Human Activities Recognition Based on Expert System

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Abstract : Recognition of human activities from sensor data is an active research area, and the main objective is to obtain a high recognition rate. In this work, we propose a recognition system based on expert systems. The proposed system makes the recognition based on the objects, object states, and gestures, taking into account the context (the location of the objects and of the person performing the activity, the duration of the elementary actions, and the activity). This work focuses on complex activities which are decomposed into simple easy to recognize activities. The proposed method can be applied to any type of activity. The simulation results show the robustness of our system and its speed of decision.

Keywords : human activity recognition, ubiquitous computing, context-awareness, expert system
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