

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

PRESS RELEASE

mp3 developers to receive esteemed Eduard Rhein Award

Erlangen/Munich, October 13, 2015: The Eduard Rhein Foundation has selected Prof. Dr.-Ing. Dr. h.c. Karlheinz Brandenburg, Dr.-Ing. Bernhard Grill and Prof. Dr.-Ing. Jürgen Herre to receive the 2015 Technology Award of the Eduard Rhein Foundation for their significant contributions to the development and implementation of mp3. The audio coding standard forever changed the world of music with its ability to allow music lovers to save their entire music library on a device as small as a matchbox for the very first time.

The Eduard Rhein Foundation will present the award at a festive ceremony to be held in the Hall of Fame at the Deutsche Museum in Munich, Germany, on October 17. The 2015 Technology Award will be handed over to Karlheinz Brandenburg, Bernhard Grill and Jürgen Herre, three members of the mp3 team, to honor their "decisive contributions to the development and practical implementation of the mp3 audio coding technique."

Previous recipients of the foundation's basic research awards include Shannon and Viterbi, absolute giants in their field of research. Naturally, being awarded ourselves is a great honor to us," explains Jürgen Herre, chair holder for Perceptual Audio Coding at Friedrich-Alexander University Erlangen-Nürnberg (FAU).

Dr. Bernhard Grill, head of the Audio & Multimedia division at the Fraunhofer Institute for Integrated Circuits IIS, adds: "mp3 is the result of a big team's hard work and persistency to find a way to reduce the size of audio files without risking loss of quality. Today, mp3 is considered the universal standard for digital music in entertainment electronics worldwide."

Head of Corporate Communications

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@dmt.fraunhofer.org
 Fraunhofer USA, Inc.

 Digital Media Technologies*
 100 Century Center Court
 Suite 504 | San José, California 95112 | www.dmt.fraunhofer.org

PRESS RELEASE October 13, 2015 || Page 1 | 3



FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

Karlheinz Brandenburg, director of the Fraunhofer Institute for Digital Media Technology IDMT in Ilmenau, remembers: "When developing mp3, we envisioned the technology's application in the field of digital radio serving millions of users. Today, there are billions of devices working with the mp3 format, greatly exceeding the expectations of our initial vision."

The awardees and their contributions

Each party involved played a major role in the development of mp3 from Karlheinz Brandenburg's dissertation delivering the scientific fundamentals for the development of mp3, to Bernhard Grill's impactful role in implementing the software and Jürgen Herre working out a technology for efficiently coding stereo signals.

Today, Brandenburg is director of the Fraunhofer IDMT in Ilmenau, Grill heads the Audio & Multimedia division at the Fraunhofer IIS in Erlangen and Jürgen Herre is the chief scientist of the Audio & Multimedia division at Fraunhofer IIS.

mp3 – A success story

Thanks to mp3 and its successor AAC, Fraunhofer IIS is the leading developer and provider of audio coding technologies worldwide. Today, a team of more than 200 engineers is working on audio and multimedia solutions for automotive, communications, digital broadcasting, mobile entertainment and streaming applications. Recent products include: Fraunhofer Cingo for virtual surround and 3D sound, Fraunhofer Symphoria for automotive 3D audio, the audio codec EVS delivering crystal clear mobile phone calls and MPEG-H Audio which provides immersive 3D sound and enables television viewers to adjust the dialogue volume to suit their personal preferences.

Advanced technologies developed at Fraunhofer IDMT in Ilmenau include solutions for live and installed 3D-sound for mega events such as Bregenz Festival or planetariums.

The Eduard Rhein Awards

In 1976, Eduard Rhein launched his foundation with the objective of supporting technical innovations in the field of TV and radio broadcasting. As chief editor of the German program guide "Hörzu" his passion for technology had already become evident when he introduced a technology page to the magazine that focused on the latest

PRESS RELEASE

October 13, 2015 || Page 2 | 3



FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

developments in broadcasting. In addition, when he first set up the foundation, he contributed 2 million DM out of his private savings. Since then, the Eduard Rhein Awards have honored leading figures in the field, such as Andrew Viterbi for the Viterbi algorithm or WWW creator Tim Berners-Lee for outstanding achievements in research, education, art and culture.

PRESS RELEASE

October 13, 2015 || Page 3 | 3

About Fraunhofer

When it comes to innovative audio technologies for the rapidly evolving media world, Fraunhofer IIS stands alone. For more than 25 years, digital audio technology has been the principal focus of the Audio and Multimedia division of the Fraunhofer Institute for Integrated Circuits IIS. From the creation of mp3 and the co-development of AAC to the future of audio entertainment for broadcast, Fraunhofer IIS brings innovations in sound to reality.

Today, technologies such as Fraunhofer Cingo for virtual surround sound, Fraunhofer Symphoria for automotive 3D audio, AAC-ELD and EVS for telephone calls with CD-like audio quality, and MPEG-H Audio that allows television viewers to adjust dialogue volume to suit their personal preferences are among the division's most compelling new developments.

Fraunhofer IIS technologies enable more than 8 billion devices worldwide. The audio codec software and application-specific customizations are licensed to more than 1,000 companies. The division's mp3 and AAC audio codecs are now ubiquitous in mobile multimedia systems.

Fraunhofer IIS is based in Erlangen, Germany and is a division of Fraunhofer-Gesellschaft. With nearly 24,000 employees worldwide, Fraunhofer-Gesellschaft is comprised of 66 institutes and research units making it Europe's largest application-oriented research organization.

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