Next-Generation Video / Television Services and Standards

Webcast Type:
Panel
2011 IEEE Consumer Communications & Networking Conference
Webcast URL:
javascript:openWin('https://dl.comsoc.org/comsocdl/DRM-authentication.action?path=LoginUser&tutorialid= 910519','500','700','Shopping Cart')
Status:
Free for Members
Duration:
85minutes
Presentation Date:
Sun, 01/09/2011
Free to Members Date:
Mon, 01/09/2012

Abstract: New technologies are emerging that are destined to change the world of television and other video applications as they now exist. The development of appropriate international standards for deployment of new services will be an important element of these developments. Some examples include the High Efficiency Video Coding standard that is now under development by ISO/IEC MPEG and ITU-T VCEG in their new Joint Collaborative Team on Video Coding (JCT-VC), the emergence of stereoscopic 3D video for a wide variety of applications and form factors, robust scalable video coding for multi-party videoconferencing over unreliable packet networks, IPTV and dynamic adaptive streaming on HTTP for Internet video delivery, and 1080p50/60 and ultra high-resolution television This panel will discuss emerging the technology for next-generation video systems, new developments in standardization, and what kinds of further developments are needed toward creating the longer-term future of video systems and services.

Panel members
Gary J. Sullivan, Ph.D.
Gary J. Sullivan has been a longstanding chairman or co-chairman of the ITU-T Video Coding Experts Group (VCEG), the video subgroup of the ISO/IEC Moving Picture Experts Group (MPEG), the ITU-T/ISO/IEC Joint Video Team (JVT), and more recently the ITU-T/ISO/IEC Joint Collaborative Team for Video Coding (JCT-VC). He is best known for leading the development of

the ITU-T H.264 | ISO/IEC 14496-10 MPEG-4 Advanced Video Coding (AVC) standard from the inception of the project through several editions and extension efforts, including the Fidelity Range Extensions (FREext), professional profiles, Scalable Video Coding (SVC) and 3D / Stereo / Multiview Video Coding (MVC). He is a Video/Image Technology Architect in the Windows division of Microsoft Corporation. At Microsoft he has been the originator and lead designer of the DirectX Video Acceleration (DXVA) video decoding feature of the Microsoft Windows operating system. He and the team efforts that he has led have been recognized by an ATAS PrimeTime Emmy Engineering Award, a pair of NATAS Technology & Engineering Emmy Awards, the IEEE Consumer Electronics Engineering Excellence Award, the INCITS Technical Excellence Award, the IMTC Leadership Award, the University of Louisville J. B. Speed Professional Award in Engineering, the Microsoft Technical Achievement in Standardization Award, and the Microsoft Business Achievement in Standardization Award. He is a Fellow of the IEEE and SPIE. Dr. Sullivan holds B.S. and M.Eng. degrees in Electrical Engineering from the University of Louisville, and Ph.D. and Engineers degrees in Electrical Engineering from the University of California at Los Angeles. Prior to joining Microsoft in 1999, he was the Manager of Communications Core Research at PictureTel Corporation, a Howard Hughes Fellow and member of the technical staff in the Advanced Systems Division of the Hughes Aircraft Corporation, and an avionics software engineer with Texas Instruments.

Ajay Luthra, Ph.D.

Ajay Luthra is Senior Director/Fellow of Technical Staff in Advanced Technology Group for Motorola Mobile Devices and Home, located in San Diego, CA. In this role, he is responsible for advanced development work in the areas of Digital Video Compression & Processing, Internet Video, 3D TV, Cable Head-End system design, Advanced Set Top Box architectures and Home Networking. Before joining Motorola, he served as a Director, Communication and Video Systems Lab (1990-1995) for Tektronix and a manager for the DSP Group (1985-1990). He has been an active member of MPEG committee for more than seventeen years where he has chaired several technical sub-groups and pioneered the
MPEG-2 extensions for studio applications. He was associate rapporteur/vice-chair of Joint Video Team (JVT), consisting of ISO/MPEG and ITU-T/VCEG experts. The JVT developed the Emmy awards winning video coding standard known as MPEG-4 AVC / H.264. He has also been the US Head of Delegates (HoD) to MPEG and chair of INCITS/L3.1 committee since 2004. He was an Associate Editor of IEEE Transactions on Circuits and Systems for Video Technology (2000-2002) and also a Guest Editor for its Special Issues on H.264/AVC Video Coding Standard, July 2003 and Streaming Video, March 2001. He is a Senior Member of the IEEE. Dr. Luthra holds a B.E. (Hons) from BITS, Pilani, India, an M.Tech. in Communications Engineering from IIT Delhi, and a Ph.D. from Moore School of Electrical Engineering,
University of Pennsylvania.

Authors:

Sullivan, Gary J.
Luthra, Ajay
