عنوان مقاله:

Characterization of Wireless Mesh Backhaul Networks with MIMO Systems

نویسندگان:

Navin Haghighizadeh - *Microwave/mm-wave & Wireless Communications Research Laboratory Department of Electrical Engineering Amirkabir University of Technology, Tehran, Iran*

Abbas Mohammadi - *Microwave/mm-wave & Wireless Communications Research Laboratory Department of Electrical Engineering Amirkabir University of Technology, Tehran, Iran*

خلاصه مقاله:

In this paper, a wireless mesh backhaul using MIMO systems has been studied. In the mesh networking, information is routed from source to destination over multiple wireless links. On the other hand, using wireless MIMO systems, the channel capacity is significantly increased without additional signal power or bandwidth. We have used the linear programming to optimize the routing determination to maximize the throughput. This technique is used to calculate the throughput for a hexagonal grid of base-stations, for single-hop, multi-hop, SISO, and MIMO transmissions for various network scenarios.

کلمات کلیدی:

Mesh networking, MIMO, Throughput, Multihop, Mobile Backhaul, Wireless backhaul