Design of a dynamic bandwidth reallocation scheme for hot-spot video stream transmission over the IEEE 802.11 WLAN

ABSTRACT
This paper proposes and analyzes the performance of streaming video transmission over IEEE 802.11 WLAN. A simple but robust bandwidth allocation method is proposed to enable dynamic update of transmission schedule on the AP (access point). With a continuous trace of status of each video stream channel, the proposed scheme can efficiently reclaim and reallocate the network bandwidth, leading to minimizing the wasteful transmission on the bad channel, without jeopardizing the timely transmission of other active streams. Simulation result shows that the proposed scheme can keep the actual packet error rate less than 5%

INDEX TERMS
- IEEE Terms
  - Bandwidth, Computer science, Delay, Digital multimedia broadcasting, Information retrieval, Performance analysis, Streaming media, Throughput, Wireless LAN, Wireless networks

- INSPEC
  - Controlled Indexing
    - bandwidth allocation, scheduling, video streaming, wireless LAN, wireless channels

  - Non Controlled Indexing
    - IEEE 802.11 WLAN, dynamic bandwidth reallocation scheme, hot-spot video stream transmission, transmission schedule, video stream channel