



Forest Fires Prediction: A Proposal for a new hybrid index

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Résumé en anglais

All over the world, statistics show that forest fires rate has been increasing in the recent decades although many studies and various indices were proposed to predict fire occurrence and then take in advance the necessary actions. These indices use only weather data to make their decision of prediction. In this paper, a new proposal for a fire detection index is presented that combines between meteorological and topographic parameters. The reason is to reduce errors due to inaccuracies in weather prediction. The parameters of slope, aspect and elevation are introduced, and a comparison is held between the proposed index and other existing indices that reveals the distinction of the new combination over the present models: Angstrom, Nesterov, KBDI and Canadian Fire Weather Index. The implementation of the proposed hybrid index using data from Lebanon demonstrated its ability to accurately predict the hazard of fire occurrence.

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Liens

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