

## عنوان مقاله:

Direct Solution of Distribution System Load Flow Using Forward/Backward Sweep

## محل انتشار:

نوزدهمین کنفرانس مهندسی برق ایران (سال: 1390)

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## خلاصه مقاله:

One of the main requirements in large scale distribution systems (DSs) is an efficient load flow solution which can explicitly exploit characteristics of DSs. This paper presents a direct power flow solution not only for radial distribution systems (RDSs) but also for weakly meshed distribution systems (WMDSs) using the backward/forward sweep. The direct approaches for RDSs are presented in some papers but extension of them for WMDSs needs solving new extra equations and meshes must be located at the end of feeders. In this paper, a new method based on division of currents for WMDSs is used which can express the voltage of each load in terms of currents and common impedances of current paths directly without need to any new data. Results obtained for unbalanced, meshed and radial systems at different loading conditions, power factors and R/X ratios show that the proposed method is efficient, .fast, robustness and has great potential to be used for large scale DSs

## کلمات کلیدی:

Distribution load flow, forward/ backward sweep, direct load flow, radial distribution systems, weakly meshed distribution systems

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/153877>

