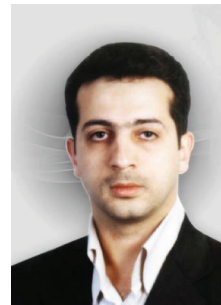


Third Laureate Applied Research



- ◆ **Project title:** Ortho-photo-Mosaic and topographical map production using aerial and satellite images
- ◆ **Researcher:** Hamid Esmaeili (B.Sc.)

Abstract:

Nowadays the need to provide geospatial information, coverage maps and revising them are increasing. National Geographic Organization (N.G.O) is the major producer of geometrics' products. Both Sepehr satellite receiver Center and digital aerial camera have played significant role in providing photo maps (Ortho-photo) with better required accuracy and at higher speeds for civilian and military application. The main purposes of this project has been to produce 1:10000 scale topographic maps using satellite imagery and production of 1:5000 scale ortho-photo-mosaic picture using digital camera.

The 1:10000 Scale digital maps were produced after radiometric and geometric corrections on the images, triangulation operation were performed on the blocks with the appropriate distribution of control and check points. The results of many different tests indicate that the achieved accuracy is suitable for such scale digital maps. Further it should be mentioned that for producing 1:5000 scale ortho-photo-mosaic images the digital cameras were only used along GPS + INS data. Finally the results of triangulation represent that required accuracy for producing 1:5000 scale ortho-photo-mosaic images were obtained.

