14h - 15h30 | Aug. 24, 2017 – *Thursday* | ROOM 12

TECHNOLOGY FOR TV AND RADIO

YOUR STATION PERFORMANCE: INFRASTRUCTURE SHARING & ENERGY EFFICIENCY & COVERAGE

Chair: Valderéz De Almeida Donzelli- Director – ADTHEC Engenharia e Sistemas / SET

How to optimize investments, reduce costs with existing infrastructures, often shared and achieve good station performance. The infrastructure conditions of installation for the shelter of the equipment its power, air conditioning, transmission lines and connections, radiating system and tower, influence the coverage of your station? Does the passive intermodulation caused by the installation (rust on the tower, connectors, disconnected antennas, etc.) interfere with the coverage? Energy efficiency in the performance of X equipment shelter sharing. What are the challenges for the internalization of digital TV, using shared infrastructure? Can City Hall Infrastructures be appropriate to receive the Digital TV system? What are the biggest challenges? When the analog TV is turned off, will the new Digital TV station be ready to serve the desired coverage area? The experience of broadcasters and service providers and equipment.

- **FEASIBILITY OF DESIGNING A PIM RATED BROADCAST SYSTEM**

Speaker: José Roberto Elias - Commercial Manager - Dielectric e IFTelecom

Passive Intermodulation (PIM) aspects will be discussed. What it is, causes, countermeasures and case studies. Its effects on antennas, towers, cables and accessories, as well as measurements will be approached in detail.

- **OPEX AND SHARING: THE OPTIMIZATION OF INVESTMENTS AS AN ALTERNATIVE TO INCREASE THE COVERAGE OF DIGITAL TV**

Speaker: Sérgio Luís Nogueira Martines - Executive Director - SM Facilities

He will present the experience of SM Facilities in installing repeaters, where the focus is on optimization and cost reduction, with actual cases of the options being considered or proposed using a range of structure and sharing models. The talk will also deal with the different business models that can be used for expanding Digital TV coverage. Lastly, the discussion will cover the advantages of CAPEX and OPEX within the current scenario.

- **OPTIMIZATION OF THE TRANSMISSION SYSTEM THROUGH ANALYSIS OF INSTALLATION, INFRASTRUCTURE AND DIGITAL SIGNAL COVERAGE**

Speaker: Ramiro Frugoli Franco - Project and Development Engineer - Ideal Indústria e Comércio de Antenas LTDA

Important considerations to be analyzed to minimize destructive interference of the quality of the digital signal transmitted. Antenna installation site, what is the best option? As the support structure (tower and bracket) and the shape of the antenna installation can impair the quality of the transmitted signal; Sharing possibilities (tower x antenna) is it worth?

- **RELOCATION OF CHANNELS, EXECUTION PROCESS ,SUCCESS STORIES**

Speaker: Andre Vinicius de Andrade Araujo - Project Manager - Seja Digital

Exposition of the processes involved in the execution of channel remanagement and reporting of field experiences..

- **SFN & GAP FILLER: CONCEPTS, PRACTICAL APPLICATIONS AND THE IMPORTANCE OF CARE WITH PLANNING AND INFRASTRUCTURE**

Speaker: Glenn Zolotar - Systems Engineering Manager - Hitachi Kokusai Linear

Over the past few years we have seen the use of SFN increase considerably in Brazil, but there are still many questions about the topic. This lecture simply and directly addresses the basic requirements of this type of network, and also shows that as important as understanding what SFN is, are the necessary care with network planning and the necessary infrastructure so that the good results of the implementations are obtained.

Valderez De Almeida Donzelli- Director – ADTHEC Engenharia e Sistemas / SET

Holds a degree from the industrial school of engineering (FEI) in electronic engineering, power engineering and production. She obtained a Master's in electrical engineering, defending the dissertation "Polarização Elíptica: Influência no desempenho de cobertura da TV Digital" (free translation, Elliptical Polarization: Its influence on the coverage performance of Digital TV", and is reading for her doctorate with the survey "TV Digital: Disponibilidade de Sinal" (free translation, Digital TV: Signal Coverage), both from the Mackenzie University. She also holds a specialization in IT from FESP, ICT management from the FGV and Advanced Digital TV Systems, from INATEL. Technical Director of ADTHEC (www.adthec.com.br), a company offering consultancy, planning, design, research and analysis of risks and solutions for public and private sector radio, television and telecommunications stations, with the emphasis on the design and installation of digital and FM transmission systems. She actively participates in a range of Brazilian and international working groups under the coordination of Anatel, the Ministry of Communications, Universities,

Associations and Research Centers. She began her professional activities in bio-engineering at the Heart Institute of the Clinics Hospital, lectured at the FAAP and worked for over years in several departments of the Padre Anchieta Foundation (Cultura TV and Radio, in São Paulo). In charge of the technical projects division, she coordinated the design and planning of the TV and radio network, testing and implementing new technologies, while managing the relations with prefectures, broadcasters, the Ministry of Communications and Anatel. She has headed up studies, tests and measurements involving the systems for implementing digital TV in Brazil, as well as the group that reviewed the regulations for sound and picture broadcasting services. She is currently deputy director for education and member of the editorial committee of SET, where she has also held the position of relationship and editorial director.

José Roberto Elias - Commercial Manager - Dielectric e IFTelecom

With a degree in Electronic Engineering from UNICAMP in 83, and an MBA from the FGV in 2005, he has vast experience in Brazilian and multinational companies in the fields of Telecommunications and Broadcast. He currently holds the position of Sales Manager at IF Telecom, and is also a Professor at the Fluminense Federal University on the MBA course in Irradiant Systems and Digital Encoding

Sérgio Luís Nogueira Martines - Executive Director - SM Facilities

Executive Director of SM Facilities, a company specializing in broadcasting engineering services. Holds a Civil Engineering degree from UFPR and has an Electronics Technician qualification from CEFET-PR, a specialization course in Works Management from CEFET-PR and an MBA in Project Management from the FGV. He has been in the field of television for 26 years, especially in transmission and reception systems, setting up TV generators and repeaters, and project management for major live events. He is a consultant in project management, with experience in the fields of IT, Energy, Finance and the Environment, among others.

Ramiro Frugoli Franco - Project and Development Engineer - Ideal Indústria e Comércio de Antenas LTDA

Graduated from Pontifical Catholic University - PUC MINAS and MBA in executive management of business by PUC-Minas, since 2006, he has participated in dedicated studies focused on the Brazilian Digital broadcasting system, together with a team of Technicians and Engineers, who developed the first radiating circular / elliptical polarization system in Latin America. He currently works as an engineer for the development of special and customized radiant systems for applications to the digital terrestrial transmission system.

Andre Vinicius de Andrade Araujo - Project Manager - Seja Digital

Telecommunications Engineer graduated from UNESA in 2006, with an MBA in Project Management by FGV in 2014, working in Television Engineering since 1996 in the areas of Operation, Maintenance and Transmission Systems Projects for pay-TV and open TV companies. Currently holds the position of Deployment Manager in the channel relocation of Seja Digital.

Glenn Zolotar - Systems Engineering Manager - Hitachi Kokusai Linear

Technician in Electronics by the Technical School of Electronics "Francisco Moreira da Costa". Graduated from the University of North Texas with an MBA in Strategic Management. Responsible for technical training in digital TV transmission of Hitachi Kokusai Linear.

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