

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

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SURFACE RECOGNITION FOR EMERGENCY LANDING PURPOSES

Abstract

The article describes system for emergency landing on the Earth. It should be used as a part of navigational system in aerospace area. The aim of the system is to support the pilot who is being informed about suitable landing sites on the Earth's surface. As a next step of the landing procedure there should be a system which navigates the pilot to the selected place and direction. Designed system is based on camera and from acquired images finds out characteristic patterns of the terrain parts. This way separates the image of the surface into several areas and for each of them it can be determined which sort of area it is. Thus the surface areas can be divided into sets with common character, e.g. forests, water surfaces, fields, meadows and so on. For some of them it is also important to determine their properties—e.g. for fields it is their direction of plowing. In the article there is described used algorithm and results on training set. In the future there is an effort to join designed algorithm with surface database and on-board sensors.