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Wireless Sensor Networks: A Monitoring Tool for Improving Remaining Lifetime Estimation?

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In the past decade, wireless sensor networks (WSNs) have emerged as an innovative structural monitoring technology. Their advantages such as rapid deployment, ease of scalability, and self-configuration allow to reduce the costs, to increase the flexibility, and to simplify the operability of monitoring. However, these advantages are weakened by the power limitations that impose low power hardware with limited resources and carefully chosen data acquisition, data processing and data communication policies. Based on three real-life deployments, this paper shows that despite the scarce resources and the still existing deficiencies current wireless sensor networks allow users to reliably perform demanding and practically relevant monitoring tasks.

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Ключевые слова:

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