# 广播与电视技术》212

## **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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## [10] 基于国家、市、县三级平台联网联动联播的全域应急广播模式的探索与实践

根据国家应急广播体系规划与要求,中央人民广播电台与宁波广播电视集团联合开展了国家应急广播预警信息发布试验项目,以验证"国家应急广播预警信息自动适配播发系统"与宁波市应急广播平台、宁波市下属县级应急广播系统、市级中波发射台、广播频率、楼宇广播等多模式播发能力,旨在建立中央、市、县三级联网联动联播工作机制,提高应急信息传递时效性,扩大应急广播覆盖范围。本文介绍了系统的建设及应用情况,值得业界同行借鉴。

## [37] 广播融媒体直播系统建设

伴随着媒体融合纵深推进,广播领域的融媒体建设需求也变得非常迫切。无锡基于广播全频率直播室建设了融媒体直播平台,实现了"多信源采集、多媒体融合、多平台播出"三大功能,为无锡广播的融媒体变革提供了技术支撑,本文所述的广播融媒体直播系统建设实践及创新,可咨参考。

## [56] 基于DOCSIS网络的全IP化演进的探讨与实践

随着DOCSIS标准的不断迭代,其设备数据带宽大幅提升,结合IP组播技术,已具备数字电视业务的承载能力,可实现广电网络的全IP化。本文认为基于DOCSIS网络的全IP化演进可最大程度发挥同轴电缆的潜力,既符合信息传输技术的发展趋势,又能解决有线网络施工改造过程中光纤难以入户的困境,有助于广电网络充分利用已有资源参与宽带网络市场的竞争。

## [82] 论频率迁移中数字电视发射机的主要技术要求

2020年4月,工业和信息化部将700MHz频段频率使用规划调整用于移动通信系统,广播电视无线发射台站的频率迁移工作迫在眉睫。本文提出了频率迁移中数字电视发射机应具备的几方面技术要求,对提升地面数字电视单频网的稳定性具有一定的参考意义。

## [107] 直播卫星"户户通"工程的省级推进方案设计与实施

广播电视直播卫星"户户通"工程是由广电总局牵头组织实施的"政治工程""民生工程""扶贫工程",被多地政府纳入民生实事项目。工程的顺利实施离不开各省的有效推进。本文通过对安徽省的工程实践的全面回顾,论述了省级广电机构推进直播卫星"户户通"工程的措施和经验,值得业内同行借鉴。



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## [ 10 ] Exploration and Practice of Global Emergency Broadcasting Mode with Networking, Linkage and Simulcast Based on National, City, and County Three-level Platform

According to plan and requirements of national emergency broadcasting system, China National Radio and Ningbo Radio and TV Group jointly launched national emergency broadcasting early warning information release test project to verify multi-mode broadcasting capabilities of "National Emergency Broadcasting Early Warning Information Automatic Broadcasting System", Ningbo emergency broadcasting platform, county-level emergency broadcasting system in Ningbo, municipal-level medium wave transmitter, broadcasting frequency, building broadcasting and so on, which aims to establish a working mechanism with networking, linkage and simulcast at national, city, and county three-level, improve the timeliness of emergency information transmission, and expand the coverage of emergency broadcasting. This paper introduces construction and application of the system, which is worthy of reference by peers.

## [ 37 ] Construction of Live Broadcasting System of Converged Media for Radio

With in-depth advancement of media convergence, media convergence construction in radio field has also become very urgent. Wuxi has built a live broadcasting platform based on all-frequency live broadcasting room, which has realized three major functions of "multi-source collection, multimedia convergence, and multi-platform broadcasting" and provides technical support for converged media reform of Wuxi radio. Construction practice and innovation of converged media live broadcast system can be referred to.

#### [ 56 ] Discussion and Practice of All-IP Evolution Based on DOCSIS Network

With continuous iteration of DOCSIS standard, its device data bandwidth has been greatly increased. Combined with IP multicast technology, it has carrying capacity of digital TV service, and can realize all-IP radio and television network. This paper argues that all-IP evolution based on DOCSIS network can maximize the potential of coaxial cable, which is not only in line with development trend of information transmission technology, but also can solve the difficulty of fiber access in process of cable network construction and transformation, and help radio and television network to make full use of existing resources to participate in the competition of broadband network market.

#### [ 82 ] Main Technical Requirements of DTMB Transmitter in Frequency Migration

In April 2020, Ministry of Industry and Information Technology adjusted frequency usage plan of 700MHz band for mobile communication system, and frequency migration of radio and television wireless transmitting stations is imminent. This paper puts forward several technical requirements for DTMB transmitter in frequency migration, which has certain reference significance for improving the stability of DTMB SFN.

## [107] Design and Implementation of Provincial-level Promotion Plan of DTH "Hu Hu Tong" Project

"Hu Hu Tong" project of live broadcasting satellite is a "political project", "people's livelihood project" and "poverty alleviation project" organized and implemented by NRTA, and has been included in livelihood project by many local governments. Smooth implementation of the project is inseparable from effective advancement of these provinces. Through a comprehensive review of engineering practice in Anhui Province, this paper discusses measures and experience of provincial-level radio and television institutions to promote live broadcasting satellite "Hu Hu Tong" project, which is worthy of reference by peers.