Elderly People Health Monitoring System using Fuzzy Rule Based Approach

MONDAY 3, 2015

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International Journal of Advanced Computer Research (ISSN (Print): 2249-7277 ISSN (Online): 2277-7970)

Volume-4 Number-4 Issue-17 December-2014

Abstract

Monitoring the health condition of elderly people is a complex problem that involves different medical units and requires continuous monitoring. Besides there is the case if we realistically assume that there does not exist a set of rules that are readily acceptable to all human experts. The parameters used in identifying the medical conditions of a patient are really a vague, subjective measure rather than an objective measure. A more effective system is needed as the electronic patient records become more and more easily accessible in various health organizations such as hospitals, medical centers and insurance companies. These data provide a new source of information that has great potentials in monitoring the health condition of Elderly people. In this paper we have developed a fuzzy inference engine for finding risk factor of elderly People. The reasoning is based on a fuzzy inference system implemented using MATLAB. Fuzzy logic is used to represent, interpret, and compute vague and/or subjective information which is very common in medicine. The Detector is a fuzzy rule-based system. Using clinical information of more than 500 patients treated at the Tafila Technical University Medical Center, we have generated preliminary simulated detection results.