

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

PRESS RELEASE

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Real-time Video Production: Fraunhofer IIS Introduces the World's Fastest Portable Multi-Camera System at the IBC

Erlangen/Amsterdam, September 2, 2015 – IBC, hall 8, booth B 80: At the 2015 International Broadcasting Convention, the Fraunhofer Institute for Integrated Circuits IIS is introducing HIGGS, the world's fastest portable multi-camera system for live video productions. HIGGS supports up to five portable cameras and features an easy-to-use app including a flexible video editor. Video footage can be broadcasted to all major Content Distribution Networks in real time.



The HIGGS multi-camera video system from Fraunhofer IIS enables live streaming by using up to five portable cameras and a flexible, easy-to-use video-editing app.

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Dropping into the halfpipe and soaring high above its walls. Then, teetering briefly on the steel edge. A close-up shot showing the concentrated face of the skateboarder. Right before flying into the trick, cut to a detailed shot of the skateboard. The next camera perspective gives the viewer the feeling of gliding through the air together with the skateboarder. Cut to the clean landing, then a long shot showing jubilant fans. Finally, zoom into the radiant eyes of the pumped out skateboarder.

Don't get confused, that's not a movie script but stems from a live transmission. Or better put, a high-quality yet cost-effective video production that can be streamed directly to Content Distribution Networks (CDNs) all around the world. »HIGGS enables users to tell their own personal story from different perspectives. That's a world first!« says Wolfgang Thieme, head of the Digital Camera Systems Group at Fraunhofer IIS. »HIGGS is charting a totally new course to make small video productions significantly faster and raise them to a whole new level of quality.«

Good Things Come in Small Packages

Being developed for semi-professionals, this multi-camera video publishing system opens up a world of countless possibilities. Are you ready to discover your creative potential? HIGGS is the ideal solution for a wide range of small to medium-sized events: smaller music concerts, home cooking shows, skateboard events or third division football games – the possibilities are endless! At large events, HIGGS is perfect for creating second-screen content. This involves content targeted specifically for the Internet community and social media platforms. Addressing an international audience is now possible with a minimum of effort.

Instead of a large production team, five miniaturized smart cameras and an easy-to-use tablet application now assume the job. The setup of the wireless hardware components is as simple as it could be. Just place them and get started! Each camera is equipped with a high-performance SoC processor that runs the Android operating system.

The heart of the systems is a tablet PC running the HIGGS application. »The tablet renders a huge production truck unnecessary and easily fits into your pocket,« explains Wolfgang Thieme. This implies that smaller scheduled events or "breaking news" can be recorded and edited in real-time, even while switching between multiple camera perspectives. Without any intermediate steps, the content is broadcasted directly from the tablet to all major CDNs.

Low-Delay Live Streaming

A key aspect of switching between different camera perspectives is delay. HIGGS was developed with this in mind and thus reduces delay to a minimum. That means the producer can respond to unforeseen situations on the spot. Furthermore, the intuitive editing system can be operated with one hand. The interface was deliberately designed to be as simple as possible.

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- Automatic white balance
- Automatic and manual lighting control
- Resolution and exposure control
- Zoom
- Preview function
- Storable settings
- Information overlay
- Adjustable transmission rate

The smart cameras have an integrated high-performance processor and a USB port for connectivity to an LTE modem. They are also equipped with Wi-Fi, Bluetooth and GPS technology, a rechargeable lithium battery, and acceleration, temperature and barometric pressure sensors.

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The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. Its research activities are conducted by 66 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of nearly 24,000, who work with an annual research budget totaling more than 2 billion euros.

The **Fraunhofer Institute for Integrated Circuits IIS** is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. It ranks first among all Fraunhofer Institutes. With the creation of mp3 and the co-development of AAC, Fraunhofer IIS has reached worldwide recognition. In close cooperation with partners and clients the Institute provides research and development services in the following areas: Audio & Multimedia, Imaging Systems, Energy Management, IC Design and Design Automation, Communication Systems, Positioning, Medical Technology, Sensor Systems, Safety and Security Technology, Supply Chain Management and Non-destructive Testing. About 880 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985 in Erlangen, Fraunhofer IIS has now 13 locations in 10 cities: Erlangen (headquarters), Nuremberg, Fürth, Dresden, further in Bamberg, Weischedel, Coburg, Würzburg, Ilmenau and Deggendorf. The budget of 120 million euros is mainly financed by projects. 23 percent of the budget is subsidized by federal and state funds.

Detailed information on: www.iis.fraunhofer.de/en