of Engineering, Media Prima Berhad

Ahmad Zaki is in charge of all engineering operations, production and planning in Media Prima Berhad, including all aspects of engineering with regards to DTV implementation. Dr Zaki has been actively involved with the national committees for the development of Digital TV standards in Malaysia. He has served on various committees under the Malaysian Communications and Multimedia Commission.



Asaad Sameer Bagharib
Director, Thinking Tub Media

Asaad Sameer Bagharib is a veteran of the media industry having spent more than 30 years in MediaCorp, Singapore, one of Asia's leading media broadcast organisations. His last appointment was Senior Vice President of Technology Business. In that role, he was responsible for the provision of media technology solutions and project consultancy & management in Singapore and the region. After leaving MediaCorp in Sept 2013, Asaad set up his own company, S&S Solutions Pte Ltd, to provide media technology consultancy and services. He is also a Director of Thinking Tub Media Pte Ltd which provides end-to-end OTT platform services to the region.



Pham Nhu Hai
Counsellor, Radiocommunication Study Group 6, International Telecommunication Union (ITU)

Mr Pham Nhu Hai is the Counsellor for Radiocommunication Study Group 6 on Broadcasting Services, in the International Telecommunication Union (ITU). Mr Hai is also playing a leading role in the ITU joint effort with broadcasting organisations and industry, to assist countries around the world in their transition to digital television and harmonisation of the use of the digital dividend spectrum.

Previously, Mr Hai headed the Broadcasting Services Division responsible for the application of international regulations and planning of broadcasting services around the world. Before joining the ITU in 1995, Mr. Hai worked for over 18 years in Australia, in both the private and public sectors, in the fields of spectrum management, radiocommunication regulatory and policy development.



Mr Muzaffar Fakhruddin
General Manager, Sony EMCS (Malaysia) Sdn. Bhd.

Muzaffar has spent his 20 year career in the Digital Broadcasting industry shuttling between Japan and the UK. His initial 6 years were mainly in pure R&D, from developing New Power Supply Technologies to Image Processing algorithms. In his more than 10 years working experience in digital broadcast, he has had hands on experience in the introduction of a wide range of technologies, from their inception to their roll outs.

Currently he is the head of Software at Sony's R&D Centre and is responsible for Digital Broadcasting & IPTV covering Asia-Pacific, Middle East and Africa.



Dr Leon Mun Wai Yuen
Head of IPTV Department, Sony EMCS (Malaysia) Sdn. Bhd.

Dr. Leon has worked in different parts of the Broadcast Industry and 4G Telco industry. From being a Design Engineer for Professional Broadcast Set-Top-Box, Encoders and Multiplexer, to 4G device testing, and to leading the HbbTV and OTT certifications in Sony, he has a unique perspective to share on certifications in general from a manufactures perspective



Steve Cleary
Digital Broadcast Specialist, Sony EMCS (Malaysia) Sdn. Bhd.

Steve Cleary started working in DVB Digital Broadcast in 1995 and since then has gained a valuable experience working around the globe in this industry.

Steve has been a consultant for many international Digital Broadcast specifications such as South Africa, Ghana, ECOWAS, Singapore, Malaysia, United Arab Emirates. Similarly Steve has been a Consultant and Chief Liaison for many international Digital Broadcast Test specifications and procedures such Malaysia, Singapore, Ghana, ECOWAS & Indonesia.

Steve is also a familiar face in ABU events, being an expert presenter at Asia-Pacific Broadcasting Union Conferences, ECOWAS Ministerial Meeting Conferences, and Arab States Broadcasting Union Conferences.



Gerard Grabuleda Prat
Technical Manager, Sony EMCS (Malaysia) Sdn. Bhd.

Gerard has 7 years experience in this industry, with PSI/SI and HbbTV being his main technical expertise.

Gerard started designing Digital Terrestrial head-ends and contributed to the design of the first HbbTV services in Spain. He then moved to Sony in Europe, where he has designed Digital TV Middleware and contributed to various European national and operator specs.

Gerard recently moved to Sony's Asia's R&D Center in Malaysia, where he is actively contributing in HbbTV related specs in the Asia-Pacific region and is now leading the design of HbbTV in Sony TVs worldwide.



Abdul Hakim Amir bin Nazri
Assistant Vice President, Content Development & Production Unit, Astro, MEASAT Broadcast Satellite Network Systems

Abdul Hakim Amir bin Nazri is in charge of ideation, concept and content development for various in-house channels of Astro. He has developed highly-rated content such as Islamic realities 'Imam Muda', 'Pencetus Ummah' and 'Tahfiz Muda', and entertainment show 'Kilauan Emas', among others. His current focus is to continue unearthing new, innovative content that engages as well as developing new IPs for the company.

Announcing the next ABU Digital Broadcasting Symposium

**ABU
DIGITAL
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SYMPOSIUM 2018**

**Kuala Lumpur
5 - 8 March 2018**



Congratulations to SONY on winning the DBS 2016 Booth of the Year Award.

The award was introduced last year and will be presented again this year. The winner will receive a complimentary single booth at DBS 2018.

Participants in the symposium choose the best booth. All participants are able to vote, based on criteria such as the design, presentation and value provided.

The winner will be announced on the final day of the symposium at the end of the conference.

Daily Lucky Draw

Another highlight of the symposium is the daily lucky draw, with a wide selection of prizes, many contributed by sponsors and exhibitors.

All participants can enter by collecting stickers from exhibitors and completing the Daily Lucky Draw card. Each exhibitor is provided with a set of stickers for this purpose.

Participants use the same lucky draw cards to vote for the best booth.

Enjoy your time at the symposium. Vote for your favourite booth and enter the daily lucky draw.



WorldDAB

WorldDAB is the global industry forum responsible for defining and promoting DAB, the digital radio broadcasting standard for many broadcasters around the world.

With unique cross industry representation, our 90-plus members cover 27 countries and include experts from broadcasters, regulators, network providers through to manufacturers of receivers, chips, professional equipment and automobiles.

Sharing case studies and best practice, our not-for-profit remit allows us to give unbiased advice. We support and host industry events, briefings and tailored workshops providing insights, analysis and market intelligence.

Together we define and promote DAB by offering support on all aspects of the switch from analogue to digital radio. This includes regulation, licensing, technology trials, network build out, marketing and production of digital radio content.

Contact:
projectoffice@worldadab.org +44 (0) 207 010 0740



DVB

Digital Video Broadcasting (DVB) is an industry-led consortium of over 200 broadcasters, manufacturers, network operators, software developers, regulators and others from around the world committed to designing open interoperable technical standards for the global delivery of digital media and broadcast services.

DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data.

DVB dominates the digital broadcasting environment with thousands of broadcast services around the world using DVB's standards. There are hundreds of manufacturers offering DVB compliant equipment. To date there are over a billion DVB receivers shipped worldwide.

Further information about DVB can be found at:
www.dvb.org, www.dvbservices.com
and www.dvbworld.org



Dell EMC

Dell EMC brings innovation to people everywhere and organizations of all types and sizes so they can transform and thrive in the digital economy. Becoming a digital business means transforming operating models, people, and process as well as IT. We uniquely power this digital transformation by delivering best-in-class technology for applications, data, infrastructure and security – from the edge to the core to the cloud. Collectively under the banner of Dell Technologies, Dell, Dell EMC, Pivotal, RSA, SecureWorks, SecureWorks, Virtustream, and VMware align to deliver a singular goal: helping our customers transform for the future.

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Dolby

Dolby Laboratories creates audio, video, and voice technologies that transform entertainment and communications in mobile devices, at the cinema, at home, and at work. For more than 50 years, sight and sound experiences have become more vibrant, clear, and powerful in Dolby.

Dolby Audio™ is a set of robust technologies that deliver rich, clear, powerful sound in the cinema, at home, and on the go. It makes entertainment more compelling by providing a vibrant audio experience for content that is broadcast, downloaded, streamed, played in cinemas, or enjoyed via disc.

Dolby Vision transforms your TV experience with dramatic imaging—incredible brightness, contrast, and color that bring entertainment to life before your eyes via OTT online streaming, Ultra HD Blu-ray, broadcast, and gaming applications.

Dolby Atmos delivers moving audio—sound that can be precisely placed and moved anywhere in three-dimensional space, including overhead. It brings entertainment alive all around the audience in a powerfully immersive and emotive experience.

Contact Details
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Digital Radio Mondiale (DRM)

DRM Digital Radio for All

Digital Radio Mondiale (DRM) the global, open, green, flexible, cost effective digital radio broadcasting standard covering all frequency bands, has two major configurations

- DRM for large area coverage or 'DRM30' for LW, MW, SW (below 30 MHz); providing regional, national and international coverage and low power consumption.
- DRM for local coverage or 'DRM+' for the VHF bands I/II/III including FM (above 30 MHz); for local and regional coverage with broadcaster-controlled transmissions.

Both DRM configurations share the same audio coding, data and multimedia services, service linking and signalling schemes. DRM provides high quality sound and enhanced features: Surround Sound, Journaline text information, Slideshow, EPG, and emergency warning functionality. Contact: projectoffice@drm.org



Rohde & Schwarz

Rohde & Schwarz has been active in the field of TV and sound broadcasting for almost 70 years. We supply solutions along the entire broadcasting value chain, starting with post production in the studio and ending with transmission of the broadcasting signal. We also have the T&M and monitoring equipment required for broadcasting operations. Special T&M equipment from R&S® is used to develop and manufacture consumer audio and video products efficiently and in line with specifications while ensuring high quality. Rohde & Schwarz offers a complete product line to support the broadcast industry in rolling out the high-definition 4K and HDR standards. Its encoding and multiplexing solutions are used in test operations and initial UHD TV services. The company is also involved in defining future standards, effectively supporting media development.

ROHDE & SCHWARZ MALAYSIA Sdn Bhd.
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FB: www.facebook.com/rsmyofficial

Solid State Logic

SOLID STATE LOGIC

SSL Company Profile: From groundbreaking audio consoles to innovative video production systems, Solid State Logic has evolved to become the world's leading manufacturer of analogue and digital audio consoles and provider of creative tools for film, audio, video and broadcast professionals.

SSL contact details:

worldwide: sales@solidstatelogic.com,

SEA: malcolm@ssl-sg.com

Website: <http://www.solidstatelogic.com>

facebook page:

<https://www.facebook.com/SolidStateLogic.SSL>

www.facebook.com/SSLAsia

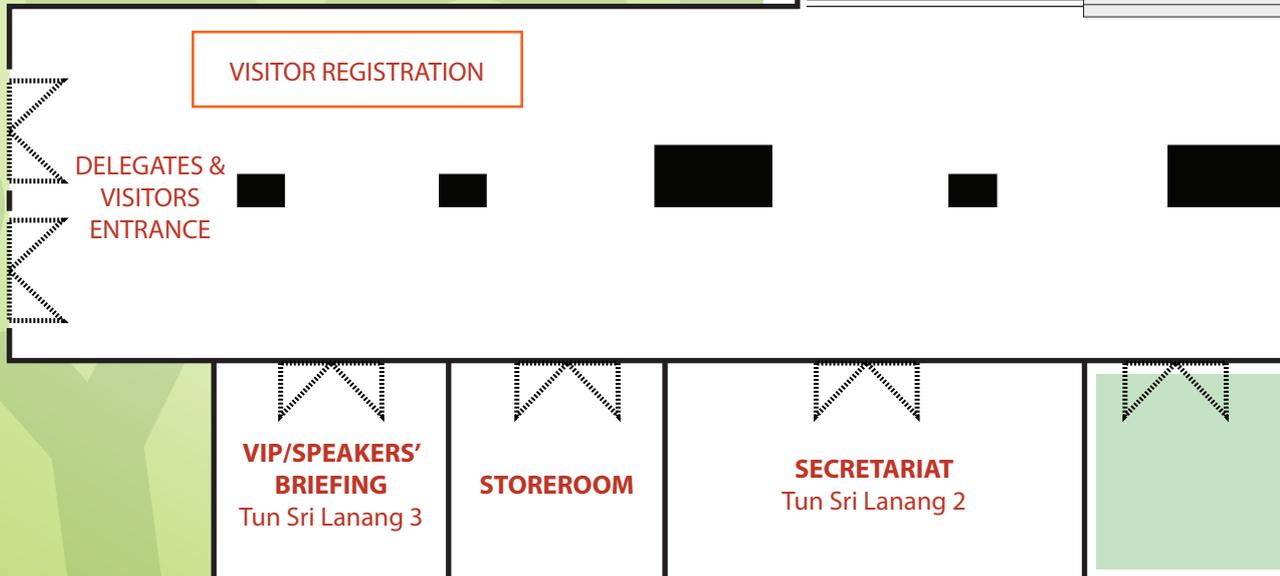
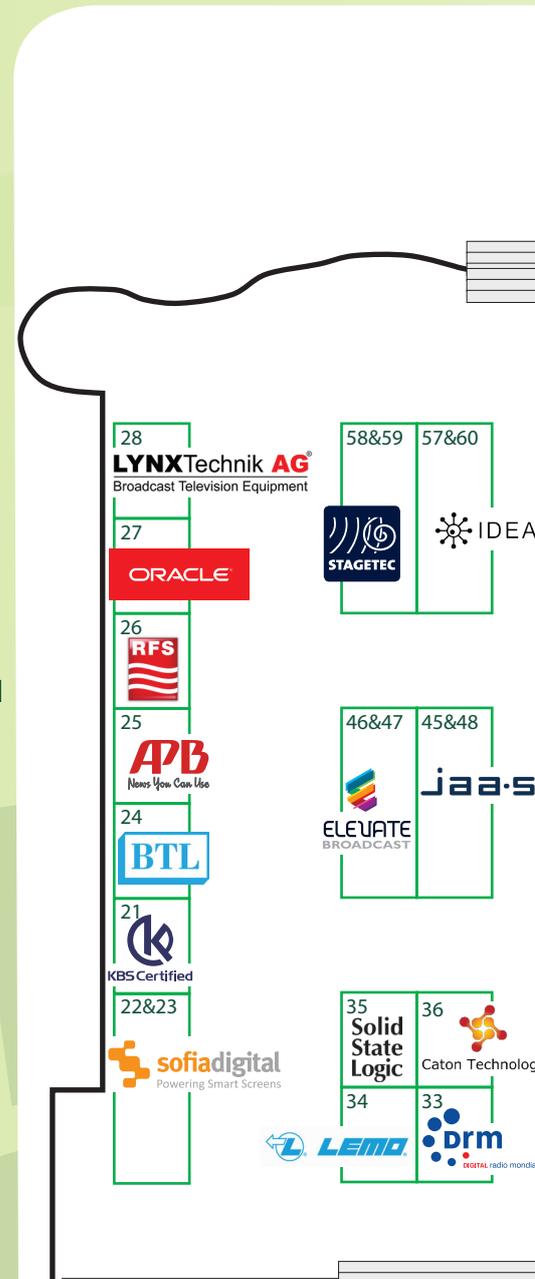


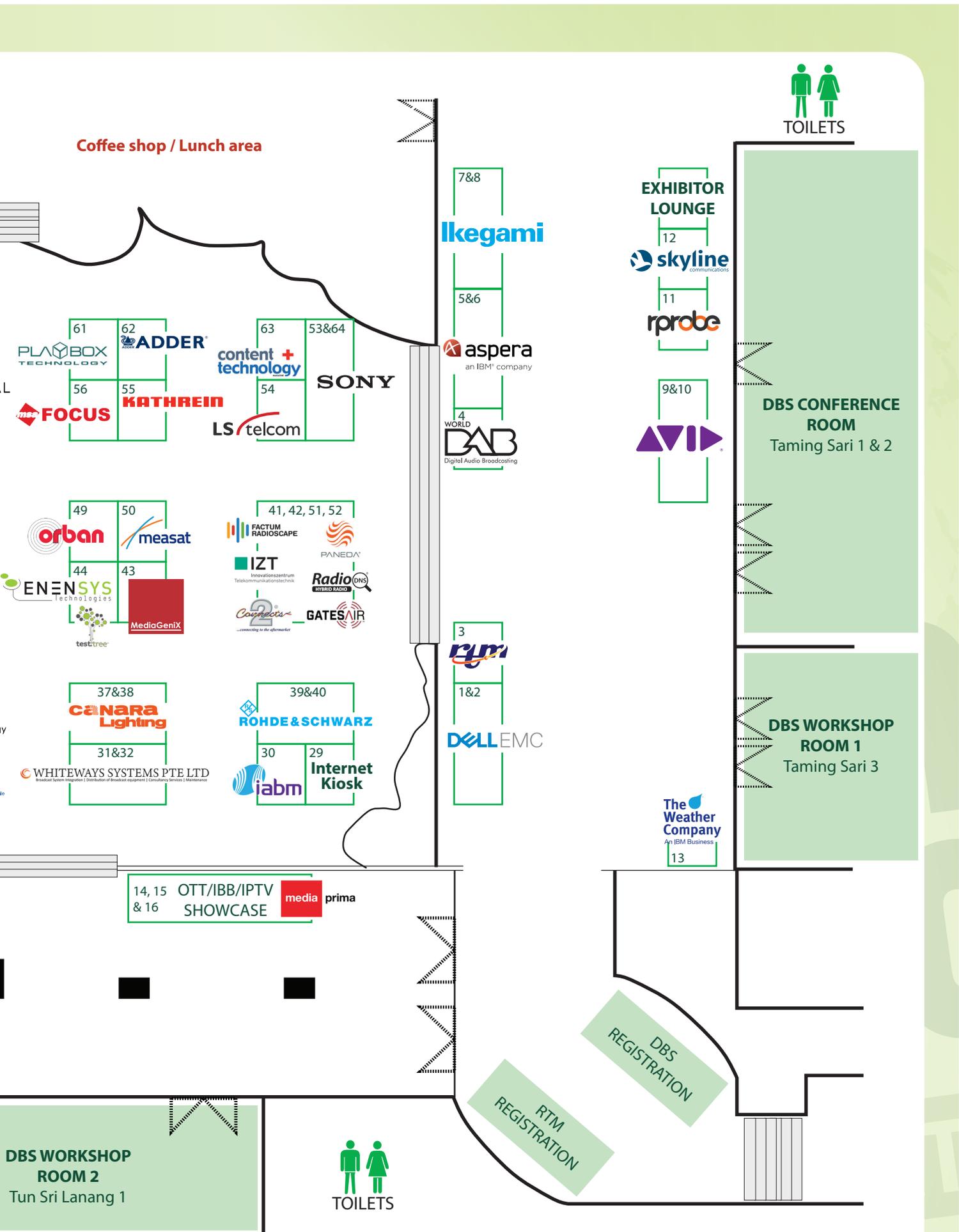
JAA Systems

JAA Systems is an international company that distribute professional equipment and provide consultation, design and integration services to broadcast and AV markets. We are solution provider with the headquarter office located at Kuala Lumpur, Malaysia. We are associated with Junger Audio Germany, a manufacturer of audio processing equipment. Besides Junger Audio, we are representing Prody's Audio/ Video IP codec, Klotz Communication's digital audio mixer for Radio, Calrec's digital audio mixer and router for TV studios and Orban's audio processor. Our products and services are targeting radio to TV stations, concert halls to convention center and from recording studios to auditorium facilities. We are here to support you professionally! Come and visit us! At this ABU 2017, we are launching a new product called Multimedia Monitoring System, MMS Lite for the first time in Malaysia. Visit us for more information!

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|---|------------------------------------|
| 1 & 2. Dell EMC | 35. Solid State Logic |
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| | 61. PlayBox Technology |
| | 62. ADDER Technology |
| | 63. Content+Technology |





Booth No 1 & 2: Dell EMC



Dell EMC brings innovation to people everywhere and organizations of all types and sizes so they can transform and thrive in the digital economy. Becoming a digital business means transforming operating models, people, and process as well as IT. We uniquely power this digital transformation by delivering best-in-class technology for applications, data, infrastructure and security – from the edge to the core to the cloud. Collectively under the banner of Dell Technologies, Dell, Dell EMC, Pivotal, RSA, SecureWorks, SecureWorks, Virtustream, and VMware align to deliver a singular goal: helping our customers transform for the future.

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Booth No 3: RTM



Radio Television Malaysia (RTM), the pioneer national broadcasting station, has undergone developmental changes over the years both in terms of technology and programming since its establishment in 1946.

Turning 71 years by April 1st 2017, RTM will continue to play a crucial leading role in serving the Malaysian public through its diverse genres that broadcast via multi-platforms including RTM Mobile and online webcasting to garner a wider audience shares.

As the national broadcaster, RTM needs to fulfill its social obligations to realize national agenda and reaches 98% of Malaysia's population through quality programme contents that propagate good values and nation building.

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Booth No 4: WorldDAB



WorldDAB is the global industry forum responsible for defining and promoting DAB, the digital radio broadcasting standard for many broadcasters around the world.

With unique cross industry representation, our 90-plus members cover 27 countries and include experts from broadcasters, regulators, network providers through to manufacturers of receivers, chips, professional equipment and automobiles.

Sharing case studies and best practice, our not-for-profit remit allows us to give unbiased advice. We support and host industry events, briefings and tailored workshops providing insights, analysis and market intelligence.

Together we define and promote DAB by offering support on all aspects of the switch from analogue to digital radio. This includes regulation, licensing, technology trials, network build out, marketing and production of digital radio content.

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Booth No 5 & 6: ASPERA



Aspera, an IBM company, is the creator of next-generation transport technologies that move the world's data at maximum speed regardless of file size, transfer distance and network conditions. Based on its patented, Emmy® award-winning FASP™ protocol, Aspera software fully utilizes existing infrastructures to deliver the fastest, most predictable file-transfer experience. Aspera's core technology delivers unprecedented control over bandwidth, complete security and uncompromising reliability. Organizations across a variety of industries on six continents rely on Aspera software for the business-critical transport of their digital assets. Please visit <http://www.asperasoft.com> and follow us on Twitter @asperasoft for more information.

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Booth No 7 & 8: IKEGAMI



Ikegami as a unified team, make customer's dreams and hopes come true."

Ikegami, which develops cutting-edge technologies to meet diverse needs, harnesses the strengths of its group to give shape to the hopes and dreams of its customers through its core competence in Image, Process and Transmission (IP&T) technologies. Ikegami will continue to demonstrate its expertise in making and executing proposals, building on its world-class capabilities in information, communication, and images.

The Ikegami name is recognized globally for its state-of-the-art television cameras, Medical cameras and CCTV equipment. World-class CMOS imagery, 4K and 8K technology, multi-format flexibility, and unparalleled customer support define the Ikegami experience for users in broadcast, sports venues, mobile production, houses of worship, education, corporate and many more applications. For more information, call Ikegami APAC.

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Website: <http://sg.ikegami.co.jp>

Booth No 9 & 10: AVID



Through Avid Everywhere™, Avid delivers the industry's most open, innovative and comprehensive media platform connecting content creation with collaboration, asset protection, distribution and consumption. Media organizations and creative professionals use Avid solutions to create the most listened to, most watched and most loved media in the world—from the most prestigious and award-winning feature films, to the most popular television shows, news programs and televised sporting events, as well as a majority of today's most celebrated music recordings and live concerts. Industry leading solutions include Pro Tools®, Media Composer®, Avid NEXIS™, Interplay®, ProSet™ and RealSet™, Maestro™, PlayMaker™, and Sibelius®.

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Booth No 11: rprobe



Rprobe is a probing platform designed for spectrum sensing applications. It allows operators, broadcasters and regulators to remotely monitor the DVB signal in real time, keeping a record of the network status with intelligence over the collected measurements. Rprobe provides transmitter systems a level of monitoring capabilities, including Transport Stream Report, RF Signal quality, Constellation, Channel Impulse Response, multi-channel measurements, IP streaming of video/audio, Spectrum viewer.

Contact:

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Booth No 12: Skyline Communications



Skyline Communications is the global leading supplier of end-to-end multi-vendor network management and OSS software solutions for broadcast, satellite, cable, telco and mobile industry. Our DataMiner network management platform enables end-to-end integration of the most complex technical ecosystems. DataMiner is integrated with over 4500 drivers to interface with devices and systems from more than 500 key industry suppliers, and offers functionalities including unlimited web access, alarming, e-mail and SMS notification, advanced automation, intelligent correlation and root cause analysis, service management, real-time SLA monitoring, user-definable key performance indicator dashboards, spectrum monitoring, mobile access, powerful CPE management, inventory and asset management.

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Booth No 13: The Weather Company



The Weather Company, an IBM Business, is the world's largest private weather enterprise, helping people make informed decisions – and take action – in the face of weather. The company offers the most accurate, personalized and actionable weather data and insights to millions of consumers and thousands of businesses via Weather's API, its business solutions division, and its own digital products from The Weather Channel (weather.com) and Weather Underground (wunderground.com).

Weather's portfolio includes the fourth most-downloaded app and a top weather app on all major mobile platforms globally; the world's largest network of personal weather stations; a top-20 U.S. website; the seventh most data-rich site in the world; one of the world's largest IoT data platforms; and industry-leading business solutions.

Weather Means Business™. The world's biggest brands in aviation, energy, insurance, media, and government rely on The Weather Company for data, technology platforms and services to help improve decision-making and respond to weather's impact on business. For more, visit business.weather.com

Booth No 14, 15 & 16: OTT/IBB/IPTV Showcase Media Prima / RTM / Astro / Hypp TV



Media Prima Berhad is the leading fully-integrated media company in Malaysia. The project of Hybrid Broadcast Broadband TV (HbbTV) in-house research and development is still ongoing from 2013 until launched digital transmission in Malaysia. The aim of the project is to develop a model which brings together broadcast and broadband connectivity in a single transmission to end user. It is the merging of migrating analog transmission into the digital broadcast including the broadband data which offered through free-to-air television stations namely TV3, 8TV, ntv7 and TV9. Exploring the cloud management system to integrate with the digital content from traditional broadcast is one of the step to design an entirely new ecosystem evolving around connected TV's to wifi, enabling applications around TV content.

Through its digital media subsidiary, tonton is Malaysia's 1st and largest home grown video streaming service with over 6.6 million registered users and is experiencing a growth of over 18,000 registrants on a weekly basis. Bringing things up a notch in April 2016, tonton was transformed into a hybrid video service alongside it's brand new apps offering both FREE membership and the newly introduced premium service - coined tonton VIP.

With the brand new service, our vision is to be the country's #1 localised video service, a must have for every Malaysian and Malaysian home. Download the tonton app from the App Store & Google Play today or visit www.tonton.com.my

Booth No 21: KBS Broadcasting Equipment Certification Center (K-BECC)



It is very important to verify the performance, reliability and stability of broadcasting equipment and quality can be guaranteed through KBS broadcasting equipment certification.

The KBS Broadcasting Equipment Certification Center (K-BECC) ensures global competence in broadcasting equipment by testing, improving and certifying the equipment in as actual broadcasting environment.

K-BECC not only issue certificate, but also provides technical support, promotion, and new product development support to the broadcasting equipment manufacturers to improve the performance of the equipment.

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Booth No 22 & 23: Sofia Digital



Sofia Digital is a worldwide pioneer in creating the new television. Digitalization, smart screens and streaming service projects open new channels for your content – we provide the technology that makes the transition simple and safe.

We focus on open standard interactive platforms, HbbTV, broadcasting automation tools as well as digital signage. Sofia Digital has been around since the advent of digital television nearly two decades ago. We help networks to bring their content to new platforms that enrich the viewer experience, generating new business. We are the architects of change.

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Booth No 24: Broadcast Technology Ltd.



Broadcast Technology Limited (BTL) is committed to providing one-stop engineering service and system integration to its clients. Headquartered in Hong Kong, BTL has representative offices in Thailand, Cambodia, Myanmar and China offices in Thailand, Cambodia, Myanmar and China.

As a distributor of world-class broadcasting and telecommunications equipment, BTL also supplies a broad spectrum of state-of-the-art broadcasting equipment and system integration to its clients. Quality after-sales service and technical support are provided to customers by our broadcasting system talents.

BTL is a trusted consultant and technical partner to media and broadcast operators, we strive to build solutions that are innovative, intuitive and inspiring, and to take digital media technology to a new level.

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Website: www.btl.com.hk

Booth No 25: Asia-Pacific Broadcasting



News You Can Use

Editec International is the publisher of Asia-Pacific Broadcasting (APB), a monthly publication that has been the voice of the broadcast and multimedia industry for more than 25 years. APB brings to decision-makers and professionals in the field, news of groundbreaking events, the hottest developments and the latest in technology trends, as well as interviews with key industry players.

In 2002, APB established DigiWorkz, the Asia-Pacific Broadcast Training Centre based in Singapore's Ngee Ann Polytechnic, to provide broadcasters from around the region with short, practical broadcast engineering and production courses. DigiWorkz also develops customised training for broadcasters in the region. It has conducted in-house courses for broadcasters in Hong Kong, Malaysia and the Philippines.

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Booth No 26: Radio Frequency Systems



RFS is a global designer and manufacturer of cable and antenna systems plus active and passive RF conditioning modules, providing total-package solutions for wireless infrastructure. RFS serves OEMs, distributors, system integrators, operators and installers in the broadcast, wireless communications, land-mobile and microwave market sectors. We provide RF Systems solutions for television & radio, HF & defence, cell-based mobile communications, in-building, in-tunnels, radio-link networks, and LMR/PMR.

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Booth No 27: Oracle Digital Media Solutions



Designed for the Convergence of Broadcast and Broadband Oracle's media and entertainment solutions provide best-in-class performance and efficiency for transcoding, digital animation rendering, streaming media, and active archiving.

Oracle technologies enable companies to maximize the value of archived digital content, profit from big data and customer analytics, create new digital revenue streams, and deliver personalized content to consumers.

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Booth No 28: LYNX-Technik AG

LYNXTechnik AG
Broadcast Television Equipment

LYNX Technik AG is a technology provider of the modular interface solutions for broadcast and professional use. LYNX Technik is an independent privately owned company with its headquarters, research & manufacturing facilities based in Weiterstadt, Germany. Sales and Support is managed from its headquarters in Germany, USA (California), and Asia (Singapore). Lynx-Technik Pte Ltd incorporated in 2013 is the Asia Pacific HQ servicing the Asia Pacific Region offering pre-sales and after sales support.

Products: audio/video/fiber conversion, audio/video distribution, fiber splitters, CWDM mux/demux, audio embedding/de-embedding, audio delay, image processing, frame synchronizers, test generators, 4K transmission solutions, rack frames and accessories.

Brands: Series 5000 rack/card based series, APPolo control system, yellobrik standalone plug and play modules and yelloGUI, Testor and Testor I like 3G digital test signal generators.

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Booth No 30: IABM



IABM is the international trade association for suppliers of broadcast and media technology. IABM members represent over 80% of the market's revenues; IABM facilitates the important networking and interaction between suppliers that shape and define the unique ecosystem of the broadcast and media technology industry. IABM supports member companies with a comprehensive range of services across market intelligence, training, events, technology, exhibitions, business standards and best practices. IABM's mission is to be an ever more powerful beacon illuminating the way forward, highly responsive to all our members' needs and helping them to successfully navigate change and prosper.

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Booth No 31 & 32: Whiteways

WHITEWAYS SYSTEMS PTE LTD
Broadcast System Integration | Distribution of Broadcast equipment | Consultancy Services | Maintenance

Whiteways is focused on the Broadcast, professional video production and post production industries. We sell whole range of products and services to broadcast, video production and post production industries. Commission large complex projects including (but not limited to) system design, supplying, installation, commissioning and training on a turnkey basis. Provide bespoke services for very specific tasks for example specialized graphics, analog to digital transition, SD to HD upgrade, archival of old Tapes and so on.

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Booth No 33: DRM Digital Radio for All



Digital Radio Mondiale (DRM) the global, open, green, flexible, cost effective digital radio broadcasting standard covering all frequency bands, has two major configurations

- DRM for large area coverage or 'DRM30' for LW, MW, SW (below 30 MHz); providing regional, national and international coverage and low power consumption.
- DRM for local coverage or 'DRM+' for the VHF bands I/II/III including FM (above 30 MHz); for local and regional coverage with broadcaster-controlled transmissions.

Both DRM configurations share the same audio coding, data and multimedia services, service linking and signalling schemes. DRM provides high quality sound and enhanced features: Surround Sound, Journaline text information, Slideshow, EPG, and emergency warning functionality.

Contact:

E-mail: projectoffice@drm.org

Booth No 34: LEMO



**LEMO pioneered and set the standard for HDTV
The global standard for HDTV fibre connector**

LEMO developed the 3K.93C Series connectors in the early stages of the introduction of HDTV, becoming the standard for high-definition TV. It is one of the only connectors being used worldwide that complies fully with SMPTE, ARIB and EBU standards for both signal and cable. LEMO's 3K.93C connectors are the standard in national and international broadcast companies.

Fast transition to HDTV

Transition to HDTV is easier than ever with LEMO. The wide range of shell styles and termination procedures, for even non-fibre experts, makes it possible for everyone to be successful in HDTV. The LEMO 3K.93C connector uses two single-mode fibre contacts, two high voltage contacts, and two signal contacts. Cable drums and cable assemblies with standard lengths are available off the shelf.

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Booth No 35: Solid State Logic

Solid State Logic

SSL Company Profile: From groundbreaking audio consoles to innovative video production systems, Solid State Logic has evolved to become the world's leading manufacturer of analogue and digital audio consoles and provider of creative tools for film, audio, video and broadcast professionals.

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facebook page: <https://www.facebook.com/SolidStateLogic>.
SSL
and www.facebook.com/SSLAsia

Booth No 36: Caton Technology



Since 1996, Caton is a US leading manufacturer of advance video encoding and Open Internet data transmission solutions. Reliable Real-Time Transport Protocol (R2TP) and Fast Files Transfer Protocol (F2TP) technologies enable secure, robust and easy-to-use data transmission for the broadcast and enterprise markets even in the harshest of network conditions. More information is available at www.catontechnology.com.

Booth No 37 & 38: Canara Lighting



Canara Lighting, leading global studio lighting system manufacturer provides total studio lighting solution for broadcasting industry worldwide for over 40 years. They provide consultancy, design, project management, manufacturing, installation, commissioning, training and after sales service under total solution. Product range includes hi-tech LED and other lighting fixtures, rigging equipment, cabling and networking, dimming and lighting console. Products are as per international standard and CE certified. Over 800 installations are using their equipment satisfactorily. World class manufacturing facility is located in India. Currently, their products are exported to Asian countries including China, Middle East, African countries and European countries.

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Booth No 39 & 40: Rohde & Schwarz



Rohde & Schwarz has been active in the field of TV and sound broadcasting for almost 70 years. We supply solutions along the entire broadcasting value chain, starting with post production in the studio and ending with transmission of the broadcasting signal. We also have the T&M and monitoring equipment required for broadcasting operations. Special T&M equipment from R&S® is used to develop and manufacture consumer audio and video products efficiently and in line with specifications while ensuring high quality. Rohde & Schwarz offers a complete product line to support the broadcast industry in rolling out the high-definition 4K and HDR standards. Its encoding and multiplexing solutions are used in test operations and initial UHD TV services. The company is also involved in defining future standards, effectively supporting media development.

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Booth No 41, 42, 51 & 52: DAB+ Pavilion WorldDAB / Connects2 / Factum Radioscape / GatesAir / IZT / Paneda / RadioDNS

WorldDAB will present a DAB+ pavilion in collaboration with DAB+ supply chain companies with a footprint in the Asia Pacific region - Connects2, Factum Radioscape, GatesAir, IZT, Paneda and RadioDNS. Come and meet the experts who can provide information and advice on implementing DAB+ digital radio.



Connects2

Connects2 is Europe's largest supplier of retro fit DAB black box solutions to all the major European Vehicle Manufacturers. Connects2's SmartDAB and AutoDAB offer a full range of aftermarket solutions to integrate Digital radio into any car. Connects2 Ltd is the market leader in Europe for the supply of car audio interfaces, providing electronic boxes that allow aftermarket radios and other audio devices to be fitted seamlessly into most vehicles. The Connects2 brand has become firmly associated with quality and has achieved a position where major vehicle manufacturers and car audio manufacturers regularly commission us to design and develop specific interface solutions for them. To see the full range of DAB solutions visit www.autodab.com.



Factum Radioscape

Since 1997, Factum and Radioscape have been delivering innovative, reliable and cost-effective products for digital radio broadcasting. Factum Radioscape products cover the full digital radio broadcast signal chain from audio encoding, data insertion, multiplexing, distribution and multiplex management to supervision, monitoring and analysis.

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GatesAir

GatesAir architects market-leading solutions for over-the-air broadcasting and public safety communications, leveraging the best use of wireless spectrum to maximize performance for multichannel, mission-critical services. In broadcasting, GatesAir powers over-the-air analog and digital radio/TV stations and networks worldwide with the industry's most operationally efficient transmitters. We continue to innovate

new design efficiencies with each product generation that reduce size, energy use and more to establish the industry's lowest total cost of ownership.

GatesAir's innovations extend to the studio, where turnkey solutions help our customers create and manage content across on-air and production facilities in alignment with today's rapidly evolving requirements. This forward-looking philosophy extends to innovations in media transport, where both broadcasters and public safety/emergency response teams utilize our solutions to reliably move voice, data, audio and video between locations using traditional and emerging connections, from RF to IP.



IZT

Since 1997, the Innovationszentrum für Telekommunikationstechnik GmbH IZT provides equipment for signal generation, receivers for signal monitoring and recording, transmitters for digital broadcast, digital radio systems and channel simulators.

IZT's portfolio includes the IZT DAB/DRM ContentServer – a highly reliable professional broadcast system for Digital Radio Broadcasting.

It combines audio encoding, data service management and ensemble/service multiplex generation in one device. Its reliability has permanently been proven in numerous DAB head-end installations. In addition, IZT's signal generators and RF monitoring receivers are powerful laboratory tools, for example for the analysis of broadcast signals or for the development radio receivers.



Paneda

Paneda acts on the international market and offers complete solutions for digital radio DAB Head-End with its brand new generation of systems. The new system enables simplicity and flexibility as well as a range of different kind of setups, from traditional hardware to Cloud based solutions offering the most efficient system.



RadioDNS

RadioDNS is the international not-for-profit membership organisation that promotes hybrid radio, the seamless combination of broadcast radio technologies and IP connectivity. The organisation creates open technical standards that enable interoperability between content providers and devices, and we liaise with all parts of the radio and consumer electronics ecosystems to develop new functionality that can be delivered alongside broadcast radio using IP. We also provide support for developers wanting to create new solutions around hybrid radio, and to test platforms and devices.

Booth No 43: MediaGeniX



MediaGeniX develops and implements WHATS'On, a market leading Broadcast Management System that is the backbone for media companies such as broadcasters, on-demand service providers, platform and telco operators.

With this integrated software suite, MediaGeniX guarantees customers a state-of-the-art solution for:

- VOD & Linear Scheduling
- Contracts & Rights Management for VOD/linear
- Content (Lifecycle) Management
- Promotion & Interstitial Management
- Media (Metadata) Management
- Material Workflow Management
- Compliance
- Analytics & Finance

WHATS'On not only enables content providers to easily schedule content in line with strategic, editorial, budgetary, operational and regulatory requirements, it provides them with the central hub they need to streamline workflows and optimise core processes.

MediaGeniX serves top-tier customers in Asia, EMEA and North/South America. Over 1,700 channels and on-demand services are managed with WHATS'On, with 10,000+ users at more than 70 media networks.

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Booth No 44: ENENSYS Networks



ENENSYS Networks offers technologies for Digital Terrestrial TV, Targeted Content Insertion and Switches & IP Transport. Products include Seamless ASI and IP changeover switches, Local content and Advertising Insertion, multi-standard SFN adaption and Single Illumination solutions for DVB-T/T2 and ISDB-T.

Test-Tree, provides high performance RF and TS monitoring probes for multiple standards for use by broadcasters and network operators, as well as products for signal capture,

analysis and generation for field and lab/R&D purposes. ENENSYS and Test-Tree are based in Rennes, France, with partners worldwide offering local sales and support.

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Booth No 45 & 48: JAA Systems



JAA Systems is an international company that distribute professional equipment and provide consultation, design and integration services to broadcast and AV markets. We are solution provider with the headquarter office located at Kuala Lumpur, Malaysia. We are associated with Junger Audio Germany, a manufacturer of audio processing equipment. Besides Junger Audio, we are representing Prodis's Audio/Video IP codec, Klotz Communication's digital audio mixer for Radio, Calrec's digital audio mixer and router for TV studios and Orban's audio processor.

Our products and services are targeting radio to TV stations, concert halls to convention center and from recording studios to auditorium facilities. We are here to support you professionally! Come and visit us!

At this ABU 2017, we are launching a new product called Multimedia Monitoring System, MMS Lite for the first time in Malaysia. Visit us for more information!

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Booth No 46 & 47: Elevate Broadcast Pte



Elevate Broadcast Pte Ltd is headquartered in Singapore with local offices in Malaysia and Myanmar and servicing projects throughout Asia. Elevate Broadcast provides services in three areas: Consulting, Systems Integration and Product Supply. Each customer is unique and has a specific set of challenges from startups to established broadcasters, Elevate Consulting services can help customers with personalized solutions to align requirements with technologies in areas such as workflow, production and infrastructure. Elevate Broadcast turnkey Project Integration services from concept through commissioning. Product supply from top manufactures and specialized products. ABS is able to support any size operation.

Contact:
Tel: +65 6871 4352 E-mail: sales@elevatebroadcast.com

Booth No 49: Orban



With the world renowned OPTIMOD we are the leading manufacturer of Television Loudness Controllers , AM, FM , DIGITAL RADIO and Streaming audio processors. Our engineering team in San Leandro, USA is headed by the companies founder Bob Orban. Since 2009 manufacturing – worldwide sales and technical support is under the supervision of Orban Europe GmbH in Germany.

From the BBC to CNN many Broadcasters rely on the OPTIMOD to ensure that their Broadcast audio quality is perfect, their levels under control with no artefacts.

ORBAN opened it's office in Ludwigsburg in 2002 to spearhead European Sales and Codec Engineering. OPTIMOD manufacturing is performed in Germany and since 2009 ORBAN Europe is responsible for ORBAN Global sales.

Orban Europe Management

Mr Roger Sales - Managing Director
Mr Peter Lee - Vice President, Director of Sales

Booth No 50: MEASAT



MEASAT is a premium supplier of services to leading broadcasters, Direct-To-Home (DTH) platforms and telecom operators. With capacity across six (6) communication satellites, MEASAT provides satellite services to over 150 countries representing 80% of the world's population across Asia, Middle East, Africa, Europe and Australia.

Working with a select group of world-class partners, MEASAT also provides a complete range of broadcast and telecommunications solutions. Services include UHD/HD and SD video playout, video turnaround, co-location, uplinking, broadband and IP termination services. For more information, please visit www.measat.com.

Booth No 53 & 64: SONY



Sony is a leading manufacturer of audio, video, game, communications, key device and information technology products for the consumer and professional markets. Sony's Broadcast & Content Creation Solutions Asia Pacific business is established under Professional Solutions Company (PSAP), a division company under Sony Corporation of Hong Kong Ltd. It markets Sony's leading broadcast systems, professional video and audio products in Asia other than Japan. It also provides customized business solutions, comprehensive technical support and after-sales service to help Sony's customers stay at the forefront of their business. Contact us at: pro.info@ap.sony.com

Booth No 54: LS telcom



LS telcom is the leading supplier of coverage & frequency planning, coordination and optimisation solutions for broadcast networks.

Its portfolio includes network planning software, consulting, engineering and measurement services. Training on technologies, standards, and regulations as well as turnkey transmitter installations complete its area of expertise. LS telcom now also provides an unprecedented service; it carries out very cost-effective antenna measurements via remote controlled miniature helicopter.

Its cutting-edge broadcast planning software CHIRplus_BC for TV, DVB-T (& T2 & T2-lite), ISDB-T, ATSC (3.0), DTMB, CMMB, FM, LF/MF DAB(+), DRM(+) was the first of its kind on the market for these technologies.

LS telcom
Im Gewerbegebiet 31-33
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Milos Pavlovic - E-mail: MPavlovic@LStelcom.com
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Booth No 55: Kathrein-Werke KG



KATHREIN-Werke KG is an international enterprise active in antenna and communications technology. For more than 95 years the group of companies has been developing, producing and marketing a wide range of antenna systems and signal processing products. Always being one step ahead in technology has ensured that Kathrein is among the leading companies in the world market. The Kathrein Group is active in the following product ranges:

- Radio and TV broadcast antennas, filters and combiners
- FM, TV, DAB, DAB+, DMB, DVB-T, DVB-T2, DTV, and DVB-H antenna systems
- Ground-to-Air (GTA) antenna systems
- CATV systems and signal processing equipment
- Broadband communication systems, HFC nets and headends
- IPTV Solutions
- Signal meters and test equipment
- Mobile communication antennas and reception systems
- Combiners and amplifiers for mobile communication base stations
- Car antennas and electronics
- RFID systems
- Kathrein Smart Monitoring

Offering over 5,000 different products covering many different fields of telecommunication technology, Kathrein is one of the largest and oldest antenna manufacturers worldwide. One of our basic principles is to constantly look for perfect solutions to all our customers' requirements, assisted through our traditional Quality Assurance System which is certified according to DIN EN ISO 9001/14001.

Booth No 56: MSA Focus International Ltd



MSA Focus International Limited a world-leading developer of broadcast management systems, with solutions successfully installed at client sites in at least 30 countries, across four continents, since 1988. Worldwide market presence has led to the establishment of a global support network with offices in Europe, America and Asia. As part of MSA Inc, MSA Focus is unique among BMS suppliers. MSA, which celebrates its 50th anniversary this year, services several market sectors, specializing in the development of common principles of best practice in data management and analysis.

For 50 years it has remained true to its research-driven roots, while consistently nurturing a spirit of innovation. This has provided MSA Focus the ability to concentrate on developing leading-edge applications for the broadcasting sector. Experienced, international teams of broadcast analysts, integration specialists and developers leverage cutting-edge technologies and modern development tools for the development, implementation and support of our solutions.

Integration to systems from complementary suppliers remains an important factor, but the main strategy for MSA Focus is delivering business process solutions to improve the productivity and profitability of our clients. This is achieved by specialization in a single class of product while drawing on expertise within MSA.

MSA Focus International Ltd
B-1008, Block B, Kelana Square No. 17, Jln SS7/26, 47301 PJ, Selangor
Tel: 603 7806 1358
E-mail: marketing@msafocus.com
Website: www.msafocus.com

Booth No 57 & 60: IDEAL Systems



Ideal is Asia's largest broadcast systems integrator and is a multinational organization providing innovative media and design solutions to sectors including broadcasting, telecoms, and media. Ideal Systems provides services that range from systems consultancy and design conceptualization, to systems deployment and support of broadcast systems, facilities, and studios, to billing and subscriber-management solutions.

Ideal Group operates from 11 regional offices in nine countries across Asia. The company employs over 150 full time staff members in its offices in Hong Kong (main headquarters), China, Taiwan, India, Japan, Singapore (S.E.A. headquarters), Thailand, Indonesia, Malaysia and Dubai.

Contact:
Updesh Singh
Tel: +60 12 380 1713

Booth No 58 & 59: Stagetec Asia



Stagetec Asia is a Malaysia-based international distributor, which provides audio solutions specialised in audio broadcast and live sound for broadcast and media industry. Stagetec Asia is also a member of the Stage Tec Berlin, the global leader in manufacturing of high-quality digital audio products. Their flagship consoles Platinum Series & Nexus has landed in many local TV & Radio studio in Malaysia since 2005. Stagetec Asia has served more than 10 years for national and international customers including public and commercial broadcasters, TV and radio production companies. Stagetec Asia also a partner with other brands in the market such as DHD, Zenon Media, Sonifex, RTW, Linear Acoustic, Minnetonka, Merging, ADAM, AVT, Mobile Viewpoint and Riedel to serve the purpose in providing a complete audio solutions.

For further details you may go to www.stagetecasia.com or e-mail us at sales@stagetecasia.com.

Booth No 61: PlayBox Technology



Cloud-based fully redundant automatic remote playout.

With over 17,000 installed channels around the world, PlayBox Technology is the global leader in developing and supplying server-based playout and channel branding systems. Many of these are controlled remotely using Internet Protocol. Building on long experience, CloudAir gives the broadcaster a window through which to access their playout and servers through one easy-to-use interface, from practically any location.

CloudAir eliminates the need for dedicated hardware platforms. Accessible on a monthly software-as-a-service basis, it enables service providers to launch new channels for third-party customers. Easy deployment over public, private or hybrid cloud infrastructures.

Contact: Iulian Ionescu
Tel: +6019-668 9100
Office Contact number: +603-76610478

Booth No 62: ADDER Technology



Adder Technology design and manufacture a range high performance KVM switches, extenders and connectivity solutions. These products provide reliable control of multiple local, remote and global computer resources. Across the audio and visual broadcasting industry Adder Technology have connectivity solutions that enable gallery control, post-production, outside broadcast and radio station workflows with instant switching between remote computers from one location. Users have complete flexibility in their setup which provides improved desk ergonomics and free-flow computer access with the Adder Pro4, lossless extension and pixel perfect video with the AdderLink Infinity and complete matrix functionality with the AdderLink Infinity Manager.

Contact

ADDER TECHNOLOGY

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Booth No 63: C+T



For over 13 years Content+Technology magazine has been serving content production and delivery professionals throughout Australia, New Zealand, Southeast Asia and beyond.

In 2012, to better serve those readers, we established two separate editions - Asia and Australia/New Zealand. C+T has always acknowledged the interconnected nature of the Asia-Pacific - in technology dissemination, project collaboration and, especially, in the flow of knowledge and people.

C+T Asia (Circ. 3250) is distributed from Singapore, while C+T ANZ (Circ.3480) is produced from Sydney. Both are supported by our weekly C+Tmail eNewsletter.

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DBS: 13 years of growth

From modest beginnings in 2005, the Digital Broadcasting Symposium has grown to become one of the world's leading events for the broadcasting industry.

Held annually in Kuala Lumpur, it now attracts more than 1,000 participants. In 2016, they represented 226 organisations in 52 countries.

Comprising a conference, an exhibition and a series of workshops, the symposium is designed to provide broadcasters with the information needed to make the right decisions in the rapidly-changing digital age.

When DBS began 13 years ago, many Asian broadcasters had not yet gone digital. Many more have now made the transition, or are in the process of doing so. At the same time, a whole new range of digital technologies has become available, offering exciting new opportunities – but also difficult decisions – for broadcasters. DBS aims to help them stay ahead of the curve.

The first symposium, in October 2005, was co-organised by the ABU and the Singapore-based trade publication Asia-Pacific Broadcasting (since 2006 the ABU has been the sole organiser). Under the theme 'Challenges for the Broadcasters', it offered guidance for broadcasters as they prepared to embark on the digital transition. It attracted 245 participants – fewer than one quarter of the number today.

The growth in participation reflects the relevance of the issues covered at the conference and workshops, and the strong interest in the products and services showcased at the exhibition.

Particularly striking has been the rise in the number of exhibitors. In 2005, DBS attracted four exhibitors: a small number but a start. By 2008 this had risen to 20, and by 2011 to 29. In 2016 the number of exhibitors reached 46.

The ABU deeply appreciates the support for the symposium shown by those who take part each year: the sponsors, the conference speakers, the exhibitors and the workshop organisers. The symposium's success is your success. We thank you and are delighted to welcome you to DBS 2017.



46 exhibitors from 14 countries • 52 exhibition booths





1,032 participants from 52 countries • 226 organisations • 71 experts/speakers



Recognising Excellence in Broadcast Engineering

Winners of the 2016 ABU Engineering Awards were announced during the Technical Committee meeting in Bali.

The **ABU Developing Broadcasters' Excellence Award** was bestowed on Mr Radeep Maharjan, Senior Technical Officer -Association of Community Radio Broadcasters (ACORAB) of Nepal. Mr Maharjan was recognised for his contributions to technical services of community radio in Nepal.

The **ABU Broadcast Engineering Excellence Award** went to Mr Tharaka Gajaba Mohotty, Director Engineering, MTV/ MBC Channels – Sri Lanka and ABU Technical Committee Vice Chairman. He won the prize for his outstanding contributions to next generation broadcasting infrastructure development.

The **ABU Engineering Industry Excellence Award** was bestowed on Mr Byeong-Ryeol Park of Korean Broadcasting System (KBS). He made significant contributions towards creating the basis for a terrestrial UHD broadcasting service.



Mr Radeep Maharjan receiving his award from Dr Frederik Ndolu, Member of RRI Supervisory Board



The Award was presented to Mr Doo-Hyung Kang, ABU Technical Liaison Officer at KBS, on behalf of Mr Park by Dr Javad Mottaghi, ABU Secretary-General

The **ABU Green Broadcast Engineering Award** sponsored by KOBA was shared by China Central Television (CCTV-China) and Islamic Republic of Iran Broadcasting (IRIB). CCTV was recognized for exploration and innovation for Building the Green Data Centre while IRIB found their efforts recognised for saving energy demands for broadcasting.



Mr Zhuowei Huang who represented CCTV received the award from Mr Youngseok Chae, Senior Engineer at KBS



Mr Masakazu Iwaki, ABU Technical Committee Chairman, presented the award to Mr T. Gajaba Mohotty



Mr Y. Chae also presented the award to Dr Abbas Naseri Taheri, Advisor to IRIB President and Director General for International Affairs of IRIB-Iran



Dr Narichika Hamaguchi, Senior Manager, Planning Division, Engineering Administration Department, NHK-Japan, received the prize on behalf of his team from Mr Rahadian Gingging, Director of Technology and New Media at RRI



Mr Hamid Nayeri, Director of International Technical Affairs at IRIB-Iran, presented the award to Mr Kachan Kannika of NBTC on behalf of Mr S. Suansook



Mr Terence Yiu received the award from Mr Hamid Nayeri of IRIB-Iran



ABU Technical Review Prize 2016

The **Best Article Award** went to a team of writers from NHK-Japan who authored “Automatic Generation System of Japanese Sign Language (JSL) with CG Animation of Fixed Pattern Weather Information”. They are Mr Nobuyuki Hiruma, Ms Makiko Azuma, Mr Tsubasa Uchida, Mr Shuichi Umeda, Mr Taro Miyazaki, Mr Naoto Kato and Mr seiki Inoue.

The **First Commended Article Prize** was awarded to Mr Supatrasit Suansook of the National Broadcasting and Telecommunications Commission, NBTC-Thailand, who authored “Digital Terrestrial Television in Thailand: Technical Aspects”.

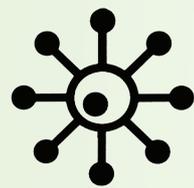
Mr Terence Yiu of Phoenix Satellite Television Co Ltd, Phoenix TV-Hong Kong, won the **Second Commended Article Prize** for his article titled: HD Broadcast Upgrade Project for Phoenix TV.

The ABU Distinguished Service Award 2016 which is the ABU Technology’s highest accolade was bestowed on Mr Yasuto Hamada, President of NHK GAKUEN (NHK Academy of Distance Learning), Japan. He was recognized for his outstanding achievements and contributions by an individual to the broadcasting industry.



Mr Tomohiro Saito of NHK-Japan accepted the award on behalf of Mr Yasuto Hamada from Dr Javad Mottaghi, ABU Secretary-General





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