Fetal Anomaly Detection in Ultrasound Image

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Abstract

Ultrasound is one of the most popular medical imaging technologies that can help a physician evaluate, diagnose and treat medical conditions. Although ultrasound imaging is generally considered good medical tool but the overall detection rate of Congenital Heart Defects (CHD) using ultrasound image remain anomic. Congenital Heart Defects are the heart problem that occurs before birth. Recognizing Congenital Heart Defects at right time is a difficult task for Physicians due to lack of subject specialists or inexperience with the previous cases or even as the children they can’t express their problem in a proper way. In order to improve the diagnosis accuracy and to reduce the diagnosis time, it has become a demanding issue to develop an efficient and reliable medical Decision Support System. Hence machine learning approaches such as neural networks have shown great potential to be applied in the development of medical Decision Support System for Heart Disease. Fetal anomaly detection mainly carried out in four steps. Noise removal, segmentation, feature extraction and classification.

References
9. V. Ravi H.-J. Zimmermann “Fuzzy rule based classification with FeatureSelector and modified threshold accepting” Lehrstuhl Unternehmensforschung, RWTH, Templergraben 64, D-52056, Aachen, Germany Received 8 September 1998; accepted 22 December 1998
10. I. Nedeljkovic “Image Classification Based On Fuzzy Logic” MapSoft Ltd, Zahumska 26 11000 Belgrade, Serbia and Montenegro Commission VI, WG VI/1-3
17. FU Z L. “Some New Methods for Image Threshold Selection.” Computer Application,

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