Dynamically distributed capacitors

Is a dynamic capacitor based on inverter-less active filters cost competitive?
This paper proposes a dynamic capacitor (D-CAP) based on the family of inverter-less active filters that is able to provide a dynamically controllable capacitance with active harmonic filtering integrated into the same unit. This new device is seen to be compact,and is likely to be cost competitiveagainst simple switched shunt capacitors.

What is distributed capacitance?
This distributed capacitance (Fig. 1) isa multiplicity of small capacitances existing between adjacent turnsand from anyone turn to all the others,as well as to a shield if one is used,and to a ground if one exists in the vicinity of the choke when it is installed in the equipment.

Do shunt capacitor banks work with detuning reactors?
These plants, in order to avoid very costly penalties, have traditionally utilized switchable shunt capacitor banks with detuning reactors for power factor correction, along with a separate active harmonic filter in cases where harmonic currents are an issue as well.

Compared with the above compensators, the dynamic capacitor (D-CAP) is a simple, reliable, and economical solution without bulky electrolytic capacitors, which is ...

Abstract--Dynamic voltage and frequency scaling (DVFS) is a powerful technique to reduce power consumption in a chip multiprocessor (CMP). To support DVFS in the multicore power ...

This paper proposes a dynamic capacitor (D-CAP) based on the family of inverter-less active filters that is able to provide a dynamically controllable capacitance with active harmonic ...

Conventional approaches for placement of capacitors often overlook the dynamic loading conditions experienced by distribution networks, leading to suboptimal results. To address this ...

Simultaneous optimal sitting and sizing of distributed generators and shunt capacitors has been developed for RDN to accomplish the benefits of reduction in power loss ...

AbstractThis study provides an overview of distributed generation (DG) and shunt capacitor banks (SCB) integration in radial distribution networks (RDN). The integration ...

Ultra Capacitors are most suitable for short duration of energy requirements i.e. for compensation of sags and swells. A buck-boost converterhas been used for integrating ...

Luciano Baresi, Carlo Ghezzi, Xiaoxing Ma, and Valerio Panzica La Manna, "Efficient Dynamic Updates of

Distributed Components through Version Consistency", IEEE Transactions on ...

In this paper a multi-objective framework is presented for DFR along with capacitor allocation problem over multiple time intervals as dynamic DFR considering ...

Abstract In order to solve the coordinated optimization problem of distributed generation (DG), on-load tap changer (OLTC) and capacitor banks, a dynamic reactive power ...

Thus, this article reveals the influence of integrating distributed decoupling capacitors in power modules on current sharing mechanism. The key parameters for dynamic and static current ...

Abstract--Dynamic voltage and frequency scaling (DVFS) is a powerful technique to reduce power consumption in a chip multiprocessor. To support DVFS in the multicore power delivery ...

As described in Sect.13.2, a system of distributed on-chip decoupling capacitors is an efficient solution for providing the required on-chip decoupling capacitance based on the maximum ...

By reconfiguring and allocating capacitors and distributed generation resources during these periods, the voltage profile is improved and losses are reduced. ... S. Lei, P. Ju, ...

This paper proposes a two-stage procedure to enhance the distribution system performance by determining the optimal sizes and locations of distributed generations (DGs) ...

A novel method for dynamic distribution network reconfiguration is presented in this study, which utilizes capacitors and distributed generation resources simultaneously. This method divides ...

However, among many influential factors, proper distributed generation (DGs) and capacitor placement during the planning stage are vital in bringing efficient power handling ...

This paper proposes a coordinated optimal allocation method for distributed generation, capacitor banks and soft open points in active distribution networks. Time ...

Dynamic Power Factor Correction in Industrial Systems: An Automated Capacitor Bank Control Approach ... The advent of renewable energy resources and distributed energy systems herald a new set of ...

Web: https://centrifugalslurrypump.es