A NEW APPROACH FOR REAL TIME MOTION ESTIMATION USING ROBUST STATISTICS AND MPEG DOMAIN APPLIED TO MOSAIC IMAGES CONSTRUCTION. (ThuAmOR4)

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Abstract :
Dominant motion estimation in video sequence is a task that must be often be solved in Computer Vision problems but involves a high computational cost due to the overwhelming amount of data to be treated when working in image domain. In this paper we introduce a novel technique to perform motion analysis in video sequences taking advantage of the motion information of MPEG streams and its structure, using imaginary line tracking and robust statistics to overcome the noise present in compressed domain information. In order to demonstrate the reliability of our new approach, we also show the results of its application to mosaic image construction problem.