



Embedded system used for classifying motor activities of elderly and disabled people

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Abstract

Our modern societies are confronted to a new growing problem: the global ageing of population. In order to find ways to encourage elderly people to live longer in their own home, ensuring the necessary vigilance and security at the lowest cost, some tele-assistance systems are already available commercially. This paper presents an embedded prototype able to detect automatically the falls of elderly people while monitoring their motor activities. The classification algorithm using an artificial neural network, the communication and location capabilities of this system are specifically highlighted. In the last part, some experimental results and social issues stemming from Gerontologic Institute Ingema are discussed.

