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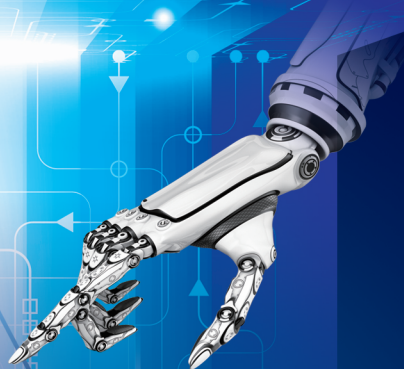
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《广播与电视技术》是由国家广播电视总局主管,国家广播电视总局广播电视规划院主办,《广播与电视技术》编辑部编辑出版的国家级技术期刊;是发布广播电视科技政策,反映事业建设成就,介绍高新技术,交流工作经验,传播各种信息的重要媒体。本刊主要面向各级广播电视行业主管部门、各级广播电台、电视台、网络公司、发射台、微波站、卫星站、节目制作单位及电教系统,同时对企业、工矿、学校、部队等具有公共广播电视设施的管理人员、技术人员也有参考价值。

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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【14】基于卫星通道的应急广播地震速报建设

建设覆盖全国的秒级地震预警、分钟级地震烈度速报系统,对于减少地震灾害造成的人员伤亡和财产损失意义重大。应急广播作为地震速报信息的一个重要发布手段,需要根据技术进步和国家要求,进一步改进地震速报速度,实现秒级预警。本文提出一套基于卫星通道传输的地震速报应急广播系统,充分发挥卫星信号传输速度快、覆盖广的优势,系统传输链路高效,终端实时响应,能够满足地震速报应急广播消息快速播发时效性要求。基于卫星通道传输的地震速报应急广播系统是卫星在应急广播领域的创新应用,探索出一条广播电视公共服务的新模式新路径。

【40】基于FOV编码的8K VR视频端到端系统的研究与搭建

国家广播电视总局近年先后发布了5G高新视频系列技术白皮书、5G高新视频系列标准体系,引导行业培育打造5G条件下更高技术格式、更新应用场景、更重视听体验的高新视频新业态。VR视频是高新视频业态的重要组成部分,但实际应用中由于高分辨率、高传输带宽、低延时、沉浸感等不足原因,导致VR视频质量参差不齐,限制了VR视频业务的良性发展。本文针对目前VR视频端到端业务系统普遍存在的内容审核难、传输带宽大等问题开展研究,可进一步拓展广电同仁的技术视野。

【76】覆盖全场景的有线电视门户业务访问量智能分析平台的设计与实现

伴随有线电视网络新业务的落地,如何全盘掌握各类型业务的终端访问情况并根据业务的受欢迎程度合理布局对于业务部门的日常内容运营成为新的课题。覆盖全场景的门户业务访问量智能分析平台的建设目标就是通过对TVOS终端门户系统中各不同技术类型的业务访问入口进行可配置的采集点设置,通过终端行为满足条件时触发上报的形式屏蔽业务之间的技术差异,对用户的业务访问量数据进行抽取挖掘,再通过后台查询、报表提取、开放式第三方接口、周期性元数据生成等多种途径将数据分析结果进行能力输出,为业务部门、上级部门、第三方机构提供业务规划依据。

【106】中波发射台标准化智慧运维平台的设计与应用

在智慧广电建设中,打造标准化、数字化、智能化的安全保障运行体系,提升中波发射台的智慧化安播水平,是智慧广电建设的重要组成部分。本文结合当地发射台的具体情况,采用新理念新技术对传统发射机房进行智能化、网络化监管,通过“全域采集、多维监管、预前告警、智能诊断”的手段,建立了一套技术先进、功能齐全、反应快捷、数字化、网络化、自动化为一体的广播电视安播监管运维体系,实现了全台智慧运维,降低台站人员劳动强度,提高运行维护技术水平,可供同行借鉴。

【135】直播卫星业务全景监控平台设计与实现

近年来我国直播卫星业务飞速发展,相关技术系统的数量和复杂度不断增加,对应的安全防护措施也需要同步提升。本文设计实现了一套基于直播卫星平台的业务应用监控系统,通过对卫星直播资源基础信息的集中管理和相关设施运行情况的量化监控,及时发现潜在风险,增强卫星直播业务系统的安全监控能力,提高故障快速判断和响应能力,保障安全播出。



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[14] Construction of Emergency Broadcasting Earthquake Quick Report Based on Satellite Channel

It is of great significance to reduce casualties and property losses caused by earthquake disasters to build a nationwide earthquake warning system with a magnitude of seconds and a rapid intensity reporting system with a magnitude of minutes. As an important means of releasing earthquake quick report information, emergency broadcasting needs to further improve the speed of earthquake quick report and realize second level early warning according to technological progress and national requirements. In this paper, a set of emergency broadcast system for earthquake quick report based on satellite channel transmission is proposed, which gives full play to the advantages of fast satellite signal transmission speed and wide coverage. The system transmission link is efficient, and the terminal responds in real time, which can meet the requirements of rapid broadcast timeliness of emergency broadcast messages for earthquake quick report. The earthquake quick report emergency broadcasting system based on satellite channel transmission is an innovative application of satellite in the field of emergency broadcasting, exploring a new mode and new path of public service of radio and television.

[40] Research and Construction of 8K VR Video End-to-End System Based on FOV Coding

In recent years, National Radio and Television Administration has successively issued 5G high-tech video series technology white paper and 5G high-tech video series standard system to guide the industry to cultivate and create new high-tech video formats with higher technology formats, updated application scenarios and better audio-visual experience under 5G conditions. VR video is an important part of high-tech video business. However, in practical application, due to the lack of high resolution, high transmission bandwidth, low delay, immersion and other reasons, the quality of VR video is uneven, which limits the benign development of VR video business. In this paper, the problems such as difficult content audit and large transmission bandwidth that are common in VR video end-to-end service system are studied, which can further expand the technical vision of radio and television colleagues.

[76] Design and Implementation of CATV Portal Business Traffic Intelligent Analysis Platform Covering All Scenarios

With the landing of new cable TV network services, how to comprehensively gain the terminal access information of various types of services and reasonably arrange according to the popularity of services has become a new topic for the daily content operation of business departments. The construction goal of the portal business traffic intelligent analysis platform covering the whole scenario is to shield the technical differences between businesses by setting configurable collection points for the business access portals of different technology types in the TVOS terminal portal system, and to extract and mine the user's business traffic data through background query, report extraction, open third-party interface, periodic metadata generation and other methods can output the data analysis results to provide business planning basis for business departments, superior departments and third-party organizations.

[106] Design and Application of Standardized Intelligent Operation and Maintenance Platform for Medium Wave Transmitting Station

In the construction of smart radio and television, it is an important part of the construction of smart radio and television to create a standardized, digital and intelligent security operation system and improve the smart broadcasting level of the medium wave transmitting station. Based on the specific conditions of the local transmitting station, this paper adopts new concepts and technologies to conduct intelligent and networked supervision on the traditional launchers' rooms. By means of "global collection, multi-dimensional supervision, pre-alarm and intelligent diagnosis", it has established a set of radio and television security supervision and operation system with advanced technology, complete functions, fast response, digitalization, networking and automation, which has realized the intelligent operation and maintenance of the whole station. It reduces the labor intensity of station personnel and improves the technical level of operation and maintenance, which can be used for reference by peers.

[135] Design and Implementation of Overall View Monitoring Platform of Live Broadcasting Satellite Services

In recent years, with the rapid development of China's live satellite business, the number and complexity of related technical systems are increasing, and the corresponding security protection measures also need to be improved simultaneously. This paper designs and implements a set of business application monitoring system based on the live satellite platform. Through the centralized management of the basic information of the satellite live broadcast resources and the quantitative monitoring of the operation of relevant facilities, it can find out the potential risks in time, enhance the safety monitoring ability of the satellite live broadcast business system, improve the fault rapid judgment and response ability, and ensure the safe broadcast.