

Edge Detection and Morphological Image for Estimating Gestational Age Based on Fetus Length Automatically

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Abstract : The use of ultrasonography in the medical world has been very popular including the diagnosis of pregnancy. In determining pregnancy, ultrasonography has many roles, such as to check the position of the fetus, abnormal pregnancy, fetal age and others. Unfortunately, all these things still need to analyze the role of the obstetrician in the sense of image raised by ultrasonography. One of the most striking is the determination of gestational age. Usually, it is done by measuring the length of the fetus manually by obstetricians. In this study, we developed a computer-aided diagnosis for the determination of gestational age by measuring the length of the fetus automatically using edge detection method and image morphology. Results showed that the system is sufficiently accurate in determining the gestational age based image processing.

Keywords : computer aided diagnosis, gestational age, and diameter of uterus, length of fetus, edge detection method, morphology image

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