

## عنوان مقاله:

An Observability Based Monitoring scheme for Voltage Stability Margin: A Practical System Case Study

## محل انتشار:

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## خلاصه مقاله:

This paper presents a practical approach for voltage stability margin (VSM) monitoring in a pilot project, in which two related steps are considered. Through the planning stage of a practical project, it is necessary to make the grid observable to actualize the VSM monitoring during the operation. So, an observability based VSM monitoring scheme is proposed in this work. Firstly, using observability analysis and state estimation requirement, optimal location of metering devices is determined for the Hormoz distribution grid as a practical system case study. Secondly, using the information sent by metering devices, the VSM monitoring is evaluated using artificial neural network (ANN) application during the operation. To assess the performance of the proposed method, it is compared with a case, in which metering infrastructures are connected to the whole of buses. For further simulation, input data combinations of the ANN application are varied throughout two different scenarios.

## کلمات کلیدی:

component; Smart Grids, Voltage Stability Margin, Artificial Neural Network, Observability Analysis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/755808>

