A Contribution to Human Activities Recognition Using Expert System Techniques

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Abstract : This paper deals with human activity recognition from sensor data. It is an active research area, and the main objective is to obtain a high recognition rate. In this work, a recognition system based on expert systems is proposed; the recognition is performed using the objects, object states, and gestures and 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). The system recognizes complex activities after decomposing them 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.