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## General Information

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## Editor-In-Chief

**Prof. Maode Ma**

College of Engineering, Qatar University, Doha, Qatar



I'm very happy and honored to take on the position of editor-in-chief of JCM, which is a high-quality journal with potential and I'll try my every effort to bring JCM to a next level...[Read More] (<http://www.jocm.us/index.php?m=content&c=index&a=lists&catid=18>)

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📅2023-03-10

Volume 18, No. 3 has been published online! (<http://www.jocm.us/list-285-1.html>)

📅2023-03-09

Volume 18, No. 1-2 has been indexed by Scopus. (<http://www.jocm.us/scopusresults.pdf>)

📅2023-02-10

Volume 18, No. 2 has been published online! (<http://www.jocm.us/scopusresults-v18,1-2.pdf>)

Home (<http://www.jocm.us>) > Published Issues (<http://www.jocm.us/list-201-1.html>) > 2021 (<http://www.jocm.us/list-248-1.html>) > Volume 16, No. 8, August 2021 (<http://www.jocm.us/list-258-1.html>) >

## Analysis of Cross-Ocean Microwave Communication Systems Using Point-To-Point, Space Diversity and Hybrid Diversity Configurations

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*Abstract*—Microwave communication is still important to use in the backhaul network of telecommunications systems because it can reach remote areas that are difficult to reach by cable technology. One of the implementations is cross-ocean backhaul communication which is widely applied in the archipelago. So, to reach the remote areas, proper backhaul network planning is required. A point-to-point microwave transmission network can be a solution to reach remote areas of islands separated by oceans. The problem that occurs is that the multipath fading on the ocean route is quite large so that to overcome this we need a diversity

technique. There are various diversity configurations such as space, frequency, and a combination of both or Hybrid. Based on the simulation and theoretical calculations, concluded that point-to-point configuration producing the quality of communication below the standards set by the ITU-R (ITU-T G.821). The use of space diversity and hybrid diversity provided a significant increase in the quality of communication both in terms of availability, unavailability, and fading margin.

*Index Terms*—Microwave, cross-ocean, space diversity, hybrid diversity, availability

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