Abstract

An Expert system is an interactive computer-based decision tool that uses both the facts and heuristics to solve difficult decision making problems. Fuzzy logic is a new way of expressing probability. Neural Networks are eminently suited for approximating and designing of fuzzy Controllers and other types of Fuzzy Expert System. Neuro-fuzzy systems are connectionist models that allow learning as artificial neural network, but their structure can be interpreted as a set of fuzzy rules. Fuzzy logic and neural networks form the basis of the majority aided diagnostic intelligent systems. It would be interesting to combine the two approaches to exploit both advantages. In this paper we propose an ARM Cortex-M3 Based Interactive Neuro Fuzzy Expert System for diagnosis of breast cancers proposed on an Ex-DBC System for benign and malignant digital mammographic findings. In order to assist physicians, Radiologists and others in clinical diagnosis, a wide set of breast cancer detection rules was designed using Digital Mammographic dataset are discussed in this paper.
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**Index Terms**

Computer Science

Artificial Intelligence
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ARM Cortex-M3  Neural Networks  Fuzzy Logic  Ex-DBC System  Benign
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