

网络、通信、安全

新型的基于信道状况的自适应HARQ方案

刘 锋¹, 黄生叶¹, 冯穗力², 叶 梧²

1.湖南大学 计算机与通信学院, 长沙 410082

2.华南理工大学 电子与信息学院, 广州 516000

收稿日期 2008-9-2 修回日期 2008-11-21 网络版发布日期 2010-3-11 接受日期

摘要 基于信道状况提出自适应的混合自动重传请求(HARQ)方案。充分利用发送端获得的上次成功传输时重传的冗余信息次数和信道估计的信息,判断当前的信道状况,由此确定当前发送的数据帧被成功接收可能需要重传的次数K,将初传信息和K次增量冗余信息一起发送给接收端译码,最大可能地一次性将数据发送成功,减少传输出错再启动重传协议发送增量冗余信息的次数。仿真表明,新的方案在吞吐率基本不变的情况下,传输延时降低,易于实现。

关键词 [混合自动重传请求](#) [吞吐率](#) [传输时延](#) [信道状况](#)

分类号 [TP391](#)

Novel adaptive HARQ system based on channel condition

LIU Feng¹, HUANG Sheng-ye¹, FENG Hui-li², YE Wu²

1.College of Computer and Communication, Hunan University, Changsha 410082, China

2.College of Electronic and Information, South China University of Technology, Guangzhou 516000, China

Abstract

An HARQ scheme is proposed based on channel condition. It utilizes the last successful transmission needed retransmission time and estimate channel information from initiating terminal fully to estimate the channel condition, and use it to estimate the possibility retransmission time K of the next transmission data frame to be successfully accepted. The primary transmission information and K times Incremental Redundancy (IR) information are sent to the acceptance end at one time, try best to transmit the data successfully at one time. The time of startup retransmission protocol to transmit incremental redundancy information because of error transmission is decreased. Simulation shows that the new mechanism has the same throughput but reduces the transmission delay and is easy implemented.

Key words [Hybrid Automatic Repeat Request \(HARQ\)](#) [throughput rate](#) [transmission delay](#) [channel condition](#)

DOI: 10.3778/j.issn.1002-8331.2010.08.028

通讯作者 刘 锋 liufengxtu@163.com

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(844KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“混合自动重传请求”的相关文章](#)

▶ 本文作者相关文章

· [刘 锋](#)

· [黄生叶](#)

· [冯穗力](#)

· [叶 梧](#)