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Wireless Community Networks from Routing Perspective: A Systematic Review
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Abstract
Recently, the internet has created a global community by connecting millions of individuals, devices, and organizations. Unfortunately, internet connectivity is still not available to many people around the world. To provide everyone with internet access, network infrastructures must be expanded, and internet connection costs must be reduced, particularly in developing regions. Therefore, Wireless Community Networks (WCNs) have emerged as a crucial alternative for individuals who lack direct access to internet services provided by traditional internet service providers. This research paper aims to investigate the routing protocols that have been widely employed in WCNs over the past decade. Specifically, it focuses on evaluating the strengths and limitations of these protocols to assess their effectiveness and reliability in establishing optimal routing paths for end-to-end message delivery across the network. A set of recommendations and future directions are proposed to facilitate further research into unresolved challenges related to WCN routing protocols. © (2024) International Association of Engineers. All rights reserved.

Author Keywords
Babel; BMX6; MPR; OLSR; Routing; Wireless community networks

Index Keywords
Web services; Babel, BMX6, Global community, Individual devices, MPR, OLSR, Routing-protocol, Routings, Systematic Review, Wireless Community Networks; Routing protocols

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