

PRESS RELEASE

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Fraunhofer IIS Conducts Successful Audio Codec Technology Workshops in South East Asia

Erlangen, Germany, September 19, 2013 – Indonesia and Malaysia are on the threshold of a new age in digital TV broadcasting service. This August, Fraunhofer IIS partnered with the Malaysian Commission for Multimedia and Communications (MCMC) and the LPP Televisi Republik Indonesia (TVRI) to host two highly successful workshops on audio coding technologies in Cyberjaya, near Kuala Lumpur and in Jakarta. The workshops addressed state-of-the-art audio codecs for digital TV broadcasting, and were attended by over 170 senior executives of broadcast stations, system integrators, regulators and other stakeholders in the digital TV broadcasting industry in Malaysia and Indonesia.

Unlike analog TV broadcasting, digital TV offers excellent opportunities for an enhanced audio experience. This includes immersive surround sound comparable to cinema, Blu-ray Disc or DVD sound. The ISO-MPEG standard High Efficiency Advanced Audio Coding (HE-AAC) is the globally established broadcast multichannel audio codec and deployed in more than 6 billion devices. Thanks to its unique combination of high-quality audio at low bit rates and audio-specific metadata support, it is the perfect audio solution for TV broadcast and multiscreen delivery.

Indonesia's and Malaysia's new digital TV broadcasting services will utilize DVB-T2. It is expected that the implementation phase for setting up the digital TV networks will start by the end of this year.

Among the topics addressed at the workshops were channel configurations and bandwidth recommendations, singlecast/simulcast scenarios, audio specific metadata for loudness normalization, dynamic range compression and downmix behavior, as well as audio description, Dialogue Enhancement, multiplatform delivery, DASH streaming and mobile reception. Importantly, the role of set-top boxes in providing Emergency

Head of press and public relations

Thoralf Dietz | Phone +49 9131 776-1630 | thoralf.dietz@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | Am Wolfsmantel 33 | 91058 Erlangen, Germany | www.iis.fraunhofer.de |

Head of Marketing Communications Audio & Multimedia

Matthias Rose | Phone +49 9131 776-6175 | matthias.rose@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | www.iis.fraunhofer.de

US Contact

Jan Nordmann | Phone +1 408 573 9900 | Cell +1 408 390 6698 | press@dmf.fraunhofer.org | Fraunhofer USA, Inc. | Digital Media Technologies* | 100 Century Center Court | Suite 504 | San José, California 95112 | www.dmf.fraunhofer.org

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Warning Services was also explored. A series of live demonstrations provided practical information on all the above aspects.

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Mrs. Azlina Mohd Yousef, Director, Digital Switchover Department, MCMC, who delivered the Keynote Address at the event in Malaysia, said: "Audio solutions such as 5.1 surround sound greatly enhance the TV experience when coupled with improved picture quality. The sound experience can further be enhanced by providing a higher number of channels, such as 7.1 and even 22.1 for Ultra-HDTV. The Fraunhofer workshop provides in-depth information on the possibilities of audio coding technologies and the features of HE-AAC."

Welcoming the participants in Jakarta, Mrs. Erina Tobing, Technical Director at TVRI said: "Digital TV is not just about improved picture quality and sound. It brings together a very powerful platform for the delivery of new and interesting TV services to audiences. We are happy to note that Fraunhofer IIS, a partly publicly funded German research organization, is conducting this important workshop on audio coding technologies for TV broadcasting."

Delivering the keynote address at the workshop in Jakarta, Mrs. Woro Indah Widiastuti, Director for Special Telecommunication, Public Broadcasting and Universal Services, Ministry for Information and Communication Technologies, Govt. of Indonesia, said: "Audio coding has become an important enabling technology for state-of-the-art digital TV and multimedia systems. If broadcasters select their audio coding technologies carefully, their services will be delivered to mobile devices and on OTT. The workshop will inform us all of the possibilities of audio coding and the features of HE-AAC in future-proofing for delivery to all devices from all platforms."

Toni Fiedler, representing Fraunhofer IIS, added: "As a leading research organization, Fraunhofer is always at the forefront of emerging broadcast technologies. HE-AAC is currently the most innovative and most efficient audio codec. Fraunhofer is supportive of broadcasters and the digital TV broadcasting industry in building an understanding and implementing this technology in their own digital TV broadcasting networks."

About Fraunhofer

The Audio and Multimedia division of Fraunhofer Institute for Integrated Circuits IIS, based in Erlangen, Germany, has been working in compressed audio technology for more than 25 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is universally credited with the development of mp3 and co-development of the AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including Fraunhofer Cingo for virtual surround, Fraunhofer Symphoria for automotive 3D audio, AAC-ELD for telephone calls with CD-like audio quality, and Dialog Enhancement to allow TV viewers to adjust dialog loudness as they desire.

Through the course of more than two decades, Fraunhofer IIS has licensed its audio codec software and application-specific customizations to at least 1,000 companies. Fraunhofer estimates that it has enabled more than 6 billion commercial products worldwide using its mp3, AAC and other media technologies.

The Fraunhofer IIS organization is part of Fraunhofer-Gesellschaft, based in Munich, Germany. Fraunhofer-Gesellschaft is Europe's largest applied research organization and is partly funded by the German government. With 22,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 66 Institutes conducting research in a broad range of research areas.

For more information, contact Matthias Rose, matthias.rose@iis.fraunhofer.de, or visit www.iis.fraunhofer.de/amm.