

THE POSSIBILITIES IN THE FACE OF THE RAPID TECHNOLOGICAL EVOLUTION OF TRANSMISSION AND RECEPTION SYSTEMS

The idea of the panel is to explore the subject of evolution of transmission systems, starting from the possibility of computerized simulation of 5G, to the evolution of open TV transmissions, which in digital allowed the operation of several transmitters on the same frequency, allowing the intersection of carriers, ending with the challenge faced in the reception process, considering the rapid evolution of transmission systems.

Moderator: Silas Adauto do Nascimento, Technical and Engineering Manager at RecordTV Brasília

Speakers

DIGITAL IRD CERTIFICATIONS – WHAT, WHY AND HOW?

Speaker: Pasi Toiva, VP, Business Development - Labwise by Allegro DVT SAS
Digital TV testing and certification are critical components of the digital broadcasting ecosystem. The benefits of digital TV testing and certification are numerous and far-reaching, ranging from improved quality and reliability to increased compatibility and interoperability. Firstly, digital TV testing and certification help to ensure that digital broadcasting systems are compatible and interoperable. Secondly, digital TV testing and certification help to improve the quality and reliability of digital TV signals. Finally, digital TV testing and certification help to maintain consumer confidence in digital TV systems. By ensuring that digital TV systems are reliable and of high quality, consumers are more likely to continue using these systems and recommending them to others.

5G CONNECTION SIMULATION AT 28 GHZ BETWEEN RBS AND USERS IN AN URBAN ENVIRONMENT

Thiago Schmoeller, CAE Applications Specialist
With the advent of new low latency and higher bandwidth technologies, ensuring a stable and secure connection for users has never been more necessary. A great ally of high technology companies is the use of computer simulation, allowing the study of various operating scenarios, ensuring a more optimized, safe and efficient system. In

this panel, we present a case study of the connection between 5G devices and a radio base station (RBS), operating at 28 GHz in an urban environment. Through the results, it is possible to optimize the operation of the system in question and prepare it to deal with the adversities of real urban environments. The use of computational simulation is a valuable tool for the design, analysis and development of modern communication systems, mitigating project risks and errors, and preventing technology companies from wasting their resources on field corrections of poorly sized systems.

IMPLEMENTATION OF SFN NETWORK

Speaker: Tomaso D'Angelo Wantuil Papi, Engineering and Technology Supervisor, RecordTV Brasília

This presentation will discuss the implementation of the SFN Network using both national and imported transmitters to ensure comprehensive coverage. It will address the harmonious and synchronous operation of the network, utilizing satellite transmission, digital radio, and IP networks as means of delivering the BTS signal to the SFN network transmitters.



Silas Aduino do Nascimento, Technical and Engineering Manager at RecordTV Brasília

Silas has over 36 years of experience in Broadcasting, working in public companies and TV stations commercials. He worked for many years in the support and maintenance of transmitters, starting from tube equipment to solid state transmitters, reaching the Digital TV revolution, which allows operation with SFN (Single Frequency Network).



Pasi Toiva, VP, Business Development - Labwise by Allegro DVT SAS

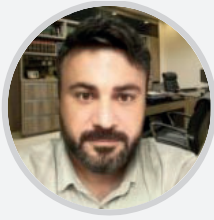
Pasi Toiva has more than 25 years of experience in the development, implementation and certification of digital TV receivers. Pasi began his career in digital TV working in STB development as a software engineering lead and project manager, developing one of the first DVB STBs that was deployed in the German market. After the development of STB, Pasi joined the Finnish Broadcasting Company to work as a project manager in the production, delivery and transmission of digital TV content and developed the infrastructure to prepare the broadcaster for the transition from analogue TV to digital TV broadcasts. Later, Pasi joined Ortikon Interactive to be the R&D manager at a digital TV application development company. During this time, Pasi led the development and deployment of value-added applications and head-end products. Pasi then embarked on the next career era in certifying digital TV receivers and was one of the founding partners and CEO of Labwise. Labwise is one of the leading companies that have successfully implemented the formal certification process for STBs and IDTVs in several countries.



Thiago Schmoeller, CAE Applications Specialist

He holds a Bachelor's degree in Electrical Engineering (2014) from Faculdade SATC, Criciúma. He also holds a Master's degree in Electrical Engineering from the Federal University of Santa Catarina (UFSC), where he carried out his research together with the Electromagnetism and Electromagnetic Compatibility Laboratory (MagLab). Professionally, he worked for more than ten years on the technology team at NSC TV, an affiliate of Rede Globo in Santa Catarina, with experience in the project and installation of radio and television studios, production and display systems, and audio and video

signal processing. Currently, he works as a CAE Application Specialist at ESSS, providing support to customers, mainly in the simulations of electric motor and transformer projects, using the Ansys Maxwell and Ansys MotorCad tools.



Tomaso D'Angelo Wantuil Papi, Engineering and Technology Supervisor, RecordTV Brasília

Tomaso Papi, is Engineering and Technology supervisor at RecordTV Brasília, has worked in broadcasting for over 12 years, has experience in all areas of a television station, from studio and external capture, production, exhibition, transmission, preparation of projects for TV, support, IT infrastructure for broadcast, Telecom and RF. He worked in the transition stage of the analogue-digital signal, led the process of activating the single frequency network (SFN) for digital TV in broadcasters affiliates from RecordTV. Graduated in Electrical Engineering with emphasis on Telecommunications and Postgraduate in Digital TV System from INATEL.