**ABSTRACT**

This report describes the algorithm used to detect and analyze modes present in the oscillatory type signal measured in power system using **Prony’s Analysis** method and its extended method and also that one of the problems Prony method faces are large variance and bias when analyzing noisy signal thus for this we have used **Linear Prediction** **Singular Value Decomposition Method**. To enable easier analysis and extraction of the main signal parameters- frequency and damping the described algorithm have been implemented and tested using **MATLAB** based **GUI** program. Algorithms performance, operation of developed GUI and some results are presented in this report indicating the potential use of this approach and described methods in large, interconnected power systems of today.

Acknowledgement:

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Tripura

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**ALGORITHM USED FOR CODING**