

广播与电视技术



Radio & TV Broadcast Engineering

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《广播与电视技术》是由国家广播电视总局主管,国家广播电视总局广播电视规划院主办,《广播与电视技术》编辑部编辑出版的国家级技术期刊,是发布广播电视科技政策,反映事业建设成就,介绍高新技术,交流工作经验,传播各种信息的重要媒体。本刊主要面向各级广播电视行业主管部门、各级广播电台、电视台、网络公司、发射台、微波站、卫星站、节目制作单位及电教系统,同时对企业、工矿、学校、部队等具有公共广播电视设施的管理人员、技术人员也有参考价值。

为繁荣学术交流,本刊已加入《中国学术期刊网络出版总库》、“万方数据”和“维普中文科技期刊数据库”,有权选取部分论文在本刊关联平台(如广电猎酷网 www.lieku.cn、“广电猎酷”微信公众号等)发布,作者著作权使用费已随论文稿酬一次性给付。本刊充分尊重作者的原创成果并合理保护作者享有的权利,如作者不同意本刊之外其他形式的发布,请在来稿中声明,本刊将作适当处理。本刊及主办单位对本刊已发布作品的内容和观点不持有任何立场、不做出任何承诺或保证、不承担任何责任。

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[15] 广播电视台融合媒体平台智慧运维实践

河北广播电视台为了保障业务用户能够获取高质量、连续性的服务,为电视台安全生产、安全播出提供支撑,根据广电总局《电视台信息系统运行维护服务通用要求》指导要求构建智慧运维系统,有效提升信息系统运维能力,充分保障融合媒体云平台安全、高效运行。本文是开展融合媒体平台智慧运维实践的心得,可咨业界同行借鉴。

[30] 基于CycleGAN的4K超高清电视色域及动态范围转换算法

目前4K超高清电视宽色域和HDR技术并没有全面普及,适配于4K超高清电视节目内容数量仍然不足,有很大一部分超高清节目需通过转换技术来满足超高清电视节目制作及播出需求。为了达到更舒适的人眼视觉效果,各种转换算法应运而生。本文提出了一种改进的基于CycleGAN的深度学习网络,并通过网络训练实现了基于CycleGAN的4K超高清电视色域、动态范围之间的转换,值得参考。

[62] 基于广电网络的多渠道统一支付平台建设与应用

构建有线电视多渠道统一支付平台是解决有线电视网络用户缴费难题的一种有效途径。本文较为全面地介绍了基于广电网络的多渠道统一支付平台的建设内容、技术创新点,以及实际应用情况,可供有线电视同行借鉴。

[80] 面向广播电视的5G网络规划研究及仿真分析

相对于传统运营商而言,广电5G网络具备频段不同、制式多样、业务融合等差异化特点,决定了面向广播电视的5G网络在规划建设方面存在一定独特性。本文分析了5G网络规划的特点与流程,并以深圳城区人口密集区域为覆盖场景进行网络规划仿真,提出了“高低频组合、宏微站协同、多业务融合”的基本规划策略。

[132] 广电云平台安全监控系统设计与应用

如今,云平台已经越来越多的应用到广播电视台,用于支撑媒体融合的多业务流程。如何有效掌握云平台系统资源运行情况,满足不同用户层面的管理需求,保障云平台的安全稳定运行,是云平台智能运维监控的重要关注点。本文介绍了重庆广电集团在云平台安全监控中的成功经验,值得同行借鉴。



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[15] Practice of Intelligent Operation and Maintenance of Converged Media Platform in Radio and TV Station

In order to ensure that business users can obtain high-quality and continuous services, and provide support for safe production and safe broadcasting, Hebei Radio and Television Station builds a intelligent operation and maintenance system according to guidance requirements of "General Requirements for Operation and Maintenance Services of Television Information System" issued by NRTA, which effectively improve operation and maintenance capability of information system, and fully guarantee safe and efficient operation of converged media cloud platform. This paper shows the experience of carrying out smart operation and maintenance practice of converged media platform, which can be used for reference by industry peers.

[30] Research on Color Gamut and Dynamic Range Conversion Algorithm for 4K UHD TV Based on CycleGAN

At present, wide color gamut and HDR technology of 4K UHD TV have not been fully popularized, and the amount of content suitable for 4K UHD TV programs is still insufficient. A large part of UHD programs need to be converted to meet production and broadcasting needs of UHD TV programs. In order to achieve more comfortable human visual effect, various conversion algorithms have emerged. This paper proposes an improved deep learning network based on CycleGAN, and realizes the conversion between color gamut and dynamic range of 4K Ultra HD TV based on CycleGAN through network training, which is worthy of reference.

[62] Construction and Application of Multi-channel Unified Payment Platform Based on Radio and TV Network

Building a multi-channel unified payment platform for CATV is an effective way to solve payment problem of CATV network user. This paper comprehensively introduces construction content, technological innovations, and practical application of multi-channel unified payment platform based on radio and TV network, which can be used for reference by CATV peers.

[80] Research and Simulation Analysis of 5G Network Planning for Radio and TV

Compared with traditional operators, radio and television 5G networks have differentiated characteristics such as different frequency bands, diversified formats and business convergence, which determine that 5G network for radio and television has a certain uniqueness in planning and construction. This paper analyzes characteristics and processes of 5G network planning, and conducts network planning simulation with densely populated areas in Shenzhen as a coverage scenario, and proposes basic planning strategy of "high and low frequency combination, macro and micro station cooperation, and multi-service convergence".

[132] Design and Application of Security Monitoring System for Radio and Television Cloud Platform

Nowadays, cloud platforms have been more and more applied to radio and television stations to support multi-business process of media convergence. How to effectively grasp operation condition of cloud platform system resources, meet management needs of different user levels, and ensure safe and stable operation of cloud platform is an important focus of cloud platform intelligent operation and maintenance monitoring. This paper introduces Chongqing Broadcasting Group's successful experience in cloud platform security monitoring, which is worthy of reference.