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Radio TechCheck

The Weekly NAB Newsletter for Radio Broadcast Engineers



NAB LABS

2014 NAB Labs Futures Park Highlights Emerging Technologies

This year's *NAB Labs Futures Park* will feature a large array of exhibits covering a wide range of global technology developments of interest to broadcasters. Substantially larger than the 2013 Futures Park, nearly half of the Park's booths this year will feature first-time exhibitors, likely to expose attendees to brand new experiences.



In its debut appearance last year, the NAB Labs Futures Park built upon the success of the *International Research Park* that was launched in 2010, as a special section of the NAB Show convention floor reserved for presentation of media-related research and development projects from around the world. Exhibits in the Futures Park represent current edge-of-the-art media technologies from governmental, academic and commercial research and development facilities. They are selected by NAB Labs for presentation in the Futures Park based on their relevance and interest to broadcasters, and typically include some historic firsts (see NHK's listing below for an example).

Exhibitors scheduled to appear in the 2014 NAB Labs Futures Park include the following organizations (listed alphabetically, with brief descriptions of the work they will present and their country of origin):



4EVER Project – This consortium of nine industrial and academic partners is exploring new technologies for higher quality video experience via Ultra HD, HEVC and DASH, for both broadcast and OTT applications. (*France*)



Advanced Media Workflow Association – AMWA develops standard formats for media workflows tailored to specific production applications. (*USA*)



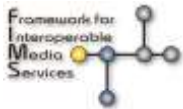
DAVID Project – Four of the partner organizations in this European Commission-funded project for long-term preservation of A/V content will show their progress in detection, restoration and avoidance of future deterioration of storage media. (*Austria/Germany/UK*)



Electronics and Technology Research Institute – ETRI will present demonstrations of augmented broadcasting, smart/targeted advertising, hybrid broadcasting and advanced emergency alerting. (*S. Korea*)

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Framework for Interoperable Media Services – FIMS is a joint effort of AMWA and the European Broadcasting Union (EBU), producing agile, service-based architectures that are adaptive to rapidly changing A/V production needs. Presentations and demonstrations by FIMS users and vendors will be made throughout the show. *(USA/Switzerland)*



goHDR/University of Warwick – This private/academic partnership will present results of live broadcast of high dynamic range (HDR) video, including capturing up to 20 f-stops of light, live mixing of HDR video, display on a state-of-the-art HDR display, and broadcast of full HDR video to tablets and smartphones. A proposed HDR video standard will also be presented. *(UK)*



ICES – Makers of high-end video and image compression systems, ICES will show a still-image compression system that enhances a lossless-compressed 2K/4K video workflow. *(France)*



InSync Technology – Advanced signal-processing developer InSync will consider integer vs. fractional frame rates in UHD standards, and show results of conversions from 4K material shot at a high integer frame rate to today's fractional HD format (i.e., 2160/120p to 1080/59p). *(UK)*



NHK – Japanese public broadcaster NHK will present its developing Super Hi-Vision format (8K video + 22.2 channel sound) with a live, closed-circuit, over-the-air broadcast in a single 6 MHz channel—the world's first such demonstration anywhere outside of Japan. NHK will also show newly shot 8K Super Hi-Vision content in a special presentation theater with a 350-inch screen and fully immersive sound system, including highlights from the Sochi Olympic Games. In addition, the exhibit will present the latest developments in portable 8K video cameras (<5 lbs), the world's first 8K realtime HEVC encoder, and a display-integrated virtual 22.2-channel sound system. The recently launched Japanese hybrid TV service *Hybridcast* will also be presented. *(Japan)*



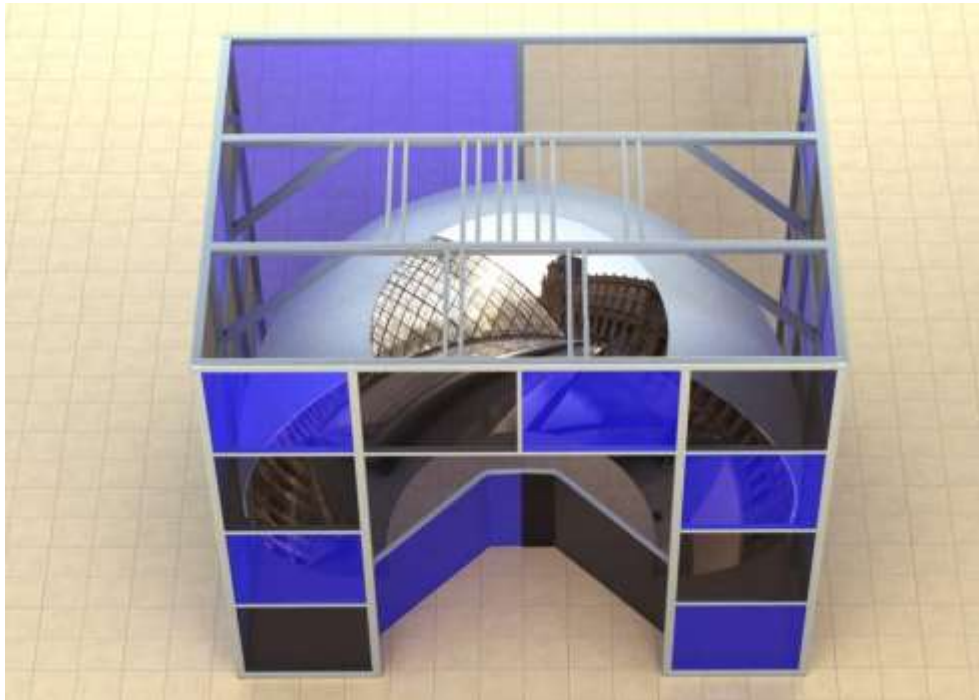
NPR Labs – NPR Labs will show results of its work with DHS and FEMA on delivery of emergency alerts to deaf and hearing-impaired via text display delivered over broadcast radio. *(USA)*



Rochester Institute of Technology – One of the world's leading academic institutes on imaging technology, RIT will present results of current research on solid-state lighting metamerism, optimized display primaries and implications of ITU Rec. 2020 for color variability amongst observers, automatic opto-electronic conversion characterization for video cameras, and digital watermarking for anti-piracy. *(USA)*



Sichuan University – This large research university will show a low-cost, immersive 3D projection display that wraps around the viewer with a 200+ inch curved screen, providing greater than 4K resolution and heightened realism through its panoramic presentation. *(China)*



Sichuan University's Immersive 3D Projection Display



Vision III Imaging – This advanced visualization developer will show high resolution (4K) 3D video using parallax-induced imagery. (USA)



Zaxel Systems – A developer of high-speed and high frame-rate video servers and video processing software, Zaxel Systems will show 6K content with direct, real-time 6K-to-8K conversion. (Japan)

The 2014 NAB Labs Futures Park will once again be located in the North Hall of the Las Vegas Convention Center. Enter at Booth N1631.

Webinar Planned on Audio Codecs for Broadcast

On Wednesday March 26, 2014 at 12:00 pm EDT, the Sports Video Group will present a free, 45-minute webinar produced by the DTV Audio Group entitled *A Practical History and Review of Audio Codecs for Broadcast*.



Subjects covered will include the history and progress of audio codec technology, why codecs are still required, what they will be asked to do in the future, how they can continue to balance desire for “more” with the goal of “better,” and their ongoing impact on broadcasters and consumers. Q&A time will be provided.

The presenter is Tim Carroll, founder of Linear Acoustic and CTO of the Telos Alliance. He will be introduced by Dave Mazza, SVP and CTO of NBC Olympics.

The event is sponsored by Calrec Audio, Dale Pro Audio, Dolby, DTS, Lawo, and Linear Acoustic. Registration information is available [here](#).

NAB Broadcast Engineering Conference Proceedings 2014

Learn about the latest and hottest technologies used by broadcasters and electronic media around the world. This selection of more than 90 papers from the 68th annual conference features Ultra HDTV, advanced television technologies, digital radio advancements, audio over IP, hybrid television, next generation sports production, media asset management, video description and captioning, ancillary broadcast services, over-the-top technologies and services, and more.

Add it to your NAB Show registration or pick it up onsite at the two NAB Stores located in the Las Vegas Convention Center.

