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Title: Low-Level Communication Time Analysis in Real-Time Wireless Sensor Networks

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Abstract: Studying the time components and delays introduced by the lower level communication protocols in realtime wireless sensor networks, as well as taking them into consideration at the design phase of such protocols, still remains an open issue in the field. This paper addresses this problem through a detailed analysis of the communication times and their implications in providing a predictable low- level support for realtime sensor networks. A measurement framework is proposed specifically on this purpose and then used in an extensive set of experiments to validate this timing analysis.

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