

In the present work we study use of graph matching algorithms for registration of important image points obtained from different sources. We especially focus on acquiring more precise data for final 3D model reconstruction from a large set of images with already known corresponding points. We give a short overview of graph matching problem including definitions, computational complexity and various approaches and examples of using graph matching algorithms for solving various problems in many fields. Then we propose our algorithm for approximation of attributed relational minimum cost subgraph isomorphism problem that is able to match a large number of huge graphs in reasonable time. We also give a short overview of point correspondence problem and we implement suitable edge and vertex metrics for matching partial 2D and 3D model geometry and we test proposed algorithm on both real and synthetic data. We restrict our work to weak point correspondences supposing the final reconstructed 3D model is built-up from faces.