

# Real-Time Biomedical Telemetry System for Ambulances

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## ABSTRACT

This chapter discusses the development and implementation methodology of a real-time biomedical telemetry system for ambulances. Comparable systems, together with their authors' claimed improvements, are evaluated and analysed in this article. We start by providing an overview of the most relevant systems, and then introduce the reader to the methodology used to develop and implement a real-time communications system that allows low-cost data transmission from a medical monitor and haematology analyser installed in an ambulance. This system was evaluated in terms of how well it can provide health assistance within a 50 km radius of the Torrecardenas Hospital (part of the public health-care system in southern Spain). Results have been technically and medically validated, and encourage further implementation of this technology, since it was proved to be reliable, while the transmitted data allow a correct and thorough patient evaluation throughout the patient's transportation to the hospital.

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