

TV 3.0: STAY TUNED FOR THE TECHNOLOGICAL REVOLUTION THAT IS COMING

The development of TV 3.0 is entering its final stretch. The SBTVD Forum, with the support of the Ministry of Communications, RNP, and a group of 90 researchers from 7 universities, is conducting tests and research, developing specifications, and creating demonstrations. Some partial demonstrations are already available at the SET Expo 2023. An end-to-end demonstration of the new system is planned for the SET Expo 2024. Decree No. 11,484/2023 establishes a deadline until the end of 2024 for the completion of the studies by the SBTVD Forum, the Ministry of Communications, and Anatel. The operation of TV 3.0 is expected to begin in 2025. Come and learn more about the technological advancements of TV 3.0 that will revolutionize television in Brazil.

Moderator: Luiz Fausto de Souza Brito, Coordinator – Technical Module, SBTVD Forum

- **Cristiano Akamine**, Researcher at the Digital TV Laboratory at Universidade Presbiteriana Mackenzie
- **Carlos Cosme**, Innovation specialist in the Telecom group of the Infrastructure and Security Hub, Globo
- **Marcelo F. Moreno**, Associate Professor, Federal University of Juiz de Fora (UFJF)



Luiz Fausto de Souza Brito, Coordinator – Technical Module, SBTVD Forum

He has a Professional Master's Degree in Applied Computing from UECE (2015), an Executive MBA in Information Technology from UFRJ (2011), an extension course in Networks and Video over IP from UFRJ (2009) and a degree in Electrical Engineering with an emphasis on Electronics from UFRJ/ USU (2005). He is currently a Technology and Regulatory Specialist at Globo, coordinator of the Technical Module of the SBTVD Forum, coordinator of SWG 6B-2 (Multimedia) of ITU-R WP 6B (Broadcast service assembly and access), member of the Brazilian Delegation at ITU-R (SG 6 – Broadcasting Service) and at CITEL (CCP.II – Radiocommunications).



Cristiano Akamine, Researcher at the Digital TV Laboratory at Universidade Presbiteriana Mackenzie

He holds a degree in Electrical Engineering from Universidade Presbiteriana Mackenzie (1999), a master's degree and doctorate in Electrical Engineering from the State University of Campinas (2004/2011). He has been a researcher at the Digital TV Laboratory at Universidade Presbiteriana Mackenzie since 1998, completed an internship at the NHK Science and Technology Research Laboratories (STRL) and was

a Visiting Specialist Professor at the Faculty of Technology at Unicamp. He is currently a professor in the Electrical Engineering course and the Postgraduate Program in Electrical and Computer Engineering (PPGEEC) at Universidade Presbiteriana Mackenzie and coordinator of the Digital TV Laboratory at Universidade Presbiteriana Mackenzie. He is a member of the deliberative council of the Brazilian Terrestrial Digital TV System Forum (SBTVD), Brazilian Society of Television Engineering (SET) and Associate Editor of IEEE Transactions on Broadcasting. He has several patents and several published articles and has experience in the area of Electrical Engineering, with an emphasis on digital TV, digital communication, channel coding, embedded systems, reconfigurable logic and software-defined radio.



Carlos Cosme, Innovation Specialist in the Telecom group of the Infrastructure and Security Hub, Globo

Carlos Eduardo Cosme Ribeiro has a degree in Electrical Engineering from Universidade Estácio de Sá (2007), a postgraduate degree in Control and Automation Engineering from Universidade Gama Filho (2011) and a specialist in Computer Networks from PUC Rio (2013). He has worked at Globo since 1998, where he worked in the operations and support areas. He is currently an innovation specialist in the Telecom group of the Infrastructure and Security Hub. He is a member of the Brazilian Terrestrial Digital TV System Forum (SBTVD), where he coordinates the Audio Coding, Video Coding and Subtitles working groups in the TV 3.0 Project.



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Visiting Researcher at the International Audio Laboratories Erlangen, the Institute for Integrated Circuits of the Fraunhofer Society (Fraunhofer IIS) and the Friedrich-Alexander-Universität (FAU), Germany. He has been an associate professor at the Department of Computer Science at the Federal University of Juiz de Fora (UFJF) since 2011. He holds a master's degree (2002) and a doctorate (2008) in Information Technology from PUC-Rio. He has worked on national and international research, technology transfer and standardization projects in Digital TV, IPTV and multimedia since 2004. Since 2013, he has been leader of Question 13/16 "Multimedia application platforms and end systems for IPTV" of the International Union of Telecommunications (ITU-T), where he also co-leads the groups WP1/16 "Infrastructure for Multimedia Systems" and TG – Media Coding, in "Immersive Media Coding for metaverse applications and services" (in the Focus Group in the ITU-T metaverse). Since 2015, he has been coordinator of the Middleware GT of the SBTVD Forum, leading efforts to standardize DTVPlay, the development of its test suite and its evolution towards TV 3.0. He is a productivity fellow in technological development from CNPq (DT-2).