

## AUTOMATIC REGISTRATION OF SIMULTANEOUSLY OVERLAPPING IMAGES

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### **Abstract:**

The application of remote sensing has proved to be of tremendous importance over time in earth observation, monitoring and development. Images (the output of a remote sensing process) provide an overview of a particular place and afford the observer the opportunity to extract detailed information that will aid in making informed decisions. However, these images often come in overlapping patches from the sensor and also are of two-dimensional (2D) views. For a holistic perspective and to enable a stereoscopic view of the desired scene of interest, the bit by bit images must be fused together to produce a single image (mosaic). This fusion is the sole thrust of image registration. This study is intended to provide solution to the traditional (manually assisted) image registration by developing a model that performs automatic conjugate point identification, feature match and registration of multiple overlapping images. An approach which makes use of the relationship between the total matched points and final estimated inliers voted for the automatic registration is proposed for the evaluation of the model's accuracy.

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