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## Drought Monitoring by Using Remote Sensing Technique in Iran

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### Abstract

Iran is the country which is located in the arid and semi arid region in the world. In these regions the natural disasters cause a lot of problems in the field of social and economy. One of the famous desirable natural events is drought. Although this event has took place in the world, but nowadays it's intense and force should be increased. This phenomenon should be related to the climate changes and agronomic conditions . Drought is a complex natural event. A universally accepted definition does not exist. It is acknowledged that the major causes of drought are lower than average rainfall. According to wide impacts of drought conditions on Iran in the recent years it looks necessary for us to use some techniques for monitoring the impacts of this natural phenomenon on our region in a dynamic system. Also, it can help us to have an optimum risk management in during severe drought conditions. Recent researches around the world suggest that the best method for this aim is the application of remote sensing techniques. In this paper we explain this method, in particular reflective remote sensing, such as NDVI (Normalized Difference Vegetation Index), VCI (Vegetation Condition Index), MVCD (Maximum Value Composite Differential) and MCVI (Monthly Condition Index ( . With these indexes we produced a number of maps which represented drought condition in Iran. We also could forecast the drought condition for three years (1998 to 2000) in the various regions in Iran. The drought conditions will be forecast in the north of Iran in this period.

**Keywords:** Drought assesment, monitoring, remote sensing, NDVI, vegetation index