EVALUATION OF THE QUALITY OF ULTRASOUND IMAGE COMPRESSION BY FUSION OF CRITERIA WITH A SUPPORT VECTOR MACHINE (WedAmOR5)

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Abstract :

In the framework of a robotized tele−echography, ultrasound images are compressed and sent from a patient station to an expert one. An important task concerns the evaluation of the quality of the compressed images. Indeed, transmitted images are the only feedback information available to the medical expert to remotely control the distant robotized system and to propose a diagnosis. Our objective is to measure the image quality with a statistical criterion and with the same reliability as the medical assessment. We propose in this work a new method for the comparison of compression results. The proposed approach combines different statistical criteria and uses the medical assessment in a training phase with a support vector machine. We show the benefit of this methodology through some experimental results.

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