

Pressure Based Routing Protocol for Underwater Wireless Sensor Networks: A Survey

**Ahmad Khasawneh, Muhammad Shafie Abd Latiff, Hassan Chizari,
MoeenUddin Tariq, Abdullah Bamatraf**

Underwater wireless sensor networks (UWSNs) are similar to the terrestrial sensor networks. Nevertheless, there are different characteristics among them such as low battery power, limited bandwidth and high variable propagation delay. One of the common major problems in UWSNs is determining an efficient and reliable routing between the source node and the destination node. Therefore, researchers tend to design efficient protocols with consideration of the different characteristics of underwater communication. Furthermore, many routing protocols have been proposed and these protocols may be classified as location-based and location-free routing protocols. Pressure-based routing protocols are a subcategory of the location-free routing protocols. This paper focuses on reviewing the pressure-based routing protocols that may further be classified into non-void avoidance protocols and void avoidance protocols. Moreover, non-void avoidance protocols have been classified into single factor based and multi factor based routing protocols. Finally, this paper provides a comparison between these protocols based on their features, performance and simulation parameters and the paper concludes with some future works on which further study can be conducted.

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