

عنوان مقاله:

Designing Underwater Cellular Networks Parameters

محل انتشار:

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خلاصه مقاله:

Oceanographic data collection, pollution monitoring, offshore exploration, disaster prevention, assisted navigation and tactical surveillance are some of the applications of underwater networks. Underwater networks should send the gathered information to other users or an offshore station via a base station in the sea. Since the available bandwidth in underwater is severely limited, frequency reuse and cellular networks concepts are very important. In this paper, after driving the ratio of signal to interference for underwater acoustic channels, the constraints for the cell radius are determined. One of the important results of this work is that, for special parameters like bandwidth, it may be impossible to provide the required signal to interference ratio and bandwidth for the network users. Furthermore, in this paper, number of supportable users, per-user bandwidth, and the user capacity for a cellular underwater network .are determined

كلمات كليدى:

Acoustic propagation, en, undersea cellular networks, Frequency reuse

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