

Evaluation & Quality Control



Moderator: José Antonio Garcia
Engineering Manager, EBC / SET



Test methodology for evaluating ISDB-TB Digital TV signal reception

Speaker: Cristiano Akamine
Mackenzie Presbyterian University/Coordinator of the Digital TV Research Laboratory of the Mackenzie School of Engineering



Speaker: Eliésio Silva Jr.
Video Account Manager / Tektronix



Medição Objetiva da Qualidade do Sinal de Vídeo

Speaker: Guilherme Castelo Branco
Diretor Regional / PHASE/ VIDEO CLARITY

16h30 – 18h00 | 01/09/2016 *Thursday* | Room 12

Content Production

EVALUATION & QUALITY CONTROL

Moderator: **JOSÉ ANTONIO GARCIA** – Gerente de Engenharia da EBC/ SET

Gerente Técnico de Manutenção do SBT / SET

Signal tests, from the studio to the viewer, are important for quality control. The number of programs presented increases, but there are not enough professionals to monitor the quality. Without proper monitoring of the equipment, undetected problems can spread and multiply throughout the entire production low, right to the display screen. From 50-inch HDTV screens, to cell phone-size devices, with signals distributed over the air, by cable or over the internet, they all need to flawlessly decode the signals.

- **Test methodology for evaluating ISDB-TB Digital TV signal reception**

Speaker: Cristiano Akamine

Universidade Presbiteriana Mackenzie/Coordenador do Laboratório de Pesquisas em TV Digital da Escola de Engenharia Mackenzie

The purpose of this presentation is to explain the methodology used by the Digital TV Research Laboratory of the Mackenzie School of Engineering in evaluating ISDB-TB Digital TV signal reception. The results of tests carried out simultaneously at 12 TV stations in the metropolitan region of São Paulo will be commented on. Based on measurements made on the MackTuner (signal level, CRR, PER, SNR, speed, distance from the tower and other GPS information) one can carry out various types of analyses of the coverage for mobile and fixed reception.

- Speaker: **Eliésio Silva Jr.** – *Video Account Manager / Tektronix*

- **Medição Objetiva da Qualidade do Sinal de Vídeo**

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Diretor Regional / PHASE/ VIDEO CLARITY

Os desafios para assegurar a qualidade do sinal de vídeo se tornaram mais difíceis principalmente com a evolução dos algoritmos de compressão, evolução dos formatos de vídeo e com o surgimento de novas plataformas de distribuição. O controle da qualidade do sinal só é possível com a utilização de ferramentas de análise objetiva tanto em tempo real quanto off-line.



JOSÉ ANTONIO GARCIA

Engineering Manager - EBC/ SET

He has a technical education from the Francisco Moreira da Costa Electronic Technical School at Santa Rita do Sapucaí-MG and a degree in Telecommunications Engineering from the São Judas University in São Paulo-SP. He has worked since 1977 in Radio and TV companies, in the fields of maintenance, projects, installations and quality control, participating in the implementation of studio, transmitters and systems at major domestic and international events. He is currently Engineering manager of EBC – the Communication Company of Brazil, in São Paulo. He has been involved with SET since



its early days, and currently participates in the technology division and in the technical module of the SBTVD Forum.

CRISTIANO AKAMINE

Researcher and Professor - UNIVERSIDADE MACKENZIE/ SET

He has an undergraduate degree in Electrical Engineering from the Mackenzie Presbyterian University (1999), Master's and Doctorate in Electrical Engineering from the State University of Campinas (2004/2011). He has been a researcher in the Digital TV Laboratory of the Mackenzie Presbyterian University since 1998; took an internship at the NHK Science and Technology Research Laboratories (STRL), holds various patents and has had several articles published. He is a professor on the Electrical Engineering course and the Graduate Program in Electrical Engineering and Computing (PPGEEC) of the Mackenzie Presbyterian University. He has experience in the field of Electrical Engineering, with the emphasis on Digital TV, digital communication, channel encoding, on-board systems, reconfigurable logic and software-defined radio. He is currently Specialist Visiting Professor at the Unicamp School of Technology and a participant on the Graduate Program of the School of Electrical Engineering and Computing (FEEC) at Unicamp.



ELIESIO SILVA JR

Video Account Manager - Tektronix

Eliésio Silva Júnior graduated as an Electronics Technician and Telecommunications Technician; he also has an undergraduate degree in Electronics, a graduate degree in Satellite Transmission and a graduate degree in Logistics, an MBA in Enterprise Management and an MBA in Digital TV. He was a substitute member on the Regional Council of the CREA RJ, between 2009 and 2010; worked at TV Record from 1993 to 1995; at TV Globo between 1997 and 1999; Globosat, between 1994 and 2010 and has been at Tektronix since 2010. He is currently Tektronix Distribution and Accounts Manager for Latin America.



GUILHERME CASTELO BRANCO

Regional Director - PHASE/ VIDEO CLARITY

Electronics Engineer from UFRJ, with an MBA in Business Strategy from the FGV-SP. He has been in the market since 2004, together with Phase, holding technical and commercial positions over time and for six years he has been running the company's São Paulo branch

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